

Rakstveidā sniegtās atbildes uz deputātu jautājumiem



LATVIJAS REPUBLIKAS SATIKSMES MINISTRIJA

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Rīgā 19.11.2014 Nr. 01-02/4688
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Latvijas Republikas Saeimai

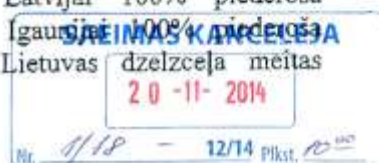
Par atbildes sniegšanu uz Saeimas
deputātu jautājumiem „Par „Rail
Baltica” projekta īstenošanu”

Satiksmes ministrijā ir saņemta Latvijas Republikas Saeimas kancelejas 2014.gada 14.novembra vēstule Nr.622.12/2-3-12/14 ar lūgumu līdz 19.novembra pulksten 17:00 sniegt rakstveida atbildes uz deputātu jautājumiem „Par „Rail Baltica” projekta īstenošanu” un satiksmes ministram A.Matišam 20.novembrī 17:00 piedalīties mutvārdu atbildes sniegšanā. Pamatojoties uz augstāk minēto, Satiksmes ministrija sniedz sekojošu informāciju:

1. Lai veicinātu sekmīgu Rail Baltica publiskās lietošanas dzelzceļa infrastruktūras izbūves projekta virzību un veiksmīgi apgūtu "Eiropas infrastruktūras savienošanas instruments" (turpmāk – EISI) garantētajās aploksnēs pieejamo finansējumu, Baltijas valstu premjerministri savā Kopīgajā deklarācijā, kas tika parakstīta Tallinā 2011.gada 10.novembrī, vienojās izveidot Igaunijas, Latvijas un Lietuvas kopuzņēmumu un šo apņemšanos apstiprināja kopīgajā deklarācijā, kas tika parakstīta Viļņā 2012.gada 20.septembrī, atbalstot ieceri uzsākt speciālu pētījumu, lai analizētu juridiskos, finanšu un citus aspektus Rail Baltica kopuzņēmuma izveidei.

Atbilstoši 2014.gada 28.oktobrī parakstītajam līgumam par „Rail Baltica” kopuzņēmuma dibināšanu 2014.gada 12.novembrī Latvijas republikas Uzņēmumu reģistrā reģistrēts triju Baltijas valstu kopuzņēmums AS "RB Rail" ar mītnes vietu Rīgā, kas nepieciešams sekmīgai plānotā dzelzceļa līnijas projekta realizēšanai.

Kopuzņēmuma faktiskie dibinātāji ir Latvijai 100% piederoša kapitālsabiedrība „Eiropas dzelzceļa līnijas”, Igaunijai 100% piederoša kapitālsabiedrība „Rail Baltic Estonia” un Lietuvas dzelzceļa meitas



uzņēmums UAB „Rail Baltica statyba”, tomēr Rail Baltica projekta patiesie labuma guvēji būs valstis. Akcionāru līgums paredz, ka galvenais kopuzņēmuma uzdevums būs "Rail Baltica" dzelzceļa projektēšana, būvniecība un mārketinga. Pārvaldības struktūra ir izveidota atbilstoši Latvijas Komerclikuma prasībām, t.i. Akcionāru sapulce, Padome un Valde. Padome sastāv no 6 locekļiem, kur katrs Akcionārs ir nominējis divus kandidātus, kurus apstiprina Akcionāru sapulce.

Baltijas valstis ir vienojušās, ka Kopuzņēmuma būtiskākais īstermiņa uzdevums ir līdz 2015. gada 26. februārim sagatavot un iesniegt Eiropas Komisijai kopīgu Baltijas valstu pieteikumu Rail Baltica projekta īstenošanai piesaistot EISI garantētās aploksnes finansējumu.

Visā Rail Baltica publiskās lietošanas dzelzceļa infrastruktūras izbūves projekta realizēšanas gaitā tiek ievēroti vairāki fundamentāli principi, kas ir nostiprināti AS „RB Rail” Akcionāru līgumā:

- projekts tiek finansēts galvenokārt no Eiropas Savienības finanšu avotiem aptuveni 85% apmērā, kā arī ar parāda finansēšanu, lai nodrošinātu maksimāli zemu nepieciešamo finansējumu no attiecīgo Valstu budžetiem;
- nevienam Akcionāram un nevienai Valstij, uzsākot Rail Baltica projektu, nav jāgarantē finansiālas saistības attiecībā uz pilnīgu Projekta pabeigšanu;
- katra Valsts nodrošina tikai to līdzfinansējumu, kas nepieciešams attiecīgajā valstī esošajai Dzelzceļa daļai. Kopuzņēmuma finanšu līdzekļi, kas Dzelzceļa būvniecībai novirzīti vienā valstī, konkrēti, ES finanšu līdzekļi, kas piešķirti no attiecīgajai Valstij paredzētās aploksnes finansējuma, vai no attiecīgās Valsts budžeta, vai no trešās personas finanšu instrumentiem (institucionālām ilgtermiņa projektu kredītiestādēm (piemēram, ERAB, EIB, NIB u.c.)), tiek izmantoti tikai un vienīgi Dzelzceļa būvniecībai attiecīgajā valstī.
- ES atbalsta galējā labuma guvējas ir Valstis, bet Kopuzņēmums ir ES atbalsta saņēmējs;
- dzelzceļa infrastruktūras īpašnieks Igaunijā, Latvijā un Lietuvā ir attiecīgā valsts, kuras teritorijā šī infrastruktūra atrodas.

2. Primārais Kopuzņēmuma uzdevums ir kopīga Baltijas valstu EISI pieteikuma sagatavošana un iesniegšana. Atbilstoši šim mērķim Kopuzņēmumam jāizveido profesionāla komanda un efektīva struktūra, jāgatavo biznesa plāns, jānodrošina Rail Baltica 2 projekta vadība, jāorganizē iepirkumi, finansējuma plānošana, u.c. uzdevumi.

Papildus Baltijas valstis strādā pie starpvaldību līguma projekta, kas regulēs valstu savstarpējās attiecības, pienākumus un uzdevumus Rail Baltica projekta realizēšanā.

3. Atbilstoši 2011. gada veiktajai angļu kompānijas AECOM izpētei trīs Baltijas valstīs ir izdevīgi īstenot šo projektu. Veiktās Izmaksu un ieguvumu analīzes rezultāti, rāda, ka šis projekts kopumā ir uzskatāms par izdevīgu. Turklāt finanšu analīze liecina, ka šim projektam ir pozitīva kumulatīvā naudas plūsma visos gados, un tāpēc šajā līmenī tas ir uzskatāms par finansiāli stabilu. Investīciju finanšu rādītāji, bez ES finansējuma, uzrāda negatīvus rezultātus, tā uzsverot, cik svarīgi ir nodrošināt ES finansējumu.

Skaitļi arī apliecina, ka caurmērā ekspluatācijas posmā nebūs nepieciešamas subsīdijas, taču, lai palīdzētu stimulēt sākotnējo pieprasījumu, jo īpaši kravas pārvadājumu jomā, subsīdijas varētu būt nepieciešamas ekspluatācijas sākumposmā.

AECOM veiktais Ekonomiskā izdevīguma novērtējums¹

Ietekme uz ekonomiku (miljones eiro)	„Rail Baltica” kopā		„Rail Baltica” Igaunijā		„Rail Baltica” Latvijā		„Rail Baltica” Lietuvā	
	Diskontētās izmaksas vai ieguvumi	Īpatnām kopējās izmaksas/ieguvumos	Diskontētās izmaksas vai ieguvumi	Diskontētās izmaksas vai ieguvumi (uz sliežu ceļa km)	Diskontētās izmaksas vai ieguvumi	Diskontētās izmaksas vai ieguvumi (uz sliežu ceļa km)	Diskontētās izmaksas vai ieguvumi	Diskontētās izmaksas vai ieguvumi (uz sliežu ceļa km)
Infrastruktūras pārvaldnieka/ valsts izmaksas								
Investīciju izmaksas	1886	103 %	565	2,47	648	2,76	674	2,55
Atlikusī vērtība	-117	-6 %	-34	-0,15	-43	-0,18	-41	-0,16
Uzturēšanas izmaksas	61	3 %	19	0,08	20	0,08	22	0,08
Pārvaldnieka ieguvumi								
Infrastruktūras lietošanas maksas	521	16 %	108	0,47	111	0,47	125	0,47
Pasažieri	170		35	0,15	36	0,15	41	0,15
Krava	351		73	0,32	75	0,32	84	0,32
Pārvadātāja ieguvumi								
Pasažieru pārvadātājs								
Ekspluatācijas izmaksas (tostarp dzelzceļa izmantošanas maksas)	-372	-12 %	-77	-0,34	-79	-0,34	-89	-0,34
Ienākumi	605	19 %	129	0,56	160	0,68	215	0,81
Kravas pārvadātājs								
Ekspluatācijas izmaksas (tostarp dzelzceļa izmantošanas maksas)	-685	-21 %	-142	-0,62	-146	-0,62	-164	-0,62
Ienākumi	1142	36 %	353	1,54	339	1,44	322	1,22
Lietotāju ieguvumi								
Ietaupītā laika vērtība	1158	36 %	397	1,73	340	1,45	284	1,08
Pasažieri	340		135	0,59	88	0,38	71	0,27
Krava	818		262	1,14	252	1,07	213	0,81
Arējas ietekmes								

¹ AECOM ziņojuma kopsavilkums pieejams interneta vietnē:

http://www.sam.gov.lv/images/modules/items/PDF/item_3187_Rail_Baltica_Final_Report_Executive_Summary_31_05_11_FINAL_v2_LV.pdf.

Drošība (avārijas)	338 11 %	116 0,51	105 0,44	89 0,34
Gaisa piesārņojums	148 5 %	35 0,15	29 0,13	77 0,29
Klimata pārmaiņas	342 11 %	117 0,51	108 0,48	85 0,32
Kopējās izmaksas	1829	550 2,41	625 2,66	654 2,48
Kopšie ieguvumi	3198	1034 4,52	967 4,11	944 3,58
Neto pašreizējā vērtība (NPV)	1368	484	342	289
EIRR	9,3 %	9,7 %	8,4 %	7,9 %
Ieguvumu un izmaksu attiecība	1,75	1,88	1,55	1,44

Papildus veiktajai AECOM izpētei šobrīd notiek detalizēta tehniskā izpēte, ko veic atklātā iepirkuma procedūrā izvēlēta pilnsabiedrība „RB Latvija”, kuras ietvaros tiek analizēti arī Rail Baltica projekta īstenošanas sociālekonomiskie ieguvumi un paredzēta arī pilna Izmaksu un ieguvumu analīze jaunbūvējamajai dzelzceļa līnijai. Galvenajam dzelzceļa līnijas novietojuma variantam tiks sagatavots detalizēts projekta izmaksu – ieguvumu analīzes aprēķinu modelis un veikta pilna izmaksu – ieguvumu analīze, tajā skaitā aprēķināts nepieciešamais ES finanšu instrumentu līdzfinansējums, sadalot projektu tehniski un ekonomiski nodalāmos realizācijas posmos pa atsevišķiem periodiem: no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada; tiks sagatavots detalizēts projekta vadības un projekta īstenošanas plāns, tajā skaitā darbu, laika un naudas plūsmas grafiks. Izpētes rezultāti būs pieejami 2015.gada beigās.

4. AS „RB Rail” ir reģistrēts Latvijā un tādejādi tā korporatīvā pārvaldība notiek atbilstoši Latvijas republikas normatīvajiem aktiem. Savukārt AS „RB Rail” Latvijas akcionārs ir 100% valstij piederoša kapitālsabiedrība, kuras pārvaldību īsteno Satiksmes ministrija atbilstoši likumam „Par valsts un pašvaldību kapitāla daļām un kapitālsabiedrībām.”

Akcionāru līgums skaidri nosaka, ka nevienam Akcionāram un nevienai Valstij, uzsākot Rail Baltica projektu, nav jāgarantē finansiālas saistības attiecībā uz pilnīgu Projekta pabeigšanu, ja šāds finansējums nav paredzēts attiecīgās Valsts budžeta apropriācijā vai investīciju plānā. Akcionāru līgums paredz konkrētus noteikumus attiecībā uz veicamo finanšu investīciju apjomiem, kā arī ietver regulējumu attiecībā uz paredzamo finanšu investīciju un citu finansējuma avotu piesaistes plānošanu, kā arī jebkuru turpmāko finanšu saistību papildus apstiprināšanu Valdē, Padomē un Akcionāru sapulcē.

Kopuzņēmuma akcionāru līgums paredz arī noteikumus attiecībā uz rīcības plānu, ko izstrādā Valde un apstiprina Padome. Rīcības plānā paredzēts atspoguļot arī prognozes par iespējamiem aizņēmumiem un citām finansiālām saistībām, nodrošinot to, ka finansiālās saistības tiek plānveidīgi prognozētas. Akcionāru līgums paredz, ka tiks atsevišķi izstrādāts 10 gadu

biznesa plāns, kas tiks pārskatīts katrā finanšu gadā, un tas ietvers detalizētu aprakstu par projekta īstenošanas aktivitātēm konkrētā projekta gadā attiecībā uz Lietuvas dzelzceļa daļu, Latvijas dzelzceļa daļu un Igaunijas dzelzceļa daļu un finansēšanas avotiem un izmantošanu, tai skaitā visu plānoto ES finansējumu, trešo personu finansējums no kredītiestādēm un valstu veiktajām iemaksām attiecībā uz Lietuvas dzelzceļa daļu, Latvijas dzelzceļa daļu un Igaunijas dzelzceļa daļu.

Kopumā visi ar Kopuzņēmuma dibināšanu, pārvaldi, tā darbību vai darbības izbeigšanu, ieguldījumu veikšanu, kontroli pār aktīviem u.c. saistītie būtiskie lēmumi ir pakļauti vienbalsīgam akcionāru apstiprinājumam vai vienbalsīgam Padomes lēmumam.

5. Atbilstoši iepriekš panāktajām vienošanām par ES budžetu, EISI ietvaros valstīm, kas ir tiesīgas saņemt finansējumu no Kohēzijas fonda, ir piešķirti garantētie līdzekļi 11,3 miljardu apmērā. Latvijai, kā dalībvalstij, kas tiesīga saņemt finansējumu no Kohēzijas fonda, garantētā pieejamā aploksne investīciju periodā 2014. – 2020. gadam, ir 240 milj. euro, kas ir Kohēzijas fonda līdzekļi. Līdz 2016. gada beigām ir paredzama projektu pieteikumu iesniegšana šim finansējumam. Maksimālā ES līdzfinansēšanas likme dalībvalstīm, kas tiesīga saņemt finansējumu no Kohēzijas fonda ir 85%. Pēc minētā termiņa (2016. gada beigas) valstu neizmantojie finanšu līdzekļi tiks pārvirzīti kopējai izmantošanai uz konkurences pamata starp tām dalībvalstīm, kurām ir piemērojama Kohēzijas fonda līdzfinansēto projektu nosacījumi. Projekta apstiprināšanas gadījumā būs jāņem vērā līdzfinansēšanas princips, proti, nacionālais līdzfinansējums ir obligāts ES finansējuma daļas saņemšanas priekšnosacījums. Gadījumā, ja finansējuma saņemšanai būs nepieciešamas valsts garantijas, to saņemšanas process tiks virzīts saskaņā ar normatīvo aktu prasībām. Atkarībā no sliežu ceļa garuma, zemes pieejamības, izvēlētajiem tehniskajiem risinājumiem u.c. aspektiem katras valsts izmaksas var atšķirties, jo katra valsts nodrošinās to finansējumu, kas nepieciešams darbiem tās teritorijā.

Nepieciešamības gadījumā tiks vērtētas iespējas, nepieciešamība un lietderība papildus piesaistīt arī citus EISI regulā paredzētos finanšu instrumentus projekta finansēšanai. Saskaņā ar EISI regulu² var tikt izmantoti šādi finanšu instrumenti (10% no kopējā EISI finansējuma):

² Kā arī saskaņā ar Eiropas Komisijas (EK) prezidenta Ž.K.Junkera politisko vadlīniju dokumentu "Jauns sākums Eiropai – Mans darba plāns darba vietu, izaugsmes, taisnīguma un demokrātisko pārmaiņu radīšanai" (A new Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change), 300 mljrd EUR investīciju stimulēšanas iniciatīvai Eiropas Savienības (ES) dalībvalstīm, kas paredz plašāk izmantot privāto finansējumu investīciju projektiem tautsaimniecībā ar Eiropas Investīciju bankas (EIB) aktīvāku iesaisti līdzfinansēšanā un EUR 300 mljrd. mobilizēšanā laika periodam no 2015. – 2017.gadam

- kapitāla instrumenti, piemēram, ieguldījumu fondi, kas orientējas uz riska kapitāla nodrošināšanu darbībām, kas sekmē kopīgu interešu projektus;
- aizdevumi un/vai garantijas, ko realizē ar riska dalīšanas instrumentiem, tostarp projektu obligāciju kredītkvalitātes uzlabošanas mehānismu, atbalstot atsevišķus projektus vai projektu portfeļus, kurus emitē finanšu iestāde no saviem līdzekļiem, bet kam Savienība paredz piešķirumu uzkrājumiem un/vai kapitāla sadalei.

Ņemot vērā projekta fāzes Kopuzņēmums sagatavo Biznesa plānu 10 gadiem, sākot ar nākamo gadu, kas katru Finanšu gadu tiek pārskatīts. Biznesa plānā tiks izklāstīts detalizēts Projekta īstenošanas darbību apraksts attiecīgajam Projekta gadam atsevišķi attiecībā uz katru daļu – Dzelzceļa Lietuvas daļu, Dzelzceļa Latvijas daļu un Dzelzceļa Igaunijas daļu un Projekta īstenošanai paredzētā finansējuma avotiem un tā izlietojumu, ieskaitot jebkādu plānoto ES finansējumu un trešās puses finansējumu no institucionālām ilgtermiņa projektu kredītiestādēm (piemēram, ERAB, EIB, NIB u.c.). Biznesa plāns ietvers Kopuzņēmuma kapitālizdevumu prognozes, ieguvumu izdevumu analīzi, kā arī konsolidēto ieņēmumu, darbības izmaksu un naudas plūsmas aplēses (tajā skaitā detalizēta informācija attiecībā uz Dzelzceļa Lietuvas daļu, Dzelzceļa Latvijas daļu un Dzelzceļa Igaunijas daļu).

6. Saskaņā ar Akcionāru līgumu Kopuzņēmums atbilstoši korporatīvai struktūrai sagatavos Biznesa plānu un finanšu plānu Rail Baltica projektēšanai un būvniecībai, savukārt gala lēmumu par projekta līdzfinansēšanu no valsts līdzekļiem, izvērtējot sagatavotos datus pieņems katra valsts saskaņā ar normatīvajos aktos noteikto kārtību un starpvaldību līguma nosacījumiem.

7. Vienošanās vai lēmuma par konkrētiem tarifiem šobrīd nav, bet viens no AS „RB Rail” uzdevumiem ir sagatavot un piedāvāt labāko risinājumu tarifu noteikšanai.

8. Baltijas valstis ir vienojušās par vienotu transporta koridoru, dzelzceļa līnijas izbūvei, kas atbilst šādiem parametriem:

- nodrošina ātrāku satiksmi (īsākā un taisnākā trase), piesaistot vislielāko kravu un pasažieru daudzumu, kā arī dod vislielākos ienākumus;
- nepieciešams mazāk zemju, kas atrodas pieejamākās (mazāk izmantotās) teritorijās;
- mazāk aizskar aizsargājamās dabas teritorijas.

AECOM izpētes rezultāts parādīja, ka jaunas 1435mm sliežu platuma līnijas būvniecība, kas savienotu Igauniju, Latviju un Lietuvu ar Poliju un pārējām Eiropas valstīm ir sociālekonomiski pamatota. Izpētes rezultātā tika

noteikts iespējamais dzelzceļa līnijas novietojuma koridors, un tas savieno Tallinu, Rīgu un Kauņu pa īsāko un ātrāko maršrutu.³

Lai noteiktu dzelzceļa līnijas novietojumu tādā detalizācijas pakāpēm, kas nepieciešama būvprojektēšanai šobrīd Latvijā notiek alternatīvo variantu detalizēta izpēte un tiek uzsākts Ietekmes uz vidi novērtējuma procedūra atbilstoši likuma Par ietekmes uz vidi novērtējumu prasībām. Plānots, ka paredzētās darbības akcepts tik saņemts 2015.gada beigās.

9. Latvijas pozīcija ir saglabāt šobrīd panāktās vienošanās par robežu šķērsošanas punktiem un trases galvenajiem tehniskajiem parametriem, kā arī turpināt izpēti par trases novietojumu atbilstoši likuma par ietekmes uz vidi novērtējumu prasībām.

10. Plānots, ka paredzētās darbības akcepts detalizētam dzelzceļa līnijas variantam atbilstoši likuma par ietekmes uz vidi novērtējumu prasībām tik saņemts 2015.gada decembrī.

11. Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums tiek veikti Eiropas transporta tīkla (TEN-T) līdzfinansēta projekta „Pētījumi par Eiropas platuma sliežu ceļa līniju (Latvijas posms)”, projekta Nr.2007-LV-27050-S, ietvaros. Projektam piešķirts finansējums ar EK 2008.gada 11.decembra lēmumu C(2008) 7978 „Lēmums par finansiālā atbalsta piešķiršanu pasākumam 11.12.2008, kas attiecas uz Kopienas finansiālā atbalsta piešķiršanu vispārējas intereses projektiem „Pētījumi par Eiropas platuma sliežu ceļa līniju (Latvijas posms)” - 2007-LV-27050-S – Eiropas transporta tīklu (TEN-T) jomā”.

Projektu “Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums ID Nr. SAM 2012/12 TEN-T” izpilda pilnsabiedrība “RB Latvija”, kura uzvarēja ministrijas rīkotajā atklātajā konkursā ar saimnieciski izdevīgo piedāvājumu, līgumcena 3 993 000,00 EUR.

Detalizētās tehniskās izpētes mērķis ir noteikt precīzu plānotās dzelzceļa līnijas Rail Baltica novietojumu LR teritorijā, tajā skaitā savienojumus ar ostu un lidostu, un veikt nepieciešamās izpētes un priekšdarbus dzelzceļa līnijas būvprojektēšanas, zemju atsavināšanas un būvniecības procesu uzsākšanai līdz 2020. gadam.

Detalizētās tehniskās izpētes rezultātā tiks:

³ AECOM ziņojuma kopsavilkums pieejams interneta vietnē:

http://www.sam.gov.lv/images/modules/items/PDF/item_3187_Rail_Baltica_Final_Report_Executive_Summary_31_05_11_FINAL_v2_LV.pdf

- Sagatavoti tehniskie risinājumi plānotās dzelzceļa līnijas Rail Baltica tehniski, ekonomiski un juridiski iespējamajiem novietojuma variantiem;
- Veiktas tehnisko risinājumu un detalizēto tehnisko risinājumu pamatošanai nepieciešamās inženierizpētes;
- Veikts ietekmes uz vidi novērtējums atbilstoši normatīvajos aktos noteiktajam;
- Administratīvajās teritorijās (pašvaldībās), tur, kur nepieciešams veikt grozījumus pašvaldību teritoriju plānojumos, izstrādāts jaunās dzelzceļa līnijas lokālpārplānojums un veikts lokālpārplānojuma stratēģiskais ietekmes uz vidi novērtējums, ja tāds nepieciešams;
- Izraudzīts precīzs un no visiem aspektiem pamatots jaunās dzelzceļa līnijas novietojuma variants (galvenais dzelzceļa līnijas trases novietojuma variants);
- Galvenajam dzelzceļa līnijas trases novietojuma variantam izstrādāti detalizēti tehniskie risinājumi un sagatavota nepieciešamā tehniskā dokumentācija, lai uzsāktu nākamo projekta etapu – būvprojektēšanu un būvniecību atbilstoši Būvniecības likumam un saistošajiem normatīvajiem aktiem;
- Galvenajam dzelzceļa līnijas trases novietojuma variantam sagatavotas rekomendācijas zemju atsavināšanai un Pasūtītāja rīcībai attiecībā uz vietējo pašvaldību teritorijas attīstības plānošanas dokumentiem;
- Sagatavotas tehniskās specifikācijas un Pasūtītāja prasības iepirkumiem būvprojektēšanai, būvniecībai un saistītajiem procesiem, tajā skaitā projektēšanas uzdevums;
- Veikta projekta pilna izmaksu – ieguvumu analīze, tajā skaitā Visiem apstiprinātajiem dzelzceļa līnijas novietojuma variantiem un apakšvariantiem, nosakot papildus izmaksas, ieņēmumus, sociālekonomiskos ieguvumus un zaudējumus salīdzinājumā ar Pamatvariantu, balstoties uz iepriekšējās izpētes rezultātiem;
- Galvenajam dzelzceļa līnijas novietojuma variantam sagatavots detalizēts projekta izmaksu – ieguvumu analīzes aprēķinu modelis un veikta pilna izmaksu – ieguvumu analīze, tajā skaitā aprēķināts nepieciešamais ES finanšu instrumentu līdzfinansējums, sadalot projektu tehniski un ekonomiski nodalāmos realizācijas posmos pa atsevišķiem periodiem: no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada; Sagatavots detalizēts projekta vadības un projekta īstenošanas plāns, tajā skaitā darbu, laika un naudas plūsmas grafiks;
- Projekts strukturēts atsevišķos tehniski un ekonomiski nodalāmos būvprojektos, kurus var īstenot iespēju robežās autonomi, tādējādi nodrošinot loģisku būvniecības posmu secību projekta ietvaros, t.sk.

noteikti būvobjekti, ar kuriem sākt būvdarbus, sadalot laika periodos no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada.

Trašu alternatīvu izvēle, saskaņā ar PS "RB Latvija" piedāvāto metodiku notika 3 posmos: (a) visi identificētie trašu varianti (aprīlis-maijs, 2014), (b) iespējamo trašu variantu daudzkritēriju analīze (8 ievadi Rīgā un 3 pamattrases alternatīvas, jūnijs – oktobris, 2014), (c) IVN procesā apskatāmo variantu izvēle (ievadiem Rīgā un pamattrasei, novembris-decembris, 2014).

Sākotnēji tika identificēti visas iespējamās alternatīvas pamatlīnijai (kuras pamatā bija AECOM pētījumā noteiktā līnija, ar saskaņotiem robežas šķērsojuma punktiem ar Igauniju (pie Ainažiem) un Lietuvu (pie Grenctāles), kā arī visi iespējamie ievadi līnijai Rīgā, kas savieno Rīgas pasažieru staciju, starptautisko lidostu "Rīga" un Rīgas brīvostas teritorijas, Daugavas labajā un kreisajā krastā.

Tika noteikti šādi galvenie kritēriji pamatlīnijas trases novietojuma alternatīvu izstrādei:

- Pēc iespējas izvairīties no NATURA 2000 teritorijām. Ja nav iespējams izvairīties no NATURA 2000 šķērsošanas, pēc iespējas šķērsot to kopējā koridorā ar esošu līnijbūvi;
- Radīt mazāk apgrūtinājumu nekustamiem īpašumiem, pēc iespējas apvienojot līnijveida koridorus (autoceļš, dzelzceļš, inženierkomunikācijas, tostarp Trešā Igaunijas - Latvijas elektropārvades tīkla starpsavienojuma infrastruktūras koridora varianti);
- Pēc iespējas apiet apdzīvotās vietas, kur būvniecības procesu sadārdzina blīvi apdzīvotas vietas nekustamo īpašumu, ielu un inženierkomunikāciju struktūra;
- Iespēju robežās ņemt vērā pašvaldību intereses – teritoriju plānojumos noteiktās transporta infrastruktūras koridorus, potenciālos atzarus uz pilsētām, kas varētu tikt attīstīti nākamajās Rail Baltica kārtās;
- Pēc iespējas nebojāt kultūras pieminekļus un nešķērsot kultūras pieminekļu teritorijas;
- Izvēlēties dzelzceļa koridoru, kas atstāj mazāku ietekmi uz autoceļu infrastruktūru un sabiedriskā transporta kustību;
- Pēc iespējas neveikt vienlaidus lauksaimniecības un meža īpašumu fragmentāciju;

Turpmākajā procesā, saskaņā ar darba uzdevumu tika atlasīti 8 varianti ievadiem Rīgā un 3 varianti (un to apakšvarianti) pamatlīnijai, kuriem tika veikta daudzkritēriju analīze (turpmāk - DKA). DKA mērķis ir aptvert pēc iespējas plašāku faktoru diapazonu, kam ir ietekme uz dažādām Rail Baltica pamattrases un ievadu Rīgā alternatīvām. Turklāt būtiski ir šos faktorus vērtēt

atbilstoši vairāku iesaistīto pušu interesēm, kas visbiežāk ir atšķirīgas. Visaptveroša dažādu iesaistīto pušu interešu apzināšana ļaus pilnvērtīgi novērtēt un atrast divus optimālākos pamatrrases un divus ievadu Rīgā variantus.

Šīs DKA analīzes ietvaros, vērtējot dažādas pamatrrases un ievadu Rīgā alternatīvas, tiks analizētas šādas četras svarīgas iesaistītās puses:

- lietotāji;
- infrastruktūras pārvaldītājs;
- vide un sabiedrība;
- valsts un pašvaldības.

Ar lietotājiem tiek saprasti pasažieri un kravu pārvadātāji. Pasažieri ir primārie dzelzceļa līnijas izmantotāji, kas to lieto pārvietošanās nolūkos. Savukrāt kravu pārvadātāju interese ir kravu nogādāšanā. Pasažieru, kā arī kravu pārvadātāju pamata interese, vērtējot dažādas pamatrrases alternatīvas, ir patērēt pēc iespējas mazāk laika ceļā.

Infrastruktūras pārvaldītājs ir plānotais Igaunijas, Latvijas un Lietuvas kopuzņēmums, kas būs atbildīgs par infrastruktūras izveidi, kā arī tās turpmāku ekspluatāciju. Infrastruktūras pārvaldītāja pamata interese ir pēc iespējas mazākas investīciju uz uzturēšanas izmaksas.

Ar vidi un sabiedrību tiek saprastas dzelzceļa infrastruktūras ietekmes zonā esošās teritorijas, iedzīvotāji, resursi, dzīvnieki u.c., kas dzelzceļa infrastruktūras izveides rezultātā tiek tieši vai netieši negatīvi ietekmēti. Jo mazāk negatīvi tiek ietekmētas ap dzelzceļa infrastruktūru apkārt esošās teritorijas, jo apmierinātāka ir sabiedrība un mazāk negatīvi ietekmēta vide.

Ar valsti un pašvaldībām tiek saprasta visas sabiedrības interešu nodrošināšana kopumā, realizējot projektu un sniedzot pēc iespējas lielāku pievienoto vērtību no projekta īstenošanas viedokļa. Alternatīva, kas nodrošinās lielāku ekonomisko potenciālu, ilgtspējību un integrāciju, kā arī ietvers mazāk risku projekta realizācijai būs optimālā no valsts un pašvaldību perspektīvas.

Katras dimensijas iespējamās alternatīvas tiks sarindotas pēc to pārākuma attiecībā pret AECOM piedāvāto pamatvariantu, bet savā starpā dimensijas pēc to būtiskuma jeb svara sarindotas netiks, jo tas ietvertu lielu subjektivitāti. Līdz ar to divi optimālākie pamatrrases un ievadu Rīgā varianti tiks noteikti pēc dimensiju savstarpēja kvalitatīva novērtējuma par pamatu ņemot katras dimensijas ietvaros atlasīto labāko variantu. DKA procesa ietvaros tika apkopota informācija un iegūti dati no dažādām datu bāzēm (tai skaitā LGIA, VZD, LVM, Latvenergo, VMD, DAP, vietējās pašvaldības,

u.c.). Tika organizētas tikšanās ar pašvaldībām un valsts institūcijām, iegūstot papildus viedokļus un kvalitatīvo informāciju.

Vienlaikus informēju, ka saskaņā ar iepriekš ieplānotu darba vizīti ārpus Rīgas, 2014.gada 20.novembrī satiksmes ministrs A.Matīss mutvārdu atbildes sniegšanā uz Saeimas deputātu jautājumiem „Par „Rail Baltica” projekta īstenošanu” nevarēs piedalīties.

Satiksmes ministra vietā –
Iekšlietu ministrs



R.Kozlovskis



LATVIJAS REPUBLIKAS EKONOMIKAS MINISTRIJA

Brīvības ielā 55, Rīga, LV-1519, Latvija ♦ tālr. 67013100 ♦ fakss 67280882 ♦ e-pasts: pasts@em.gov.lv

R ī g ā

24.11.2014. Nr. 1-1-15116
Uz 13.11.2014. vēstuli Nr.221.8/1-2-12/14

STEIDZAMI

Latvijas Republikas Saeimas kancelejai

*Par Saeimas deputātu 2014.gada 13.novembra
jautājumu „Par valstij piederošo Citadeles akciju
patiesajiem ieguvējiem” (jautājuma reģistra
Nr.2/J12)*

Saskaņā ar Saeimas kārtības rullja 121.panta pirmās daļas 1.punktu, ekonomikas ministre sniedz atbildi uz Latvijas Republikas Saeimas deputātu jautājumu „Par valstij piederošo Citadeles akciju patiesajiem ieguvējiem” (jautājuma reģistra Nr.2/J12).

Jautājums. Lūdzam informēt par akciju sabiedrības „Citadele banka” akcionāru sastāvu, kāds tas ir paredzēts pēc līguma noslēgšanas – lūdzam sniegt konkrētu un izsmejošu informāciju par visiem bankas akcionāriem un katram no tiem piederošo akciju skaitu, norādot katram akcionāram piederošo akciju kategorijas un no tām izrietošās tiesības, savukārt, ja ir paredzēti jebkādi akciju īpašumtiesību vai akciju lietošanas nosacījumi (noteiktas jebkādas īpašas tiesības vai privilēģijas, vai arī noteikti kādi ierobežojumi), detalizēti norādīt šos nosacījumus, norādīt uz kuriem akcionāriem tas attiecināms, uz kādu konkrētam akcionāram piederošo akciju skaitu tas ir attiecināms u.tml.

Atbilde:

Informējam, ka 2014.gada 5.novembrī tika parakstīts akciju sabiedrības „Citadele banka” (turpmāk – Citadele banka) akciju pirkuma līgums starp valsts akciju sabiedrību „Privatizācijas aģentūra” (turpmāk – Privatizācijas aģentūra), divpadsmit starptautisku investoru grupu un Ripplewood Advisors L.L.C. Privatizācijas aģentūra ir norādījusi, ka Citadele bankas akciju pirkuma līgumā ir ietverti konfidencialitātes nosacījumi, kas paredz publiski sniegt tikai tādu akciju pirkuma līgumā ietvertu informāciju (tajā skaitā par darījuma būtiskākiem nosacījumiem), ko saskaņojušas abas līguma pušes, t.i., investori un Privatizācijas aģentūra. Ar investoru saskaņotais publiskojamais informācijas



saturs un apjoms paredz izplatīt informāciju par patiesajiem labuma guvējiem Citadele bankas akciju pārdošanas darījumā, kā arī publiskot informāciju, ka pēc darījuma noslēgšanas Ripplewood Advisors LLC piederēs 22,4% akciju, bet pārējiem investoriem kopā 52,6% bankas akciju. Līdz ar to nav publiskojama informācija par katram investoram piederošo akciju procentuālo skaitu. Vienlaikus jāuzsver, ka netiks pārsniegts 9,99% akciju īpatsvars katram no šiem investoriem. Eiropas Rekonstrukcijas un attīstības banka (turpmāk – ERAB) savā īpašumā saglabās 25% Citadele bankas akciju. Visas Citadeles bankas akcijas ir vārda akcijas ar balsstiesībām. Darījums noslēgsies 2015.gada 1.ceturksnī pēc uzraudzības iestāžu apstiprinājuma saņemšanas, turklāt darījuma nosacījumi paredz, ka investori un ERAB palielinās bankas kapitālu par 10 miljoniem eiro, kas var nebūtiski ietekmēt akciju procentuālo sadalījumu starp investoriem darījuma noslēgumā.

Ripplewood Advisors L.L.C. dibinātājs un izpilddirektors Tims Kolinss (Tim Collins) ir uzsvēris, ka investoriem ir ilgtermiņa plāni un tie ir pārliecināti, ka Citadele banka kļūs par vienu no nozares līderiem Latvijā un Baltijas reģionā, nodrošinot izcilu pakalpojumu kvalitāti un sniedzot jaunus pakalpojumus saviem klientiem.

Darījuma nosacījumi paredz visiem jaunajiem investoriem vienādus ierobežojumus attiecībā uz bankas akciju tālāku pārdošanu 24 mēnešu laikā no darījuma noslēguma. Investori apņemas nepārdot, nenodot un nerādīt apgrūtinājumus Citadele bankas akcijām. Akciju pirkuma līgumā ir noteikti konkrēti gadījumi, uz kuriem šie ierobežojumi neattiecas, piemēram, ja darījumi ar akcijām tiek veikti līdz 10% no kopējā akciju skaita; ja tiek veikts līdz 30% Citadele bankas akciju publiskais piedāvājums vai veikta papildus kapitāla piesaistīšana, nesasniedzot 25%; ja šādu pienākumu nosaka likums to pieprasa valsts iestādes vai banku uzraudzības iestādes u.c. Turklāt noslēgtais līgums paredz, ka investoriem, kuri ir noslēgtā akciju pirkuma līguma puse, vai minēto investoru „meitas” vai „mātes” sabiedrības, ir savstarpēji atļauts pārdot akcijas.

Investoru sniegtā informācija par Citadeles bankas akciju pircējiem (patiesiem labuma guvējiem):

Ripplewood Advisors L.L.C. un Tims Kolinss (Tim Collins): Ripplewood Advisors L.L.C. ir investīciju uzņēmums, kura galvenā mītne atrodas ASV. Pēdējo 20 gadu laikā Ripplewood Advisors L.L.C. ir veicis investīcijas un attīstījis uzņēmumus dažādās pasaules valstīs, tostarp Eiropā, Vidējos Austrumos un Āzijā. Ripplewood Advisors L.L.C. konsekventi pilnveido un attīsta iegādātos uzņēmumus, radot vērtību galvenajām interešu grupām un nodrošinot pēc iespējas lielāku atdevi investoriem. Tims Kolinss ir Ripplewood Advisors L.L.C. dibinātājs un izpilddirektors. Viņam ir vairāk nekā 25 gadu pieredze, veicot ieguldījumus un vairojot uzņēmumu vērtību visā pasaulē. Viņš ir bijis daudzu uzņēmumu padomju loceklis, tostarp "Citigroup" (pēc publisko līdzekļu piesaistīšanas), "Commercial International Bank" (Ēģipte), "Asbury Automotive Group Inc." un "Gogo Inc.".

Greiems T. Alisons (Graham T. Allison): Greiems T. Alisons ir centra "Belfer Center for Science and International Affairs" direktors un Hārvarda universitātes Džona F.Kenedija Valsts pārvaldes skolas profesors. Viņš ir mūsdienu Kenedija skolas dibinātājs dekāns. Greiems T.Alisons ir bijis aizsardzības sekretāra īpašais padomnieks prezidenta Reigana administrācijā un aizsardzības sekretāra vietnieks politikas un plānošanas jautājumos prezidenta Klintonas administrācijā. Alisons būs Citadeles bankas vecākais padomnieks.

Džeims L. Balsili (James L. Balsillie): Pašreiz ieņem Kanādas ilgtspējīgās attīstības tehnoloģijas padomes priekšsēdētāja amatu. "Research In Motion" (BlackBerry) līdzdibinātājs. 2011. gadā, kad viņš atstāja darbu RIM, uzņēmuma gada apgrozījums bija 20 miljardi ASV dolāru. Viņš pārstāvēja privāto sektoru ANO ģenerālsekretāra ilgtspējas konsultatīvajā padomē. Pēc uzraudzības iestāžu apstiprinājuma saņemšanas Balsili būs Citadeles bankas padomes loceklis.

Džeralds B. Kreimers (Gerald B. Cramer): "Cramer Rosenthal & McGlynn LLC" dibinātājs. Šis ir viens no vadošajiem ASV investīciju pārvaldības uzņēmumiem, kura darbība vērsta uz vērtības radīšanu un kas pārvalda institucionālo un privāto investoru aktīvus aptuveni 12 miljardu ASV dolāru vērtībā, izmantojot plašu investīciju stratēģiju klāstu. Pirms uzņēmuma dibināšanas 1973. gadā Kreimers strādāja uzņēmumā "Oppenheimer & Company, A.M." "Kidder & Company" un "Merrill Lynch".

Metjū O. Digs (Matthew O. Diggs): Metjū. O. Digs 13 gadus strādājis par "Copeland Corporation" prezidentu un izpilddirektoru. "Copeland" bija lielākais saldēšanas un gaisa kondicionēšanas kompresoru ražotājs pasaulē ar vadošu pozīciju Ziemeļamerikas un Eiropas tirgū un ievērojamu pārstāvību citās pasaules daļās. Digs ir bijis arī Ripplewood Advisors L.L.C. partneris industriālo investīciju jomā, palīdzot īstenot investīcijas ražošanā.

Danandžaja Dvivedi (Dhananjaya Dvivedi): Danandžaja "Jay" Dvivedi vadīja "Banking Infrastructure Group" un bija bankas "Šinsei" korporatīvais izpilddirektors no 2000. gada līdz 2010. gadam. Dvivedi bija svarīga loma bankas "Šinsei" IT platformas pārveidošanā, īstenojot "Šinsei" (un Ripplewood Advisors L.L.C.) stratēģiju, lai uzlabotu klientu apkalpošanu ar interneta bankas, diennakts ATM un reāllaika datu pakalpojumu palīdzību, vienlaicīgi ierobežojot izmaksas. Līdz 2005. gadam banka bija piesaistījusi 1,4 miljonus klientu, un mēnesī klientu bāze palielinājās par 35 tūkstošiem. Pirms darba "Šinsei" bankā Dvivedi bija pavadījis 26 gadus Citibank strādājot dažādos vadošos amatos, kas saistīti ar bankas infrastruktūras pārveidi Ziemeļāfrikā, Eiropā, Tuvajos Austrumos, Āzijā un Japānā. Turklāt Dvivedi ir palīdzējis Ripplewood Advisors L.L.C. pārorientēt "Commercial International Bank of Egypt" IT stratēģiju un personālu. Pēc uzraudzības iestāžu apstiprinājuma saņemšanas Dvivedi būs Citadeles padomes loceklis.

Edmonds Safra (Edmond Safra): Pārstāv "EMS Capital LP" – aktīvu pārvaldības uzņēmumu no Ņujorkas.

Nasefs Saviris (Nassef Sawiris): Pārstāv NNS Luxembourg – Luksemburgā bāzētu holdingkompāniju. Saviris ir uzņēmuma "OCI N.V." izpilddirektors un padomes loceklis. Šis Nīderlandes uzņēmums nodarbojas ar minerālmēslu un rūpniecisko ķīmikāliju ražošanu, izmantojot dabasgāzi, kā arī darbojas kā darbuzņēmējs inženiertehnisko darbu un būvniecības jomā. "OCI N.V." ir viens no pasaules vadošajiem darbuzņēmējiem, kā arī viens no lielākajiem slāpekļa minerālmēslu ražotājiem – tā ražošanas jaudas Nīderlandē, ASV, Ēģiptē un Alžīrā sasniedz gandrīz 7 miljonus metrisku tonnu. "OCI N.V." nodarbina aptuveni 55 000 cilvēku 35 valstīs un kotējas Euronext biržā Amsterdamā.

Stenlijs Šūmans (Stanley Shuman): Šūmans ir darbojies investīciju un investīciju konsultāciju jomās vairāk nekā 50 gadus. Šūmanam ir arī pieredze plašsaziņas līdzekļu nozarē, un viņš ir piedalījies vairāku pilsoniskās sabiedrības un bezpeļņas padomju darbā.

Džeimss E. Steilijs (James E. Staley): Džeimss "Jes" Steilijs ir vadošais partneris uzņēmumā "BlueMountain Capital", Pirms pievienošanās "BlueMountain" 2013. gadā Steilijs vairāk nekā 30 gadus strādāja "J.P. Morgan", ieņemot izpilddirektora amatu uzņēmumā "J.P. Morgan's Investment Bank", kā arī izpilddirektora amatu uzņēmumā "J.P. Morgan Asset Management". Steilija vadībā tika izvērstā "J.P. Morgan" darbība alternatīvo investīciju jomā, tostarp izveidojot stratēģisku partnerību ar "Highbridge Capital Management". Steilijs darbojas "Robin Hood Foundation" un "Code Advisors" direktoru padomē, kā arī Boudinas koledžas pilnvaroto padomē un Ņujorkas Federālo rezervju bankas finanšu tirgus konsultatīvajā komitejā.

"Baupost Group" (The Baupost Group): Ar Baupost Group LLC saistīts uzņēmums. Baupost Group LLC ir atvērta mandāta investīciju organizācija, kuras mērķis ir sasniegt augstus atdeves ilgtermiņa rādītājus. Uzņēmums pārvalda respektablu institucionālo un privāto investoru kapitālu.

Pols Volkers (Paul Volcker): Pols Volkers ir strādājis ASV valsts iestādēs gandrīz 30 gadus, tostarp bijis Valsts kases sekretāra vietnieks monetārajos jautājumos no 1968. gada līdz 1972. gadam, kā arī divus termiņus bijis ASV Federālo rezervju sistēmas priekšsēdētājs laikā no 1979. gada līdz 1987. gadam. Viņš ir arī bijis Starptautisko grāmatvedības standartu komitejas pilnvarnieku padomes priekšsēdētājs, investīciju bankas "Wolfensohn & Co." padomes priekšsēdētājs un prezidenta Baraka Obamas administrācijā pildījis Ekonomikas atveseļošanas konsultatīvās padomes priekšsēdētāja pienākumus. Laikā, kad šajās institūcijās bija Ripplewood Advisors L.L.C. investīcijas Volkers ir bijis īpašais padomnieks Ēģiptes bankā "Commercial International Bank" un Japānas bankā "Šinsei". Volkers būs Citadeles bankas Vecākais padomnieks.

Džeims D. Volfensons (James D. Wolfensohn): Pašlaik viņš ir "Wolfensohn Fund Management" un "Wolfensohn & Company, LLC" priekšsēdētājs. No 1995. gadam līdz 2005. gadam Volfensons bija Pasaules

bankas prezidents. Šai laikā Volfensons bija arī Starptautiskās finanšu korporācijas prezidents. Pirms darba Pasaules bankā Volfensons ilgu laiku bija starptautisko investīciju bankieris tādos uzņēmumos kā "Darling & Co." Austrālijā, "Schroders" Londonā un "Salomon Brothers" Ņujorkā. Volfensons būs Citadele bankas vecākais padomnieks.

Vienlaikus vēlos vērst Jūsu uzmanību, ka esmu lūgusi Privatizācijas aģentūrai līdz šā gada 25.novembrim sniegt priekšlikumus, lai nodrošinātu lielāku Citadele bankas akciju pārdošanas procesa publiskumu.

Ministre



D.Reizniece-Ozola



LATVIJAS REPUBLIKAS EKONOMIKAS MINISTRIJA

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R ī g ā

05.12.2014, Nr. 1-1-15656

Uz 26.11.2014. vēstuli Nr.221.8/1-5-12/14

STEIDZAMI

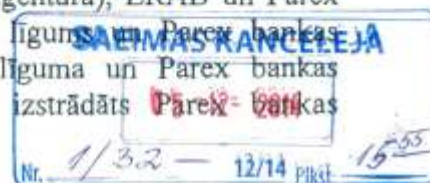
Latvijas Republikas
Saeimas kancelejai

*Par Saeimas deputātu 2014.gada
26.novembra jautājumu (jautājuma reģistra
Nr.5/J12)*

Saskaņā ar Saeimas kārtības ruļļa 121.pantu Ministru prezidenta uzdevumā sniedzu atbildi uz Latvijas Republikas Saeimas deputātu jautājumu „Par iespējamo opcijas līguma noslēgšanu starp Latvijas valdību un Eiropas Rekonstrukcijas un attīstības banku (turpmāk – ERAB) par ERAB piederošo akciju sabiedrības „Citadele banka” un akciju sabiedrības „Reverta” akciju pārdošanu Latvijas valdībai” (jautājuma reģistra Nr.5/J12).

1.jautājums. Vai Privatizācijas aģentūra pirms dažiem gadiem, (iespējams, 2009.gadā) bija noslēgusi ar ERAB tādu opcijas līgumu (vai līguma pielikumu) sakarā ar akciju sabiedrības „Citadele banka” un akciju sabiedrības „Reverta” izveidošanos, kurš saista Latvijas valsti ar nepieciešamību izpirkt ERAB piederošās akciju sabiedrības „Citadele banka” akcijas un/vai akciju sabiedrības „Reverta” akcijas?

Atbilde: Sarunas ar ERAB par tās iespējamo iesaisti akciju sabiedrības „Parex banka” (turpmāk – Parex banka) pamatkapitālā tika uzsāktas jau 2008.gada 24.novembrī. ERAB kā starptautiski pazīstamam investoram ir liela pieredze banku restrukturizēšanā, un tā iesaiste sniedza pozitīvu signālu bankas klientiem un noguldītājiem attiecībā uz bankas dzīvotspēju un attīstības potenciālu. Ņemot vērā ERAB pieredzi restrukturizācijas jomā un labu reputāciju finanšu nozarē, valdība aicināja ERAB kļūt par Parex bankas akcionāru. 2009.gada 16.aprīlī starp Latvijas Republiku, valsts akciju sabiedrību „Privatizācijas aģentūra” (turpmāk – Privatizācijas aģentūra), ERAB un Parex banku tika noslēgts Parex bankas akciju pirkuma līgums. Parex bankas akciju pirkuma līguma un Parex bankas akcionāru līguma parakstīšanas brīdī vēl nebija izstrādāts Parex bankas



restrukturizācijas plāns, kas paredzētu izveidot akciju sabiedrību „Citadele banka” (turpmāk – Citadele banka). Ņemot vērā Citadele bankas dibināšanu 2010.gada jūnijā, tika attiecīgi parakstīti jauni līgumi, kā arī pārjaunoti esošie līgumi. Līgumi tika aktualizēti arī 2012.gadā.

Iesaistoties Parex bankas krīzes risināšanā, ERAB izvirzītie nosacījumi bija ERAB kā mazākuma akcionāra tiesību aizsardzība, tai skaitā tiesības ERAB izbeigt līdzdalību bankas kapitālā, pārdodot savas akcijas Privatizācijas aģentūrai, kā arī veikto ieguldījumu garantija no valsts puses, ņemot vērā, ka ERAB, iegādājoties Parex akcijas, maksāja nevis to reālo tirgus vērtību, bet pēc akciju nomināla vērtības. 2009.gada 11.augustā finanšu ministrs parakstīja galvojuma līgumu ar ERAB par galvojuma izsniegšanu līdz 126,6 miljonu euro apmēram par Privatizācijas aģentūras saistībām pret ERAB, kas izriet no noslēgtajiem līgumiem. Informācija par minēto galvojumu ir publiski pieejama Valsts kases mājas lapā¹.

2.jautājums. Ja minētais opcijas līgums bija noslēgts, tad:

2.1. Kas bija iniciators opcijas līguma nosacījumu izstrādei?

2.2. Kādi ir opcijas līguma ar ERAB nosacījumi?

2.3. Pie kādiem nosacījumiem varētu notikt opcijas (pārdošanas iespējas) izmantošana?

2.4. Vai opcijas līguma nosacījuma iestāšanās priekšnosacījums ir akciju sabiedrības „Citadele banka” un/vai akciju sabiedrības „Reverta” pārdošana?

2.5. Vai pastāv kādi nosacījumi, kuru dēļ nebūtu nepieciešams iegādāties ERAB piederošās akcijas?

2.6. Kāda ir opcijas izpildes cena, t.i. fiksēta cena, par kuru ERAB ir tiesības pārdot Latvijai opcijas līgumā noteiktos aktīvus, jeb kāda ir summa, kas jāmaksā par akciju sabiedrības „Citadele banka” un/vai akciju sabiedrības „Reverta” akciju iegūšanu, ja tiek veikta opcijas izmantošana?

2.7. Cik ilgā laikā veicama samaksa?

2.8. Vai minētās saistības ir ietvertas 2015.gada valsts budžeta projektā?

Atbilde: Kā jau minēts iepriekš, ERAB, iesaistoties Parex bankas krīzes risināšanā, izvirzītie nosacījumi bija ERAB kā mazākuma akcionāra tiesību aizsardzība, tai skaitā tiesības ERAB izbeigt līdzdalību bankas kapitālā, pārdodot savas akcijas Privatizācijas aģentūrai, kā arī veikto ieguldījumu garantija no valsts puses. Akcionāru līgumā noteiktie nosacījumi ir konfidenciali un šo nosacījumu atklāšana bez pušu piekrišanas nav iespējama. Noteikto tiesību izmantošana ir saistīta ar Citadele bankas akciju pārdošanu investoram.

¹ http://www.kase.gov.lv/l/galvojumi/60?object_id=150

Privatizācijas aģentūra noslēdza līgumu par Citadele bankas 75% akciju pārdošanu divpadsmit starptautisku investoru grupai un "Ripplewood". Citadele bankas akciju pirkuma noslēgšana paredz virkni citu savstarpēji saistītu darījumu noslēgšanu. ERAB pēc Privatizācijas aģentūrai piederošo Citadele bankas akciju pārdošanas investoram savā īpašumā saglabās aptuveni 25% akciju. Citadele bankas investori, kas iegādājās 75% bankas akcijas, kā vienu no noteikumiem uzstādīja ERAB līdzdalības saglabāšanu bankā arī turpmāk. ERAB apmierināja Latvijas puses izvēlētais bankas investors un ERAB piekrita palikt par Citadele bankas akcionāru, vienlaikus vienojoties veikt attiecīgus norēķinus, samazinot esošās Privatizācijas aģentūras saistības. Papildus ERAB piekrita pārfinansēt Privatizācijas aģentūras izsniegto subordinēto aizdevumu Citadele bankai 11,2 miljonu euro apmērā, kā arī pagarināt šī subordinētā aizdevuma termiņu līdz 2020.gadam. Uz šo ieguldījumu valsts galvojums nav attiecināms, kas parāda ERAB nopietnos nolūkus attīstīt Citadele banku un stiprināt tās kapitāla bāzi.

Citadele bankas akciju pārdošanas darījumu un saistītos darījumus plānots noslēgt 2015. gada 1. ceturksnī, kad tiks saņemts atbilstošu uzraudzības iestāžu apstiprinājums. Lai pabeigtu Citadele bankas akciju pārdošanas darījumu un valsts budžetu atbrīvotu no saistībām, kas izriet no galvojuma līguma, ir jāizbeidz Privatizācijas aģentūras un ERAB noslēgtais Citadele bankas akcionāru līgums, kā arī nepieciešams restrukturizēt 2009.gadā uzņemtas saistības pret ERAB, tajā skaitā Privatizācijas aģentūrai jāveic noslēdzošais maksājums ERAB. Noslēdzošā maksājuma apmērs atbilst garantētajam ERAB ieguldījumu apmēram un maksai par kapitāla izmantošanu.

Šobrīd ERAB ieguldījums Citadele bankas un akciju sabiedrības „Reverta” (turpmāk - Reverta) pamatkapitālā kopā ir 93,0 miljonu euro un ERAB pieder 25%+1 Citadele bankas akcija un 12,74% Reverta akciju. Uz šiem ERAB ieguldījumiem, kā arī uz līguma pamata aprēķināto maksu par kapitāla izmantošanu ir attiecināmas tiesības ERAB pārdodot savas akcijas Privatizācijas aģentūrai. Aprēķinātais finanšu saistību apjoms, kas izriet no izsniegtajām garantijām, 2015.gada I ceturksnī varētu būt aptuveni 114,2 miljonu euro. Ņemot vērā Reverta akciju vērtību, kas ir negatīva, un ERAB piederošo Citadele bankas akciju vērtību, kas ir aptuveni 24,7 miljons euro (ņemot vērā bāzes scenāriju, kas paredz Privatizācijas aģentūrai piederošo Citadele bankas 75% akciju pārdošanas cenu 74,0 miljonu euro apmērā) un šīs akcijas paliek ERAB īpašumā, maksājuma summa ir aptuveni 89,5 miljonu euro. Privatizācijas aģentūra jau ir veikusi 1,26 miljonu euro avansa maksājumu ERAB finanšu saistību dzēšanai. Ņemot vērā šo avansa maksājumu, kā arī to, ka ERAB ir piekritusi pārfinansēt Privatizācijas aģentūras izsniegto subordinēto aizdevumu Citadele bankai 11,2 miljonu euro apmērā, aprēķinātais maksājuma apmērs, kas būtu jāveic Privatizācijas aģentūrai 2015.gadā, ir aptuveni 77,0 miljonu euro. Maksājuma apmērs tiks koriģēts atbilstoši Citadele bankas akciju gala cenai. Darījuma rezultātā ERAB saglabā līdzdalību Reverta (Privatizācijas aģentūrai noteiktas tiesības atpirkt ERAB piederošās Reverta akcijas par 1 euro) un

Citadele bankā, tiks dzēstas iepriekš noslēgtajos akcionāru līgumos valsts garantētās finanšu saistības, valsts varēs pabeigt Parex bankas restrukturizāciju paredzētajos termiņos.

Fiskālo ietekmi uz vispārējo valdības budžetu plānots atainot 2014.gadā, ņemot vērā, ka Citadele bankas akciju pirkuma līgums noslēgts 2014.gada 5.novembrī.

3.jautājums. Vai Jūs piekrītat, ka akciju sabiedrības „Parekss banka” akciju pārdošana ERAB, noslēdzot opcijas līgumu, faktiski nebija pārdošana, bet ir uzskatāma par Latvijas aizņemšanos no ERAB?

Atbilde: ERAB ieguldīja savus līdzekļus Parex bankā (vēlāk - Citadele bankas un Reverta pamatkapitālā), iegūstot akcijas.

4.jautājums. Ja valdība atpērk ERAB piederošās akciju sabiedrības „Citadele banka” un/vai akciju sabiedrības „Reverta” akcijas, vai tās paliks valsts īpašumā, vai tiks pārdotas, un ja tiks pārdotas, kas būs iespējamais pircējs (vai pircēji)?

Atbilde: Darījuma ietvaros netiks atpirktas ERAB piederošās Citadele bankas un Reverta akcijas, bet tiks restrukturizētas 2009.gadā uzņemtas finanšu saistības pret ERAB, saglabājot ERAB dalību Citadele bankā. Lūgums skatīt atbildes uz 2. un 3.jautājumu.

Ministre



D.Reizniece-Ozola



LATVIJAS REPUBLIKAS SATIKSMES MINISTRIJA

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Rīgā 08.12.2014 Nr. 01-08/4952
uz 04.12.2014 Nr. 622.12/2-21-12/14

Latvijas Republikas Saeimai

Par atbildes sniegšanu uz Saeimas
deputātu jautājumiem „Par „Rail
Baltica” projekta īstenošanu”

Izpildot Ministru prezidentes L.Straujumas 2014.gada 4.decembra rezolūciju Nr.45/SAN-2097, ar kuru, saskaņā ar Saeimas kārtības ruļļa 121.panta pirmās daļas 1.punktu lūgts sniegt atbildi uz Saeimas deputātu jautājumu „Par „Rail Baltica” projekta īstenošanu” (jautājuma reģistra Nr.11/J12), sniedzu sekojošas atbildes:

1.Lielbritānijas konsultāciju kompānija „Aecom Ltd.” veica pētījumu par Eiropas platuma (1435 mm) sliežu ceļa izbūves iespēju Rail Baltica koridorā. Projekta izpētē padziļināti tika pētīti četri projekta maršruta varianti. Konsultanti ieteica maršrutu Tallina - Pērnavā - Rīga - Papeveža - Kauņa, kas ir vistiešākais un īsākais no tālākā dienvidu punkta līdz šī koridora tālākajam ziemeļu punktam un par kuru 2011. gada martā arī vienojās visas trīs Baltijas valstis. Tas ir 728 km garš jauktas satiksmes (pasažieru un kravu) dzelzceļš un maksimālais kustības ātrums pasažieru pārvadājumiem tajā ir 240 km/h. Latvijā Rail Baltica kopgarums paredzēts 235 km. Izpētes rezultātā tika aprēķināts, ka kopējās līnijas izbūves izmaksas sastādīs 3,6 miljardus euro, no kurām Latvijas izmaksu daļa ir 1 222 milj. euro, jeb 35% no kopējām līnijas izmaksām.

Izvēlētajā maršrutā brauciena ilgums starp Tallinu un Lietuvas/ Polijas robežu pasažieru vilcieniem plānots 4 stundas un 8 minūtes, bet preču vilcieniem - 10 stundas un 29 minūtes. Vidējais ātrums pasažieru vilcieniem aplēsts 170 km/h, bet kravu vilcieniem - 68 km/h. Pasažieru pārvadājumi maršrutā tiktu organizēti ik pēc divām stundām. No visiem aplūkotajiem maršrutiem tieši šajā tika konstatēts vislielākais pieprasījums attiecībā uz kravu pārvadājumiem, kas galvenokārt saistīts ar to, ka tas paredz visīsāko pārvadājumu laiku.

SAEIMAS KANCELEJA

09-12-2014

Nr. 1/34-12/14 Plkst. 13¹⁴

2014.gadā 19.novembra vēstulē Nr. Nr.01-08/4688 Satiksmes ministrija paskaidroja, ka atbilstoši 2011.gada veiktajai angļu kompānijas AECOM izpētei trīs Baltijas valstīs ir izdevīgi īstenot šo projektu. Veiktās Izmaksu un ieguvumu analīzes rezultāti rāda, ka šis projekts kopumā uzskatāms par izdevīgu. Turklāt finanšu analīze liecina, ka šim projektam ir pozitīva kumulatīvā naudas plūsma visos gados, un tāpēc šajā līmenī tas ir uzskatāms par finansiāli stabilu. Investīciju finanšu rādītāji bez ES finansējuma uzrāda negatīvus rezultātus, tā uzsverot, cik svarīgi ir nodrošināt ES finansējumu.

Skaitļi arī apliecina, ka caurmērā ekspluatācijas posmā nebūs nepieciešamas subsīdijas, taču, lai palīdzētu stimulēt sākotnējo pieprasījumu, jo īpaši kravas pārvadājumu jomā, subsīdijas varētu būt nepieciešamas ekspluatācijas sākumposmā.

AECOM veiktais Ekonomiskā izdevīguma novērtējums

	„Rail Baltica” kopā		„Rail Baltica” Igaunijā		„Rail Baltica” Latvijā		„Rail Baltica” Lietuvā	
Ietekme uz ekonomiku (miljonos eiro)	Diskontētās izmaksas vai ieguvumi	Īpatstvars kopējās izmaksās/ieguvumos	Diskontētās izmaksas vai ieguvumi	Diskontētās izmaksas vai ieguvumi (uz sliežu ceļa km)	Diskontētās izmaksas vai ieguvumi	Diskontētās izmaksas vai ieguvumi (uz sliežu ceļa km)	Diskontētās izmaksas vai ieguvumi	Diskontētās izmaksas vai ieguvumi (uz sliežu ceļa km)
Infrastrukturā								
pārvaldnieka/ valsts izmaksas								
Investīciju izmaksas	1886	103 %	565	2,47	648	2,76	674	2,55
Atlikusī vērtība	-117	-6 %	-34	-0,15	-43	-0,18	-41	-0,16
Uzturēšanas izmaksas	61	3 %	19	0,08	20	0,08	22	0,08
Pārvaldnieka ieguvumi								
Infrastrukturā lietošanas maksas	521	16 %	108	0,47	111	0,47	125	0,47
<i>Pasažieri</i>	170		35	0,15	36	0,15	41	0,15
<i>Krava</i>	351		73	0,32	75	0,32	84	0,32
Pārvadātāja ieguvumi								
Pasažieru pārvadātājs								
Ekspluatācijas izmaksas (tostarp dzelzceļa izmantošanas maksas)	-372	-12 %	-77	-0,34	-79	-0,34	-89	-0,34
Ienākumi	605	19 %	129	0,56	160	0,68	215	0,81
Kravas pārvadātājs								
Ekspluatācijas izmaksas (tostarp dzelzceļa izmantošanas maksas)	-685	-21 %	-142	-0,62	-146	-0,62	-164	-0,62
Ienākumi	1142	36 %	353	1,54	339	1,44	322	1,22
Lietotāju ieguvumi								
Ietaupītā laika vērtība	1158	36 %	397	1,73	340	1,45	284	1,08
<i>Pasažieri</i>	340		135	0,59	88	0,38	71	0,27
<i>Krava</i>	818		262	1,14	252	1,07	213	0,81
Ārējās ietekmes								
Drošība (avārijas)	338	11 %	116	0,51	105	0,44	89	0,34
Gaisa piesārņojums	148	5 %	35	0,15	29	0,13	77	0,29

Klimata pārmaiņas	342 11 %	117 0,51	108 0,46	85 0,32
Kopējās izmaksas	1829	550 2,41	625 2,66	654 2,48
Kopējie ieguvumi	3198	1034 4,52	967 4,11	944 3,58
Neto pašreizējā vērtība (NPV)	1368	484	342	289
EIRR	9,3 %	9,7 %	8,4 %	7,9 %
Ieguvumu un izmaksu attiecība	1,75	1,88	1,55	1,44

Lai aktualizētu un precizētu AECOM pētījuma rezultātus Satiksmes ministrija veic papildus izpēti - Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums. Izpēte tiek veikta Eiropas transporta tīkla (TEN-T) līdzfinansēta projekta „Pētījumi par Eiropas platuma sliežu ceļa līniju (Latvijas posms)”, projekta Nr.2007-LV-27050-S, ietvaros. Projektam piešķirts finansējums ar EK 2008.gada 11.decembra lēmumu C(2008) 7978 „Lēmums par finansiālā atbalsta piešķiršanu pasākumam 11.12.2008, kas attiecas uz Kopienas finansiālā atbalsta piešķiršanu vispārējas intereses projektiem „Pētījumi par Eiropas platuma sliežu ceļa līniju (Latvijas posms)” - 2007-LV-27050-S – Eiropas transporta tīklu (TEN-T) jomā”.

Projektu “Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums ID Nr. SAM 2012/12 TEN-T” izpilda pilnsabiedrība “RB Latvija”, kura uzvarēja ministrijas rīkotajā atklātajā konkursā ar saimnieciski izdevīgo piedāvājumu, līgumcena 3 993 000,00 EUR.

Detalizētās tehniskās izpētes mērķis ir noteikt precīzu plānotās dzelzceļa līnijas Rail Baltica novietojumu LR teritorijā, tajā skaitā savienojumus ar ostu un lidostu, un veikt nepieciešamās izpētes un priekšdarbus dzelzceļa līnijas būvprojektēšanas, zemju atsavināšanas un būvniecības procesu uzsākšanai līdz 2020. gadam.

Detalizētās tehniskās izpētes rezultātā tiks:

- Sagatavoti tehniskie risinājumi plānotās dzelzceļa līnijas Rail Baltica tehniski, ekonomiski un juridiski iespējamajiem novietojuma variantiem;
- Veiktas tehnisko risinājumu un detalizēto tehnisko risinājumu pamatošanai nepieciešamās inženierizpētes;
- Veikts ietekmes uz vidi novērtējums atbilstoši normatīvajos aktos noteiktajam;
- Administratīvajās teritorijās (pašvaldībās), tur, kur nepieciešams veikt grozījumus pašvaldību teritoriju plānojumos, izstrādāts jaunās dzelzceļa līnijas lokālplānojums un veikts lokālplānojuma stratēģiskais ietekmes uz vidi novērtējums, ja tāds nepieciešams;
- Izraudzīts precīzs un no visiem aspektiem pamatots jaunās dzelzceļa līnijas novietojuma variants (galvenais dzelzceļa līnijas trases novietojuma variants);

- Galvenajam dzelzceļa līnijas trases novietojuma variantam izstrādāti detalizēti tehniskie risinājumi un sagatavota nepieciešamā tehniskā dokumentācija, lai uzsāktu nākamo projekta etapu – būvprojektēšanu un būvniecību atbilstoši Būvniecības likumam un saistošajiem normatīvajiem aktiem;

- Galvenajam dzelzceļa līnijas trases novietojuma variantam sagatavotas rekomendācijas zemju atsavināšanai un Pasūtītāja rīcībai attiecībā uz vietējo pašvaldību teritorijas attīstības plānošanas dokumentiem;

- Sagatavotas tehniskās specifikācijas un Pasūtītāja prasības iepirkumiem būvprojektēšanai, būvniecībai un saistītajiem procesiem, tajā skaitā projektēšanas uzdevums;

- Veikta projekta pilna izmaksu – ieguvumu analīze, tajā skaitā Visiem apstiprinātajiem dzelzceļa līnijas novietojuma variantiem un apakšvariantiem, nosakot papildus izmaksas, ieņēmumus, sociālekonomiskos ieguvumus un zaudējumus salīdzinājumā ar Pamatvariantu, balstoties uz iepriekšējās izpētes rezultātiem;

- Galvenajam dzelzceļa līnijas novietojuma variantam sagatavots detalizēts projekta izmaksu – ieguvumu analīzes aprēķinu modelis un veikta pilna izmaksu – ieguvumu analīze, tajā skaitā aprēķināts nepieciešamais ES finanšu instrumentu līdzfinansējums, sadalot projektu tehniski un ekonomiski nodalāmos realizācijas posmos pa atsevišķiem periodiem: no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada; Sagatavots detalizēts projekta vadības un projekta īstenošanas plāns, tajā skaitā darbu, laika un naudas plūsmas grafiks.

Vienlaikus vēršu uzmanību, ka Rail Baltica projektam nav tikai ekonomisks, bet arī ģeopolitisks raksturs un mērķis, nodrošinot ciešāku Baltijas saikni ar Eiropu un stabilitāti reģionā.

2. AECOM piedalījās atklātā un normatīvo aktu noteiktajā kārtībā organizētā publiskā iepirkumā, kur atbilstoši vērtēšanas kritērijiem tika atzīts par labāko pretendentu. Vienlaikus informējam, ka AECOM ir viena no vadošajām kompānijām pasaulē ar filiālēm daudzās pasaules valstīs un ar ievērojamu pieredzi Eiropas tirgū. Uzņēmums specializējas konsultāciju sniegšanā būvniecības, transporta un vides infrastruktūras attīstības jautājumos - projektēšanā, satiksmes prognozēs, finanšu modeļos, stratēģiskās attīstības plānos, resursu optimizācijā un pārvaldībā, kā arī publiskās un privātās partnerības projektos. Lielākie uzņēmuma īstenotie projekti ir Rionas-Antirionas vanšu tilts Grieķijā; Fortas upes šķērsojums Skotijā, D8 lielceļš Čehijā, A1 (M) Dišfortas-Daringtonas lielceļš Lielbritānijā un citi.

3. Pielikumā AECOM pētījuma gala ziņojums CD formātā.

4. Lai aktualizētu un precizētu AECOM 2011.gada pētījuma rezultātus Satiksmes ministrija šobrīd veic nacionālo izpēti - Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums. Izpēti plānots pabeigt 2015.gada laikā un tās rezultāti būs pieejami 2016.gada sākumā.

5. Projektu "Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums ID Nr. SAM 2012/12 TEN-T" nolikums un tehniskā specifikācija pieejama interneta adresē: <http://www.sam.gov.lv/sm/content/?cat=385>, kā arī pievienota pielikumā CD formātā.

6. Lai veicinātu sekmīgu Rail Baltica publiskās lietošanas dzelzceļa infrastruktūras izbūves projekta virzību un veiksmīgi apgūtu EISI garantētajās aploksnēs pieejamo finansējumu Baltijas valstu premjerministri savā Kopīgajā deklarācijā, kas tika parakstīta Tallinā 2011.gada 10.novembrī vienojās izveidot Igaunijas, Latvijas un Lietuvas kopuzņēmumu un šo apņemšanos apstiprināja kopīgajā deklarācijā, kas tika parakstīta Viļņā 2012.gada 20.septembrī, atbalstot iecerī uzsākt speciālu pētījumu, lai analizētu juridiskos, finanšu un citus aspektus Rail Baltica kopuzņēmuma, izveidei.

Šim nolūkam Rail Baltica starpvaldību darba grupa Igaunijas, Latvijas un Lietuvas valdību uzdevumā 2012.gada 25.oktobrī pasūtīja advokātu birojiem Law firm „Tamme Otsmann Ruus Vabamets” (TRINITY Tallina), Zvērīnātu advokātu birojs „TRINITY” (TRINITY Rīga) un Advokatu profesione bendrija „TRINITY” LT (TRINITY Viļņa) pētījumu „Rail Baltica kopuzņēmuma pētījums” (turpmāk - Triniti pētījums). Triniti pētījuma analīzes mērķis bija izpētīt kopuzņēmuma dibināšanas iespēju Rail Baltic projekta sagatavošanās darbu veikšanai, turpmākai ieviešanai un vispārējai vadībai.

Pētījuma gaitā tika analizēts Kopuzņēmuma izveides labākais un efektīvākais modelis, t.sk. jautājumi par vadības struktūru, tiesisko statusu, finansiāliem jautājumiem, pārrobežu dzelzceļa infrastruktūras izveides juridiskie, nodokļu un korporatīvie aspekti, kā arī labākā kopuzņēmuma mītnes vieta. Triniti pētījumā konstatēts, ka galvenā problēma, kas saistīta ar tūlītēju visu trīs Baltijas valstu Kopuzņēmuma izveidi ir tāda, ka nevienas dalībvalsts likumdošana šobrīd nepieļauj tiešas īpašumtiesības uz ārvalstu sabiedrības akcijām. Tāpēc, lai izvairītos no normatīvo aktu grozījumiem un ņemot vērā, ka Kopuzņēmums kā divpakāpju struktūra, kurā tiek izmantotas attiecīgajām dalībvalstīm piederošas holdinga kompānijās nodrošina papildus juridisko ugunsmūri starp kopuzņēmuma darbību un dalībvalstīm un tā izveide ir lētāka, tika ieteikts kopuzņēmumu veidot starp dalībvalstīm piederošām holdinga kompānijām.

Lietuva nolēma piedalīties kopuzņēmumā ar Lietuvas dzelzceļa meitas uzņēmumu UAB „Rail Baltica statyba”, bet Igaunija, nolēma piedalīties kopuzņēmumā ar šim mērķim jaundibinātu valsts kapitālsabiedrību OÜ „Rail Baltic Estonia”. Tādejādi, pamatojoties uz Triniti pētījuma rezultātiem, ņemot vērā Lietuvas un Igaunijas nominētos Kopuzņēmuma dalībniekus, lai neradītu Latvijas valstij nepamatotu finanšu risku un ilgtermiņa saistības efektīvākais un saimnieciski izdevīgākais Latvijas dalības veids Kopuzņēmumā ir ar tādu akcionāru, kas būtu līdzvērtīgs Lietuvas un Igaunijas nominētajiem akcionāriem. Tāpēc 2014.gada 15.oktobrī tika izveidota 100% valstij piederoša kapitālsabiedrība „Eiropas Dzelzceļa līnijas”, kas kļuva par kopuzņēmuma RB Rail AS akcionāru no Latvijas puses.

7. Atbilstoši iepriekš panāktajām vienošanām par ES budžetu, EISI ietvaros valstīm, kas ir tiesīgas saņemt finansējumu no Kohēzijas fonda, ir piešķirti garantētie līdzekļi 11,3 miljardu apmērā. Latvijai, kā dalībvalstij, kas tiesīga saņemt finansējumu no Kohēzijas fonda, garantētā pieejamā aploksne investīciju periodā 2014. – 2020.gadam, ir 240 milj. euro, kas ir Kohēzijas fonda līdzekļi, ar atbalsta intensitāti līdz 85%. Minētais finansējums ir ārpus nacionālās Kohēzijas fonda finansējuma aplokšnes.

8. Rail Baltica tiek veidota kā integrēta sistēma, kas nodrošina visiem transporta veidiem vienādu pieejamību Eiropas transporta telpai pa 1435 mm transporta koridoru. Tādejādi paredzams, ka negatīvas ietekmes uz nozares apgrozījumu, ieņēmumiem un strādājošo skaitu nebūs. Papildus, lai izvērtētu Rail Baltica dzelzceļa līnijas ietekmi un lomu globālās un reģionālās loģistikas koridoros, t.sk. mijiedarbību ar citiem transporta veidiem, Satiksmes ministrija ir izsludinājusi iepirkumu „Rail Baltica dzelzceļa līnijas intermodālā kravu loģistikas centra Latvijā darbības plāna un tehnisko risinājumu izstrāde”, kas pieejams interneta dresē: <http://www.sam.gov.lv/sm/content/?cat=385>, kā arī pievienots pielikumā CD formātā.

9. Jau uz šodienu darba spēka aizplūšana ir iespējama ar citiem transporta veidiem, tādejādi nav paredzams, ka Rail Baltica koridora attīstība negatīvi ietekmētu kvalificēta darbaspēka migrāciju. Tieši otrādi, ar Rail Baltica realizēšanu būs iespēja radīt jaunas darba vietas Rail Baltica dzelzceļa sistēmas ietvaros. Efektīvas, drošas un videi draudzīgas infrastruktūras pieejamība nodrošinās Baltijas reģiona ciešāku integrāciju, sadarbību un mobilitāti, veicinot tūrismu un tautsaimniecības attīstību kopumā.

10. Ņemot vērā projekta mērķi un tautsaimniecības intereses, paraudzētā līnija ir domāta jauktai satiksmei – pasažieri un kravas. Jauktajā satiksmē maksimālais pieļaujamais ātrums pasažieru vilcieniem, saskaņā ar SITS (Savstarpējās izmantojamības tehniskās specifikācijas) ir 250 km/h un

kravas vilcieniem maksimālais ātrums ir 120 km/h. Paredzētie līnijas parametri atbilst attīstīto Eiropas valstu dzelzceļu kombinētās dzelzceļa satiksmes prasībām.

Pielikumā:

1. AECOM pētījuma gala ziņojuma 1.sējums uz 332 lp. un 2.sējums uz 171 lp. (CD formātā);
2. Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums nolikums uz 35 lp., tehniskā specifikācija uz 24 lp. un Iepirkuma procedūras ziņojums uz 7 lp. (CD formātā);
3. Slēgta konkursa „Rail Baltica dzelzceļa līnijas intermodālā kravu loģistikas centra Latvijā darbības plāna un tehnisko risinājumu izstrāde” kandidātu atlases nolikums uz 27 lp. (CD formātā);
4. Sabiedrības ar ierobežotu atbildību „Eiropas dzelzceļa līnijas” statūtu kopija uz 1 lp.

Satiksmes ministrs

A.Matīss

Sabiedrības ar ierobežotu atbildību “Eiropas dzelzceļa līnijas” Statūti

I. Vispārīgie jautājumi

1. Sabiedrības firma: sabiedrība ar ierobežotu atbildību “Eiropas dzelzceļa līnijas” (turpmāk – sabiedrība).
2. Sabiedrības komercdarbības veidi (NACE klasifikators):
 - 2.1. Dzelzceļu un metro būvniecība (42.12);
 - 2.2. Tiltu un tuneļu būvniecība (42.13);
 - 2.3. Ēku būvniecība (41);
 - 2.4. Citur neklasificētie specializētie būvdarbi (43.99);
 - 2.5. Operācijas ar nekustamo īpašumu (68);
 - 2.6. Arhitektūras un inženiertehniskie pakalpojumi; tehniskā pārbaude un analīze (71);
 - 2.7. Specializētie projektēšanas darbi (74.1);
3. Attiecībā uz jautājumiem, kurus nereglamentē šie statūti, piemēro likuma “Par valsts un pašvaldību kapitāla daļām un kapitālsabiedrībām” un Komerclikuma noteikumus.
4. Šajos statūtos paredzētos paziņojumus sabiedrības pārvaldes un kontroles institūcijām nosūta pa pastu ierakstītā vēstulē vai elektroniski (piemēram, izmantojot telefaksu, e-pastu) uz adresēm, kuras sabiedrības pārvaldes un kontroles institūciju locekļi ir paziņojuši valdes loceklim, kurš kārtā dalībnieku reģistru.
5. Sabiedrības darbības mērķis ir Rail Baltica publiskās lietošanas dzelzceļa infrastruktūras izbūves projekta realizēšana.

II. Pamatkapitāls un daļa

6. Sabiedrības pamatkapitāls ir 680 000 (seši simti astoņdesmit tūkstoši) *euro*.
7. Sabiedrības pamatkapitāls ir sadalīts 680 000 (seši simti astoņdesmit tūkstoši) daļās.
8. Sabiedrības daļas pārdod likumā “Par valsts un pašvaldību kapitāla daļām un kapitālsabiedrībām” noteiktajā kārtībā.

III. Valdes loceklis

9. Valdes sastāvā ir viens loceklis.
10. Valdes loekli ievēlē amatā uz trim gadiem.
11. Valdes loceklis ir sabiedrības izpildinstitūcija. Valdes loceklis vada un pārstāv sabiedrību, un tam ir visas likuma “Par valsts un pašvaldību kapitāla daļām un kapitālsabiedrībām” 61., 62., 63. un 64.pantā deleģētās tiesības un pienākumi.
12. Papildus Komerclikumā noteiktajiem ierobežojumiem dalībnieku sapulce var noteikt, ka valdes loceklis nedrīkst būt darbinieks vai ieņemt vēlētus amatus citā komercsabiedrībā, valsts vai pašvaldības institūcijās, organizācijās un iestādēs.

Kapitāla daļu turētāja pārstāvis _____

Kaspars Ozoliņš

Rīga, 2014.gada 6.oktobris

Rail Baltica Final Report

Volume I



Co-financed by the European Union
Trans-European Transport Network (TEN-T)

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Director

Rail Baltica Final Report

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1 Introduction

This Final Report is being produced under the Contract for carrying out a Feasibility Study for a Standard Gauge Separate Railway Line within the 'Rail Baltica' Corridor through Estonia, Latvia and Lithuania. This Final Report contains information on all section/tasks identified in the Terms of Reference.

The main objective of this feasibility study is to identify the most desirable feasible development option for a TEN-T Core Network 1435 mm gauge line in the Rail Baltica corridor evolving from a "top-down" transport strategy covering all the three Baltic States and an EU-wide rail network rationale, and to give a complete and substantiated picture for the authorities of the 3 Baltic countries and the EU if the project seems viable enough to justify a more detailed analysis on the respective national levels and to propose a possible period for implementation of further studies at the national levels.

The Final Report consists of four (4) Documents:

- 1) Executive Summary;
- 2) Volume I: Final Report;
- 3) Volume II: Appendix A-F;
- 4) Volume III: Appendix G-H.

2 Methodology

2.1 Overall Methodology

Our overall strategy in undertaking this project is to combine the ten principal tasks outlined in the terms of reference and to group them into three principal phases. The split of phases and tasks is shown on

Figure 1 at the end of this section of the report. A critical philosophy underpinning the development of the study is the requirement to effectively define and seek sponsor approval for a functional specification for a new rail system. This process will ensure that technical proposals developed for Rail Baltica will be aligned to agreed economic and social objectives. The functional specifications will provide a robust mechanism for testing both the effectiveness and relevance of the various technical proposals.

Phase A: Defining the overall demand and service specification for Rail Baltica

In undertaking a strategic study for a new rail route where previously, either only weak or nonexistent corridors were in place requires both an understanding of current and past demand for passenger and freight transport services and a sound appreciation of the future long term political and economic drivers. In this context it is recognised that the reliance on classical demand models, although important will need to be effectively supplemented by a sound understanding of the national, regional and international social and economic growth strategies. A key component of this phase will be the utilisation of common study terms to facilitate a consistent approach to rail service definition.

A1: The Assumptions Register

Underpinning the study will be the need to establish an effective system which identifies records and monitors the wide range of assumptions which will need to be made particularly if the case for the future development of the corridor is to be adequately understood. As a first step, a project register will be established within which all major assumptions made particularly in the first phase can be recorded and approved both internally and by stakeholders. The register will also provide a mechanism by which assumptions can be challenged and if necessary, altered. It will deliver an effective audit trail within which all assumptions can be tracked and monitored.

One example of an initial assumption which will need to be made is to define the primary purpose of the network. Studies undertaken to date suggest that within existing geographic parameters, an essential component of demand for the route will be from freight transit particularly within the international market. In this context it is useful to assume that in the first instance, the corridor would be established and designed to maximise freight movements. Passenger movements could then be accommodated incrementally onto what would be essentially a freight railway. Where the route is unable to meet the functional requirements of passenger movements, incremental facilities can be developed to overcome the identified constraint. This is not to say that passenger services will not be considered within the scheme. Indeed, it is the opposite. However, in making such assumptions, the study process will be effectively sped up. It will also allow for example the incremental cost of the functional requirements to be effectively identified and incorporated within the emerging business case.

A2: Defining long run social and economic factors which impact on Rail Baltica

This work activity will examine and identify the long term economic factors which will influence the demand for freight and passenger rail services in the corridor. In undertaking this activity, it is recognised that any decisions made in respect of rail infrastructure development will have to consider factors outside existing parameters included within conventional demand analysis. It is important to establish factors which will give a good overall perspective of the future business case for Rail Baltica which will not be derived entirely from conventional demand analysis.

This activity will involve the analysis of published national and international long term economic and social objectives within and influencing the region. Where agreed, an understanding of known political objectives will be incorporated into the analysis and as such, a study of European Union regional and transport objectives will be made. The key objective of this study will be to inform the process which will allow a position to be taken on the long term strategic requirements of the Rail Baltica corridor. In this context, it is expected that the output will inform decisions on the capacity and capability of the corridor over a 10, 20 and 30 year time frame. In addition, it is anticipated that an understanding will be derived of the underlying economic and social factors which influence the overall demand for transport within the wider region and the issues which need to be addressed to facilitate a modal shift in favour of rail.

A3: Understanding transport demand

This activity will be concerned with developing an effective model which will assist the study in understanding the overall demand for transport in the region based on existing flow information for both freight and passenger movements. It is anticipated that a

model will be developed which will allow predictions to be made for freight and passenger demand over the 30 year study period. The model will also be able to advise on the likely shift of traffic towards the rail mode as services are enhanced through the development of the corridor itself. A key component will be the ability to predict likely changes in rail demand which will arise through the development of rail system capabilities. An excellent example here is the impact of changes to passenger demand arising from improvements in point to point journey time. Clearly there is a high degree of interaction which needs to be incorporated into the decision making process.

The modelling of freight demand is also a critical component of this study. In this area, it is recognised that traffic flows will be over a wider area and as such international and well as regional demand will need to be considered. One key issue for development will be the need to identify the requirements and processes needed to facilitate the utilisation of the traditional 1520mm gauge and the 1435mm Rail Baltica system. In this context, assumptions will need to be made at an early stage on the type and effectiveness of systems used noting impact on journey time and transit cost.

As noted above, the demand modelling for both freight and passenger services will need to identify national, regional and international flows. For freight, the opportunities will also be required to be broken down into commodity type. Importantly, this study area will work closely with study area A2 and will recognise the strengths and long term challenges inherent in demand modelling.

A4: Developing the Functional Requirements Specification (FRS)

The functional requirements of the proposed rail system set out in sufficient detail the train service specification which will be required to operate over the study period. The FRS will be derived from the analysis of potential national, regional and international demand for rail transport services. In its most basic form, the FRS could be described as the broad components of a railway timetable optimised to maximise the demand for rail transport through the Rail Baltica corridor. It will recognise that requirements will change over the study period and as such this will inform decision making on such matters as the timing of system implementation.

The FRS will form the linkage between system demand and the required technical capability of a proposed system. It will acknowledge that there will need to be a recognition that functional requirements may need to change to reflect technical constraints either in physical or economic terms. As such it will be necessary to incorporate an effective and transparent mechanism to monitor and facilitate change. The FRS will enable engineering teams to define system parameters in the sure knowledge that auditable requirements have been approved and established.

The FRS will include (but not exclusively) the following parameters:

- Service requirements between nodal points for both freight and passenger modes including calling patterns from origin to destination
- Journey time requirements between nodal points
- Service frequency between nodal points
- Train length and axle weight requirements
- Traffic mix between freight and passenger services and between national, regional and international flows
- System performance requirements
- Interchange facilities for both passenger and freight services
- Terminal facilities

Phase B: Defining project technical parameters

B5: Establishing applicable international standards

It is recognised that Rail Baltica will need to be developed within the framework of applicable international and national standards. The understanding of these standards is a key determinant of the cost and feasibility of the emerging proposals and as such it is important that the study includes all relevant factors.

This work area will undertake to review the application of international and national technical standards including assessing the impact of interoperability regulations and their associated technical standards. The study will also recognise the importance of national standards particularly given the interface with heritage systems.

Importantly, the study will also take into account the application of current and applicable EU Railway Directives in so much as they will determine organisational structures and operational procedures. It is noted that all standards and legislative measures may have a negative or positive impact on the business case for Rail Baltica. As such these impacts will be identified and included within the analysis noting any emerging benefits which might arise.

B6: Review of existing proposals

The study recognises that there are a number of previous studies which may be relevant to the current project. It is also acknowledged that there are a number of studies which are currently being undertaken which may be of relevance to the current work. In this respect, the project will undertake a review of current and past work to ensure that any duplication of work is avoided and accepted conclusions are incorporated into this study.

In common with many other railway projects it is expected that some relevant work may have been undertaken which may benefit from further development. This phase of the work will seek to identify and codify such areas and work in a transparent manner with stakeholders to agree further development options. It is anticipated that this may contribute to effective resource utilisation.

B7: Defining technical options

This activity will seek to define the project technical parameters in terms of:

- Route alignment options
- Control systems
- Motive power
- Rolling stock
- Interchange options
- Passenger handling options
- Civil engineering requirements (track and structures)
- Electrical systems
- Telecommunications

It is recognised that the level of detail which will be provided will reflect the accuracy needed to make effective decisions given the current phasing of the project. It is also noted that the parameters which are developed will have implications for both the deliverability of the functional requirements and the emerging operational costs of the railway. As such, part of the decision making process will seek to balance continuing maintenance, renewal costs of the proposal with capital requirements for construction and the need to meet the FRS. It is acknowledged that this will be an iterative decision making process and it is proposed that this is managed within a transparent process.

It is recognised that a range of possible options will be developed for each sub system. In order to distinguish between options and develop a realistic menu from which relevant proposals can be derived, a hierarchy of consideration will need to be employed. Within this hierarchy, routing and trace alignment will come above the technical sub systems. It is believed that in most cases the unit cost of sub systems will remain constant. The total cost will be a factor of the routes chosen.

B8: Understanding ongoing system operations, maintenance and renewal costs

The technical proposals produced will all have cost profiles associated with system operation, maintenance and renewals over the life span of the asset. It is important that these costs are incorporated into the business case for each of the options developed.

Phase C: Single option development and implementation strategy

C9: Single option development

The key objective of the study is to define a single option which meets the needs of the FRS and has the most effective business case. Phase B will have identified a range of options and a process will be undertaken to review the whole life costs of all options against their ability to meet the FRS. It is recognised that during this stage, tradeoffs will need to be made between functionality (as defined in terms of system capability) and the options developed. This process will again use an options hierarchy focusing initially on alignments and critical nodal points.

The single option produced will be delivered to a sufficient level of detail to allow project sponsors to make an informed decision on future design development. Critically, the decision making process will incorporate a robust audit trail allowing transparency in the decision making process.

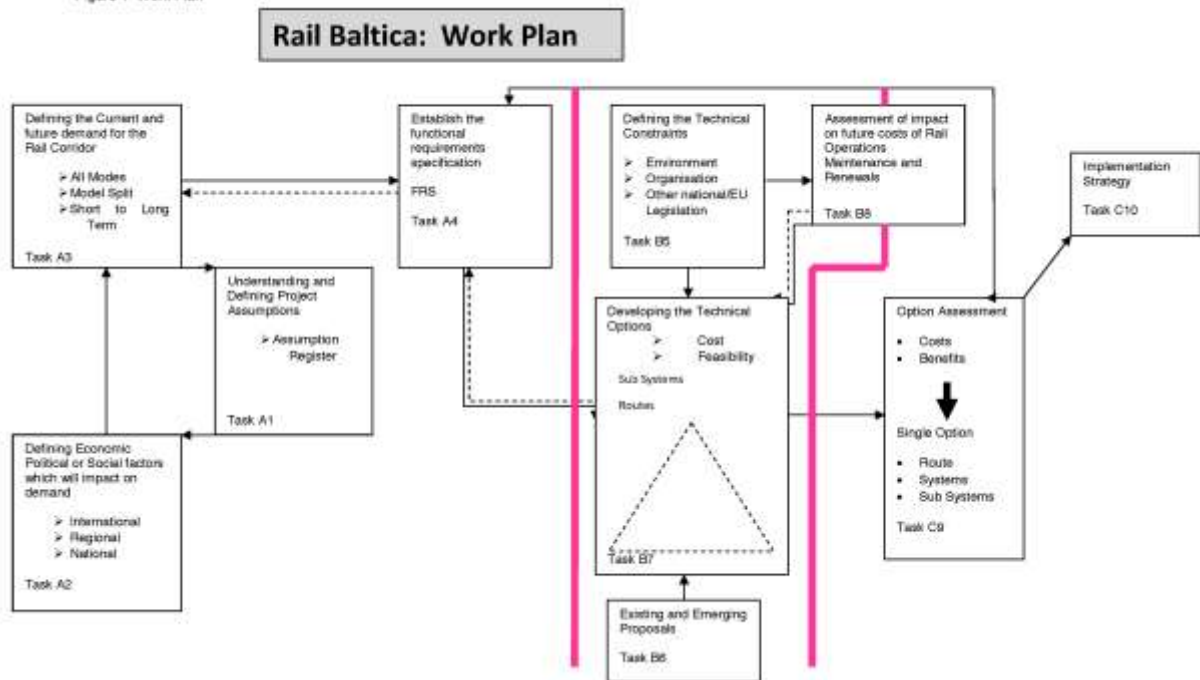
C10: Implementation strategy

The final stage of the project will be to provide a high level review of further implementation. It is recognised that with a project of this importance and complexity, it will be necessary to undertake a protracted development process. In this context this activity will focus on three principle areas:

- Identification of further activities needed to refine system capabilities
- Identification of activities need to refine the technical characteristics of the system
- Provision of a 'road map' indicating the recommended next steps

In all three activities, it is recognised that any decision to proceed to the next phase of development will need to be taken at a political level.

Figure 1- Work Plan



3 Background and Context

3.1 Project History

The issue of an interoperable North-South railway corridor linking the Baltic Countries (Lithuania, Latvia and Estonia) with Poland and the rest of the EU rail network (hereafter – “Rail Baltica”) can be seen as pivotal from the perspective of development of the railway transport mode in the region. The idea of Rail Baltica first appeared in 1994 in the joint political document “Vision and Strategies around the Baltic Sea 2010” as an important element for spatial development in the Baltic Sea Region.

The Baltic countries have historically been linked in transportation terms on an east-west axis and this is reflected in current rail traffic flows. Most rail freight traffic originates from Russia and as such, rail organisations in all 3 countries have been geared up to servicing that market. In physical terms, the provision of rail transport services is through the 1520 mm gauge system which makes interconnecting traffic with Poland both difficult to operate and costly to provide. Given the historical and physical constraints which exist, the ability of rail to contribute to real economic growth is extremely limited. For all intents and purposes, the Baltic rail system is incompatible with mainland European standards. Until, Estonia, Latvia and Lithuania joined the European Union, the issue was not considered a high priority. Now, within the European Union, there is a full consensus that the 3 countries need to be fully integrated into the wider rail transport system.

In October 2001 the European Commission initiated a revision of the TEN-T guidelines. This resulted in the adoption by the European Parliament and the Council in April 2004 of Decision No. 884/2004/EC amending the community guidelines for the development of the TEN-T. This Decision dedicated particular attention to the development of the trans-national infrastructure projects providing a response to the growth of international traffic whilst promoting cohesion within the EU, notably in the sections of the pan-European corridors situated within the territory of the new Member States as well as to the concept of “motorways of the sea”. Within this Decision the Rail Baltica axis Warsaw – Kaunas – Riga – Tallinn was identified as priority project No. 27 with the following timeframe for implementation:

- i) Warsaw – Kaunas (2010)
- ii) Kaunas – Riga (2014)
- iii) Riga – Tallinn (2016)

On 15 September 2003 the Rail Baltica Coordination Group (representing Poland, Lithuania, Latvia and Estonia) agreed on the key aspects to be considered in future studies for investment in Rail Baltica. This was followed on 27 March 2006 by the signature of a Declaration of Intent by the transport ministers of the four project countries and Finland to implement Rail Baltica. In the meantime between November 2005 and December 2006 the European Commission Directorate – General Regional Policy commissioned a strategic study of the Rail Baltica railway. The final report, published in January 2007, acknowledged that none of the options identified had a dominant business case.

Most recently, on 8 June 2010 representatives of the transport ministries of Poland, Lithuania, Latvia, Estonia and Finland during the conference “TEN-T Days 2010: Trans-European Transport Networks” held in Zaragoza, Spain, signed a memorandum expressing their political will to continue with the implementation of the Rail Baltica project. In addition, The Rail Baltica development plans have been evaluated in the Context of the White Paper – Roadmap to a Single European Transport Area – towards a Conventive and Resource Efficient Transport System, dated March 28, 2011.

3.2 Compliance with National Level Planning Strategies

3.2.1 Estonia

- (1) Estonian National Strategic Reference Framework 2007-2013

a. Priority 3: Better connection opportunities.

b. Tasks:

- i. Railway infrastructure and its carrying capacity will be developed for continuation of the transit sector development, advancement of railway traffic and reduction of the traffic load on roads. In the long-term perspective it is important to establish a fast railroad connection to Middle-Europe that would enable stimulation of the development of the North-South traffic of goods. Thus, it is very important to participate in development projects such as Rail Baltica in co-operation with Latvia, Lithuania, Poland and Finland;
- ii. Improvement of connections between the regions includes the development of all transport modes for conveyance of passengers – development of bus transport, development of railway connections. The aim will be to guarantee accessibility to everyday activity and services, including the needs of handicapped people.

(2) Operational Programme for the Development of Economic Environment

- a. Article 2.3. Transport investments of strategic importance – "...In view of the strong growth of air passenger numbers, Tallinn Airport and its transport links with the city centre need to be adapted to the evolving needs. In addition, a modern rail connection to Europe (Rail Baltica) should be established in a longer term in order to reduce distances in time and space and facilitate the growth of freight traffic to and from the South";
- b. Article 2.3.3. Indicative list of planned actions – "...ensuring the operation of international passenger and freight traffic, especially the improvement of the ability of railways and ports to handle more diversified freight flows and the readiness of waterways..." and "...preparations for the establishment of a high-speed international rail connection to Central Europe (Rail Baltica) will also continue during the current period."

(3) Estonian Transport development plan 2006-2013

The main objectives that may be associated with railway transport development are:

- a. Vision 2: High quality state infrastructure;
 - i. Objective 2 - to develop the national transport infrastructure to meet the needs of the population and business communities;
 - ii. Objective 3 - to create spatial balance and reduce developmental differences within the country.
- b. Vision 3: Reduce the negative environmental impact of the transport sector;
 - i. Objective 5 - To minimize the negative impact of the transport sector on the environment

3.2.2 Latvia

(1) Latvian National Development Plan 2007 – 2013

- a. Objective 5.2.3. - Multimodal, integrated, accessible for the public and safe transportation system.

b. Tasks:

- i. to ensure improvement and development of the international transportation infrastructure, including modernisation of all major national motorways, railroad infrastructure, ports and airports, thereby ensuring compatibility of Latvia's and EU traffic control system, thus guaranteeing full integration into the Pan-European transportation network and connection with networks used by Eastern neighbouring countries;
- ii. to improve the public transportation system; increase the accessibility of public transportation services on national, regional and local levels, to improve the quality of regional and local services by optimisation of route network, determining priority modes of transportation, and retaining rail transportation of passengers and ensuring its accessibility for all social groups;
- iii. to diversify transportation and logistics services by creating an integrated and multimodal national transportation system which is competitive in the European and global service market.

(2) Transportation Development Guidelines 2007 – 2013

- a. Overall objective - high quality and competitive transport infrastructure that is integrated into common Eurasian transport system; safe traffic and transit, logistical and public transport services that are available to everybody;
- b. Goals and tasks:
 - i. Comfortable and safe railway transportation services consistent with demand and available financial resources;
 - ii. resources;
 - iii. Effective and public needs orientated public transport system.

(3) Operational programme: „Infrastructure and services“

- a. Article 72 – "...The project aim – linking the Baltic countries with other EU states with an effective rail freight system meeting market requirements. ... An additional detailed study is necessary in order to carry out analysis of all aspects and make a justified decision on further development of the project- construction of European standard railway track (1435 mm) that would connect the Baltic States with Central Europe";
- b. Article 73 – "Within 2007-2013 programming period implementation of route Rail Baltica so-called 1st stage is envisaged- modernization of train traffic management and signalling system on the existing route where it has not been carried out

previously, as well as other improvements to the infrastructure for which co-financing from Trans-European Network (TEN-T) Budget is not applied for”.

3.2.3 Lithuania

(1) Operational Programme for Economic Growth for 2007–2013

- a. Article 1.4. “Transport Network – “...Substantial improvement of the railway line between Lithuania and Poland while implementing Phase 1 of the Rail Baltica project as part of TEN-T has been identified as a priority.”
- b. Objective 3 of the Operational Programme: Increase efficiency of economic infrastructure – “...Establishment and development of a modern North-South transport link (Tallinn–Riga–Kaunas–Warsaw) connecting the Baltic States and Poland could meet the increasing needs of the EU Member States in terms of trade and services. The key priority is to create conditions necessary for the interoperability with the EU railways network within the framework of the Rail Baltica project....”
- c. Government of Lithuania by the Resolution dated 2011.04.07 approved Rail Baltica as a project of significant importance to the state.
- d. Seimas (Parliament of Lithuania) on 2011.04.12 adopted the Law Nr. XI-1307 on Expropriation of the land for public needs implementing the projects of significant importance to the state. The law was adopted for Rail Baltica project, also for Nuclear power plant, electricity bridge LitPol Link, public logistic sites, mayor roads and other.

(2) Long-term development strategy of the Lithuanian transport system

The main objectives of the long-term railway transport development are:

- a. to create a legal framework and strengthen a market regulating authority to effectively participate in the EU railway transport market;
- b. to fully restructure the railway sector;
- c. to create a strong and effective system of traffic safety control;
- d. to create an integral system of railway environmental protection covering all potential sources of pollution (air, water, soil);
- e. to modernize the infrastructure so as to allow a successful integration into the EU transport system and modernize it in accordance with AGC and AGTC agreements and guidelines of the European Council and of the Parliament for the development of the trans-European transport network;
- f. to implement the Lithuanian railway transport sector reform according to EU legislation in order to increase the competitiveness of the national railways in the European transport services market;
- g. to acquire passenger and freight rolling stock complying with the parameters of the modernized infrastructure;
- h. to ensure railway transport safety taking account of the fact that the increasing demand for international services in terms of network and system interoperability and the opening of the market call for the reassessment of the problems of railway safety. The compatibility of systems should ensure the same (or even higher) level of safety as the one already achieved in every EU state. Therefore, the European Council Directive 96/48/EC on the Interoperability of the Trans-European High-Speed Rail System and Directive 2001/16/EC of the European Parliament and of the Council on the Interoperability of the Trans-European Conventional Rail System mentions safety as one of the most necessary requirements for operation of the trans-European rail system. This encourages taking of actions on both the technical and administrative levels.

(3) Lithuanian Strategic National Rail Transport Development Plan for 2005-2015

- a. Article 4.3 – Future need for infrastructure modernisation: “... The future role of the Rail Baltica line is therefore to capture a larger part of the freight and passengers from the roads and to assure a higher quality of safety, speed and inter-modal transportation. As a priority project the EU has included Rail Baltica on the list of Pan-European priority projects. It is a project connecting Finland and the Baltic countries and Poland with a new European gauge line. Construction of Rail Baltica will create conditions for modern transportation of freight and passengers and will further enhance the integration of this region into the railway networks of EU states”

3.3 EU Defence and NATO

One of the most important factors in national and international planning is that of providing a sufficiently high standard of transport infrastructure to support the defence and security needs of member states of different organisations. The three Baltic states would be strategically much better connected to the heartland of the European Union if the Rail Baltica project goes ahead. The three Baltic states are part of the 27 countries that make up the European Union. They are also members of NATO

whose mission is a political one to share democratic values and cooperate on defence with its 28 members. NATO is committed to peaceful resolution of disputes but if diplomacy fails it has the military capacity needed to undertake crisis management operations. In a worst case scenario a fast, direct rail route connecting the Baltic states to Central Europe would facilitate the swift movement of military equipment to the necessary locations. Increasingly military equipment is being moved in containers and the provision of intermodal terminals enables this to happen seamlessly.

4 Macro- Economic Data and Sector Context

4.1 Macro – Economic Data

This section contains a summary of the key factors to be used in the demand forecasting for Rail Baltica. These factors are considered to be

- Population
- GDP
- GVA
- Trade/Commodity flows

The full information is given in the Economic Development Study that forms Appendix A to this report.

4.1.1 Population Trends in the Baltic Region

As well as the Baltic States and Poland population trends have also been examined in Germany, the St. Petersburg region and Finland as it is considered that Rail Baltica will create demand in both the freight and passenger sectors within these regions.

Historic data

Most of the countries in Eastern Europe and the former Soviet Union have populations that are aging rapidly. The most striking case is the Russian Federation, where the population has already fallen from 149 million in 1990 to 142 million in 2010.

This aging trend is the consequence of demographic transition, which is when populations progress from pre-modern regimes, where both mortality and fertility are high, to post-modern regimes, where both mortality and fertility are low. The cause of the transition lies in the control of epidemics and contagious diseases, which eventually contribute to lower mortality, and in the processes of modernization, which leads to lower levels of fertility.

The timing of the demographic transition has varied in different regions of the world, but there is a global trend toward higher life expectancy, lower fertility, and the resulting aging of population distributions. As is the case for industrial countries, most countries in Eastern Europe and the former Soviet Union have either completed their demographic transition or are on the path to completion.

In fact, the most rapid aging during the next two decades worldwide will be in Eastern Europe and the former Soviet Union because of unprecedented declines in fertility and the increases in life expectancy of the past decades.

The population of the countries related with the Rail Baltica project has fallen from 139.4 million people in 2000 to about 138.6 million in 2009, a decrease of 0.6%. It should be noted however that the population trends in the region have not been homogeneous. For example during this period Finland experienced an average annual growth of 0.33% whilst Latvia's average annual growth was negative -0.58%.

Forecast

The changes in fertility and life expectancy have shaped the current demographic situation in the region, determining population sizes, growth rates, and population structures.

The rapid declines in fertility even among countries that already had very low levels of fertility, have meant that relatively smaller cohorts were being added to the national populations and because longevity has continuously improved, especially in those countries with already long life expectancies, it has expanded population numbers above all in the upper age groups. The net result of these changes has been a slowdown in the growth rate of populations and an increase in the proportion of the elderly in the total population.

Population in Eastern Europe is aging rapidly. By 2025, the median age will be more than 10 years greater than it is now in about half of the countries in the region. In 18 of the 28 countries in the region, the population will actually shrink by 2025.

The number of elderly people is already high in many countries and will continue to rise during the next two decades. For example, in Poland, the proportion of the population over 65 years old is projected to increase from 13 percent in 2005 to 21 percent in 2025.

The aging process has been occurring for many decades in most countries in Eastern Europe and the former Soviet Union and is expected to continue to be the major demographic phenomenon during the next 25 years and beyond. As elsewhere, the two primary contributing factors have been significant declines in fertility and major improvements in longevity, resulting from advances in healthcare. The effect of those changes on both the size and the structure of the population in the region's countries have been substantial.

The forecast of population trend has been undertaken for the following countries and regions:

- (1) Finland;
- (2) Estonia;
- (3) Latvia;
- (4) Lithuania;
- (5) Poland;
- (6) Germany;
- (7) The St. Petersburg region.

In order to estimate the population trend we have gathered and revised the forecasts prepared by the National Statistical Bureau of each country, EUROSTAT and the United Nations, and used a simple linear regression model based on the historic data. It should be noted that all forecasts were rather similar, varying by no more than 15%.

The table below reflects the average forecast population from the various sources mentioned above.

Table 1 - Average Forecast Population

Year / Country/	2015	2020	2025	2030	2035	2040	2045	2050	CAGR (%)
Finland	5 420	5 470	5 519	5 569	5 619	5 668	5 718	5 768	0.2
Estonia	1 325	1 313	1 301	1 289	1 277	1 265	1 253	1 242	-0.2
Latvia	2 200	2 152	2 104	2 056	2 008	1 960	1 912	1 864	-0.5
Lithuania	3 248	3 164	3 080	2 995	2 911	2 827	2 742	2 658	-0.6
St. Petersburg region	6 059	5 927	5 796	5 665	5 533	5 402	5 270	5 139	-0.5
Poland	37 637	37 118	36 599	36 079	35 560	35 041	34 522	34 003	-0.3
Germany	80 430	78 934	77 438	75 942	74 446	72 950	71 454	69 958	-0.4

The table below reflects the forecast of population trend in Estonia, Latvia, and Lithuania at NUTS3 level. It is assumed that negative growth is less negative in and around the largest cities within the Baltic States i.e. existing urbanization trends will continue over the next decades.

Table 2 - Forecast of population trend in Estonia, Latvia, and Lithuania at NUTS3 level.

Region	2015	2020	2025	2030	2035	2040	2045	2050	CAGR (%)
EE001Põhja-Eesti	524	524	523	522	522	521	521	520	-0,02
EE004Lääne-Eesti	158	155	152	150	147	145	143	141	-0,34
EE006Kesk-Eesti	137	135	133	131	129	127	126	124	-0,31
EE007Kirda-Eesti	166	163	161	158	156	153	151	149	-0,32
EE008Lõuna-Eesti	340	336	331	327	323	319	312	308	-0,28
LV003KurzemeRegion	289	280	270	261	251	241	232	222	-0,74
LV005LatgaleRegion	330	320	309	298	288	277	267	253	-0,74
LV006Rīga	706	700	694	688	683	677	671	665	-0,17
LV007RīgaRegion	383	381	379	377	375	373	372	370	-0,10
LV008VidzemeRegion	223	213	203	192	182	172	162	155	-1,00
LV009ZemgaleRegion	269	259	249	239	229	219	209	198	-0,85
LT001AlytusCounty	167	160	154	147	140	133	127	119	-0,93
LT002KaunasCounty	650	633	617	600	583	566	549	531	-0,57
LT003KlaipėdaCounty	373	369	365	360	356	352	348	344	-0,23
LT004MarijampolėCounty	173	167	161	155	149	143	136	130	-0,78
LT005PanevėžysCounty	267	255	243	232	220	208	196	187	-0,99
LT006ŠiauliaiCounty	331	318	306	293	280	268	255	240	-0,89
LT007TauragėCounty	121	117	113	108	104	100	95	91	-0,78
LT008TelšiaiCounty	165	159	154	148	142	136	129	122	-0,84
LT009UtenaCounty	164	159	154	149	144	139	133	127	-0,72
LT00AVilniusCounty	837	826	815	804	793	782	775	766	-0,25

These forecasts of population growth will be used in the passenger demand modelling.

Major Population Centres in the Baltic States

ESTONIA

There are 7 cities in Estonia with a population in excess of 20,000 inhabitants. These are shown in

Figure 2 - Population of Estonia below:

Figure 2 - Population of Estonia



The key cities are:

TALLINN – The capital of Estonia has a population of 406,703 (1/01/10). Tallinn has a diversified business structure, which combines advanced service-based enterprise with an industry moving towards high technology. Emotion-based economy (cultural economy, creative economy) including tourism-oriented services and, in addition, entrepreneurship connected with international logistics and transportation services are central to the field of service.

TARTU - Tartu, the second city of Estonia has a population of 102,414 (statistics Estonia, 2006). It is situated approximately 186 km southeast of Tallinn. In contrast to the capital Tallinn, Tartu is considered as the intellectual and cultural hub of Estonia, especially since it is home to Estonia's oldest and most renowned university.

Tartu is mostly known as a university town, but it is also a site of heavy industry and its manufacturing represents ~15 per cent of total manufacturing of Estonia.

Tartu industry is modernised and has been in the phase of rapid development for the last decade. Large foreign investments have been made into Tartu's traditionally strong sectors – engineering, electronics, and food industry – as well as the new ones – information technology, the glass industry and biotechnology. Foreign companies have invested also in the public services: city energy, transport and maintenance companies.

NARVA - Narva the third largest city in Estonia has a population of 65,881 (2010 figures). It is located at the eastern extreme of Estonia, by the Russian border, on the Narva River.

The town's economy is currently based on the textile industry and power engineering. The largest employers are the two local power stations and Kreenholm Holding. Traditional fields of activity also include clothing manufacture, metal-working and wood-working, as well as the production of furniture, building materials, controlling and measuring apparatuses, and industrial equipment.

KOHTLA – JARVE - Kohtla-Järve the fourth city of Estonia has a population of 44,492 (2010 figures). The city is highly industrial, and both processes oil shale (Approximately 95 per cent of produced energy in Estonia is made by burning oil – shale) and is a large producer of various petroleum products.

PARNU - Pärnu has a population of 43,488 (01/01/08) and is located in South-West Estonia on the shores of the Gulf of Pärnu. Pärnu is a health resort of international stature. According to the data of the Tax and Customs Board almost 4 thousand businesses were registered in Pärnu as of January 1, 2008. The leading industries that provide most of the city's GVA are:

- Tourism, recreation and rehabilitation (Rehabilitation Centre Tervis, SPA Estonia AS, Strand SPA & Conference, Ammende Villa, Art Nouveau style restaurant and hotel etc.);
- Forestry and wood processing (Viisnurk AS, Valmos AS, Tarriks AS etc.);
- Textile and clothing industry;
- Metal processing;
- Peat mining and processing;
- Agriculture and fishery.

VILJANDI - Viljandi is the sixth largest city in Estonia and has a population of 19,963 (2010 figures). There are almost 1 000 businesses in Viljandi, with approximately 50% of them in the service industry, 45% in trade, and 5% in production. The major industries are the construction materials industry, the textile industry, and the food and bakery industry.

VALGA/VALKA (Latvia) - Latvian town Valka and the Estonian town Valga are twin towns, separated by the Estonian/Latvian border but using the slogan "One Town, Two States". With the expansion of the Schengen Agreement and abolition of the Estonian/Latvian border in 2007 all border crossing-points were removed and since then it is possible to talk about a joint economic zone.

Total number of Valga/Valka inhabitants is 20 500.

Leading industries that mainly are represented by small companies are:

- Forestry and wood processing;
- Peat mining and processing;
- Agriculture;
- Tourism.

LATVIA

There are 9 major cities in Latvia. These are shown in

Figure 3 - Major Cities in Latvia below:

Figure 3 - Major Cities in Latvia



RIGA - Riga is the capital of Latvia, with 709,145 inhabitants (2010 figures). The population of the total Riga Metropolitan area is approximately 1, 09 million. It is the largest city of the Baltic States and third-largest in the Baltic region, behind Saint Petersburg and Stockholm.

The capital of Latvia is a lively transport hub with railway, seaport, and aviation and road networks. Modern technology and some of the world's fastest internet connections are available in Riga, while its numerous logistics parks, business and education centres support the development of new enterprises.

DAUGAVPILS - Daugavpils is the second largest city in Latvia with a population of 104,857 (01/01/09). Daugavpils is a big railway junction and industry centre (approximately 20% of all employed people in 2007 were engaged in manufacturing).

The city of Daugavpils has enterprises active in the following sectors: metal processing, food processing, civil engineering, chemicals and textile industry. Daugavpils City Municipality is planning to develop a City Business and Technology Park by 2011 – 2012 with the required infrastructure for immediate commencement of business operations. Daugavpils plans to provide a 50% real estate tax allowance for investment projects.

JELGAVA - Jelgava has a population of 65,419 (2009 figures). Jelgava is often called the City of Students as more than eight thousand students study there. One of the major strengths of Jelgava is its connectivity to the rest of Europe. Jelgava is located at a major railway junction with routes leading in both east-west and north-south directions. Moreover, the city is located in the middle of the country and is traversed by many transit roads.

The main industries in Jelgava are metallurgy, woodworking, food production, mineral based production, textiles, and plastics, publishing and polygraphs. Jelgava is home to the largest industrial park in Latvia. It occupies 23 ha and rents over 111 thousand m² of space to companies. The park is located just 2 kilometres from the main road, which runs from Riga to Lithuania and from there to the rest of Western Europe.

VENTSPILS - Ventspils is the sixth largest city in Latvia with a population of 44,100 and is one of the largest ports in the Baltic Sea region. Approximately 1000 companies and their representative offices operate in Ventspils.

Ventspils City Council along with the Free Port Authority has designated a territory of more than 1000 ha for the realization of industrial projects, including the implementation of the Ventspils Industrial Park project. Ventspils industrial sector is growing fast; the city has managed to attract new companies as well as promoting the development of already existing companies in wood processing, metal processing, engineering and automotive industries, light and chemical industry, IT and electronics sectors.

VALMIERA - Valmiera is the largest town of the historical Vidzeme region and has a population of 27,569 (2008 figures).

Over the years Valmiera has evolved into an industrial centre of Vidzeme; it hosts a number of large and well-known enterprises - "Valmieras stikla šķiedra" (fibre-glass), "Valpro Corporation" (metal processing), "Valmieras piens" (food production), "Byko-Lat" (wood-processing).

LIEPĀJA - Liepāja is the third largest city in Latvia and is an important ice-free port. As of 1 January 2010 Liepāja had a population of about 83000. Liepāja is a city successfully combining manufacturing traditions, an ice-free port, great intellectual potential and rich historical and cultural heritage.

JEKABPILS - Jēkabpils is a town roughly halfway between Riga and Daugavpils. The total number of inhabitants as of 2010 was 25 900.

REZEKNE - Rēzekne is a city in the Latgale region of eastern Latvia. It has a population of 35,883 (2008). Since 1997 the "Law on Rēzekne Special Economic Zone (RSEZ)" has been applied in Rēzekne giving tax rebates to companies with RSEZ status. Rēzekne's largest industrial enterprises are producing electrical instruments, milking clusters, wood, meat and corn products.

CĒSIS - Cēsis is located in the northern part of the Vidzeme central upland and has a population of 18,065 (2008 figures). Cēsis could be called the tourism capital city of Vidzeme as every year Cēsis attracts thousands of visitors that come to enjoy the Baltic Knight Festival, outdoor opera performances staged in the Livonian castle ruins, as well as the national dance festival "Vendene". The main industries are associated with the food industry, tourism, information technologies and rendering of services. In accordance with the Cēsis City development plan, tourism, wood-processing, food-processing and IT are the future priorities for development. Currently, the largest companies in Cēsis city are the brewery (Cēsu alus), a honey processing plant, a meat processing plant, bakeries, and a printing house.

LITHUANIA

There are 15 major cities in Lithuania (defined as having a population greater than 25,000 inhabitants. These are shown in

Figure 4 - Major cities in Lithuania below;

Figure 4 - Major cities in Lithuania



VILNIUS - Vilnius is the capital of Lithuania, and its largest city, with a population of 555,613 (847,954 together with Vilnius County) as of 2008. The city is home to major companies and key financial institutions. Highly developed infrastructure, high quality services, and increased spending power of the inhabitants all attract large foreign investments. As compared with the general situation in Lithuania, Vilnius County has a better-developed production and non-production service sector.

KAUNAS - Kaunas is the second largest city in Lithuania with a population of more than 440,000 inhabitants (including the suburbs of Kaunas). It is not only a city of old traditions, but also a large centre of business and industry. It can also lay claim to be a city of young people with over 35,000 students studying at one of the seven universities. The main industries are construction materials, food processing and textiles.

Kaunas Free Economic Zone (KFEZ, www.ftez.lt) is a 5,000 ha site located just 7 km from Kaunas. It is located on the intersection of Via Baltica, the Warsaw - Helsinki road and the Vilnius highway, which also links Klaipėda sea port with Russia and Ukraine. A company, operating in the Kaunas FEZ, pays an 80% reduced rate of income tax for the first 5 years of its operation and a 50% reduced rate of income tax for the following 5 years.

KLAIPEDA - As of 2010, the population was of Klaipeda city was 182,752. Business activities in Klaipeda are closely related to the port. The Port of Klaipeda is the principal ice-free port on the eastern coast of the Baltic Sea. It is the most important Lithuanian transportation hub, connecting sea, land and railway routes from East to West. The annual port cargo handling capacity is up to 40 million tonnes. According to the level of economic development, Klaipeda County is one of the most successfully developing regions in the Lithuania.

ŠIAULIAI - Šiauliai is the fourth largest city in Lithuania, with a population of 129,075. According to the level of economic development, Šiauliai County slightly lags behind the national average. Šiauliai has better developed industry and construction; generating 30.8 % of the gross value added (GVA) in the county. The key industries are beer production, manufacture of TVs, bicycles, plastic and paper packaging, and furniture.

PANEVĖŽYS - Panevėžys, the capital of Aukštaitija Ethnographic Region, has been the fifth largest city in Lithuania for more than a century. It has a population of 112,000 inhabitants. In 2007 there were 3 307 companies operating in Panevėžys. The food industry (beer, milk and meat products, sugar, and flour) accounts for the largest sector (29%) of production.

On September 3, 2009, after the evaluation of preparatory works, the Minister of National Economy of the Republic of Lithuania allocated the support of 17.5 mln. Litas for the construction of the infrastructure associated with a new Industrial Park (local roads, water supply and sewage, electricity networks, etc.). The construction works were started on October 19, 2009. In autumn 2010 it is proposed to offer a high quality Industrial Park to perspective investors.

TELŠIAI COUNTY – The largest towns within Telšiai County are:

- (1) Telšiai with 30 000 inhabitants;
- (2) Mažeikiai with 40 000 inhabitants.

According to the level of economic development, Telšiai County lags behind the national average; however, it may be classified as one of the strongest ones, together with those of Vilnius, Kaunas and Klaipeda. Telšiai County produced 4.3 % of country's gross domestic product (GDP).

UTENA COUNTY – The largest towns within Utena County are:

- (1) Utena with 32 000 inhabitants;
- (2) Visaginas with 28 000 inhabitants.

According to the level of economic development, Utena county considerably lags behind the national average. Utena county produced 4 % of the country's gross domestic product (GDP).

TAURAGĖ COUNTY - Tauragė is the capital city of Tauragė County. In 2010, its population was 27,500. Tauragė is situated on the Jūra River, close to the border with the Kaliningrad Oblast, and not far from the Baltic Sea coast.

ALYTUS COUNTY

Alytus is a city with municipal rights in southern Lithuania. It is the capital of Alytus County. Its population in 2010 was 66,841.

According to the level of economic development, Alytus County significantly lags behind the national average.

MARIJAMPOLĖ COUNTY - Marijampolė is an industrial city and the capital of the Marijampolė County in the south of Lithuania, bordering Poland and Russian Kaliningrad oblast. The population of Marijampolė is 46,256 (2010).

According to the level of economic development, Marijampolė County considerably lags behind the national average. Marijampolė County produced 3.2 % of county gross domestic product (GDP).

4.1.2 Macro Economic Analysis and Forecasts

GDP is the internationally recognised measure used in the analysis and forecasting of economic performance and growth. In the subsequent paragraphs the forecasts given are based upon the average data obtained from numerous sources such as the IMF and Eurostat.

Gross added value (GVA) is a measure of the value of goods and services produced in an economy and is linked to GDP as follows:

$$\text{GVA} + \text{Tax on Products} - \text{Subsidies on Products} = \text{GDP}$$

In the passenger demand modelling GVA has been used as it enables regional differences in growth to be taken into account as GVA historic data is available at a NUTS 3 level. This historic data combined with forecast GDP growth has been used to derive forecasts of GVA growth at NUTS 3 level.

Trends in GDP

Table 3 - Recent trends in GDP below highlights the recent trends in GDP for the countries in the Baltic Region.

Table 3 - Recent trends in GDP

	Average GDP growth per annum 2000 - 2008	GDP Growth 2009
Finland	3.6%	-7.2%
Estonia	13.1%	-14.6%
Latvia	7.3%	-18.0%
Lithuania	7.0%	-14.8%
Poland	4.0%	1.7%

As can be seen in the table in the period 2000-2008 all of the countries achieved an average growth in GDP greater than the EU average of 2.4% p.a. The global recession in 2008 – 2009 had a dramatic effect on GDP growth in all countries except Poland who managed to avoid a recession and record a growth of 1.7%.

Forecasts of the growth in GDP (July 2010) for the duration of the study period have been obtained from several sources:

- EBRD
- IMF
- Eurostat
- Local Authorities (Ministry of Finance, Central Bank)
- Credit Rating agencies

The forecasts given in the tables below represent an average of the forecasts obtained.

Table 4 - Figures for Estonia, Latvia and Lithuania contains the figures for Estonia, Latvia and Lithuania and Table 5 - Figures for Rail Baltica the figures for the countries potentially influenced by Rail Baltica.

Table 4 - Figures for Estonia, Latvia and Lithuania

Country / Year	Growth Forecast (%)						
	2008	2009	2010	2011	2012	2013	Av. Long term growth
ESTONIA							
GDP, M EUR	16 073	13 730					
GDP Growth %	2.9	-14.6	0.8	2.9	2.2	3.8	2.4
GDP per capita (EUR)	11 987	10 243					
LATVIA							
GDP, M EUR	23 157	18 845					
GDP Growth %	-4.6	-18.0	-2.7	1.2	1.9	2.8	2.2
GDP per capita (EUR)	10 174	8 358					
LITHUANIA							
GDP, M EUR	32 203	26 650					
GDP Growth %	2.8	-14.8	-0.1	2.3	3.9	3.5	2.2
GDP per capita (EUR)	9 590	7 980					

Table 5 - Figures for Rail Baltica

Country / Year	Growth Forecast (%)						
	2008	2009	2010	2011	2012	2013	Av. Long term growth
FINLAND	2.6	-7.2	1.7	2	2.5	2.9	1.8
POLAND	5.0	1.7	2.6	3.2	3.6	4.3	2.0
RUSSIA	5.6	-7.9	4.1	4.1	4.5	4.6	3.5
GERMANY	1.3	-4.9	1.6	1.5	1.8	1.7	1.5
AUSTRIA	4.1	-1.8	1.2	1.3	1.8	1.7	1.5
HUNGARY	0.6	-1.7	0.6	2.5	3.7	3.4	2.0
CZECH REPUBLIC	2.5	-4.2	1.9	2.5	3.8	3.7	2.2
ITALY	-1.0	-5.0	0.7	1.3	1.3	1.0	1.0
UKRAINE	2.3	N/A	3.3	3.6	4.8	4.2	3.5
BELARUS	10.2	0.2	2.6	4.3	5.0	5.0	3.5

Forecast GVA

GVA has been forecast using a trend extrapolation method applying existing economic conditions (expected changes in demography and tax or monetary policies, for example) and consensus methods by gathering a list of expert opinions thus creating a synthesis of factors affecting GVA changes in the future.

The tables below show the GVA forecast for each of the three Baltic countries split down to NUTS 3 level.

The tables clearly illustrate that growth in GVA is stronger in the urban areas than in the rural areas with percentage growth being generally above the average for the country concerned.

Table 6 - GVA Forecast for Estonia

GVA Baltic States	2009	2010	2011	2012	2013	2015	2020	2025	2030	2035	2040	2045	Av. Growth
Estonia total, incl	11 875,1	11 932,2	12 325,0	12 682,8	13 185,1	13 948,2	15 712,4	17 749,5	20 105,0	22 832,6	25 994,9	29 666,1	2.6
EE001 Põhja-Eesti	7 079,9	7 186,0	7 454,6	7 715,6	8 075,1	8 597,5	9 830,2	11 267,1	12 942,9	14 898,4	17 181,6	19 848,8	2.9
EE004 Lääne-Eesti	1 019,5	990,3	1 009,7	1 023,1	1 042,7	1 073,8	1 153,2	1 239,4	1 332,9	1 434,5	1 544,8	1 664,6	1.4
EE007 Kirde-Eesti	894,3	879,6	901,6	913,6	936,2	964,9	1 037,1	1 115,5	1 200,6	1 293,0	1 393,2	1 502,2	1.5
EE006 Kesk-Eesti	797,6	787,0	808,0	819,5	838,4	865,8	934,5	1 009,2	1 090,4	1 178,5	1 274,4	1 378,6	1.5
EE008 Lõuna-Eesti	2 083,8	2 089,3	2 151,0	2 211,0	2 292,6	2 446,4	2 757,3	3 118,3	3 538,3	4 028,2	4 600,9	5 271,9	2.6

Table 7 - GVA Forecast for Latvia

GVA Baltic States	2009	2010	2011	2012	2013	2015	2020	2025	2030	2035	2040	2045	Av Growth
Latvia total, incl	17 118,8	16 297,5	16 325,3	16 707,5	17 053,0	17 740,6	19 786,4	22 156,8	24 913,3	28 130,6	31 899,5	36 330,7	2.2
RIGA (LV006)	9 208,4	8 798,2	8 787,0	8 973,6	9 165,5	9 540,0	10 963,6	12 643,4	14 630,8	16 988,2	19 791,3	23 132,3	2.7
LV007 Riga Region	2 096,1	1 978,9	1 973,5	2 012,7	2 052,8	2 135,4	2 406,3	2 718,6	3 080,0	3 500,0	3 990,6	4 566,8	2.3
LV008 Vidzeme Region	1 249,1	1 187,0	1 197,3	1 231,6	1 254,6	1 301,8	1 366,9	1 436,3	1 510,2	1 589,0	1 673,1	1 762,8	1.0
LV003 Kurzeme Region	1 794,9	1 697,1	1 710,5	1 758,8	1 795,7	1 869,4	1 973,7	2 085,6	2 205,7	2 334,8	2 473,8	2 623,9	1.1
LV009 Zemgale Region	1 460,4	1 386,3	1 400,0	1 443,4	1 471,2	1 528,2	1 630,5	1 741,6	1 862,3	1 993,5	2 136,2	2 291,5	1.3
LV005 Latgale Region	1 309,9	1 249,9	1 256,9	1 287,5	1 313,1	1 365,8	1 445,3	1 531,2	1 624,2	1 725,0	1 834,4	1 953,5	1.1

Table 8 - GVA Forecast for Lithuania

GVA Baltic States	2010	2011	2012	2013	2015	2020	2025	2030	2035	2040	2045	Av Growth
Lithuania total , incl	23 843,1	24 322,2	25 234,8	26 097,6	27 247,5	30 367,5	33 874,9	37 821,6	42 266,4	47 276,9	52 930,1	2.2
LT001 Alytus County	2 480,6	2 525,9	2 608,6	2 694,1	2 790,1	3 045,8	3 325,6	3 631,8	3 967,0	4 334,1	4 736,2	1.8
LT002 Kaunas County	4 281,2	4 371,3	4 523,9	4 682,1	4 910,5	5 534,3	6 241,9	7 045,1	7 957,5	8 994,9	10 175,3	2.4
LT003 Klaipėda County	2 502,3	2 556,5	2 646,6	2 740,1	2 875,2	3 243,6	3 660,7	4 133,0	4 668,1	5 274,5	5 962,0	2.4
LT004 Marijampolė County	705,0	717,4	743,4	766,6	794,4	868,7	950,2	1 039,6	1 137,7	1 245,5	1 363,8	1.8
LT005 Panevėžys County	1 312,4	1 332,9	1 379,8	1 420,8	1 473,2	1 613,1	1 766,8	1 935,6	2 121,1	2 325,0	2 549,2	1.9
LT006 Šiauliai County	1 645,1	1 672,4	1 732,0	1 784,7	1 848,1	2 017,1	2 202,0	2 404,5	2 626,3	2 869,3	3 135,6	1.8
LT007 Tauragė County	378,8	384,4	397,6	409,3	424,0	463,5	506,8	554,3	606,5	663,8	726,8	1.8
LT008 Telšiai County	927,1	941,2	974,4	1 002,8	1 039,0	1 135,5	1 241,4	1 357,5	1 484,9	1 624,7	1 778,3	1.8
LT009 Utena County	920,7	934,6	967,6	995,3	1 030,9	1 125,6	1 229,7	1 343,9	1 469,5	1 607,5	1 759,3	1.8
LT00A Vilnius County	8 690,0	8 885,7	9 260,9	9 601,9	10 062,1	11 320,3	12 750,0	14 376,3	16 227,7	18 337,5	20743,7	2.5

4.1.3 Trade and Commodity Flows

The key to the success of Rail Baltica will be its ability to capture a significant percentage of the international trade between the Baltic States and the surrounding countries particularly that percentage of the overall trade moving in a north/south direction. Table 9 below shows the overall trade between these countries in 2008. It should be noted that the figure quoted for trade between Russia and Germany is a total figure much of which is carried in an east/west direction and therefore of little interest to Rail Baltica. The trade between Russia and Germany that is of interest is that to the St Petersburg region however that split is not available.

The major commodity flows (greater than 300,000 tonnes) have been examined and are listed in Table 9 - Commodity Flows below:

Table 9 - Commodity Flows

Origin - Destination	Commodity	Thousands metric tons (2008)
Finland - Germany	Paper	2 549
Latvia – Finland	Wood Products	1 257
Finland – Poland	Mineral Fuels and Oils	1 149
Finland – Germany	Wood Products	1 084
Lithuania – Latvia	Mineral Fuels and Oils	825
Lithuania – Estonia	Mineral Fuels and Oils	599
Lithuania – Finland	Wood Products	411
Finland – Poland	Paper	404
Germany – Finland	Iron and Steel	404
Finland – Germany	Mineral Fuels and Oils	347
Latvia – Germany	Wood products	325
Poland - Lithuania	Food	305

A conservative approach was taken in forecasting future freight demand. In fact, since the preparation of the freight model, a number of factors, some of which were expected, have all enhanced the case about rail freight's prospects given the right infrastructure and market conditions:

- 1) Continuing rise in world fuel prices
- 2) Competition – which is starting to evolve in the Baltic States
- 3) Container market is growing again
- 4) EU Policy is favouring a move to more sustainable transport, as referenced in the EC White Paper 'Roadmap to a Single European Transport Area'

Year 2008		TOTAL FIGURES											
		Imports, M, EUR											
Exports, M, EUR	Country	Finland	Estonia	Latvia	Lithuania	Poland	Germany	Russia	Austria	Hungary	Czech Rep.	Ukraine	Belarus
	Finland		1 438	471	442	2 115	6 560	7 618	420	352	351	628	129
	Estonia	1 380		762	613	160	429	880	38	17	46	141	54
	Latvia	195	885		1053	236	510	629	27	20	40	92	139
	Lithuania	220	918	1 766		929	1 151	2 582	48	53	116	523	723
	Poland	1 074	497	769	2 112								
	Germany	8 787	1 456	1 397	2 505			32 212					
	Russia	10 174	832	1 140	6 330		37 087						
	Austria	562	85	183	186								
	Hungary	383	71	124	175								
	Czech Rep.	629	136	161	315								
	Ukraine	65	117	100	295								
	Belarus	157	318	356	361								

4.2 Analysis of Supply of transport Services

This section of the report contains a summary of the overall analysis of the supply of transport services in the three Baltic States. The full version of the analysis is given in Appendix B. In the subsequent paragraphs a brief description is given for each mode of transport in each country. A system of quality, service and pricing metrics has then been used to offer a comparison between the various modes.

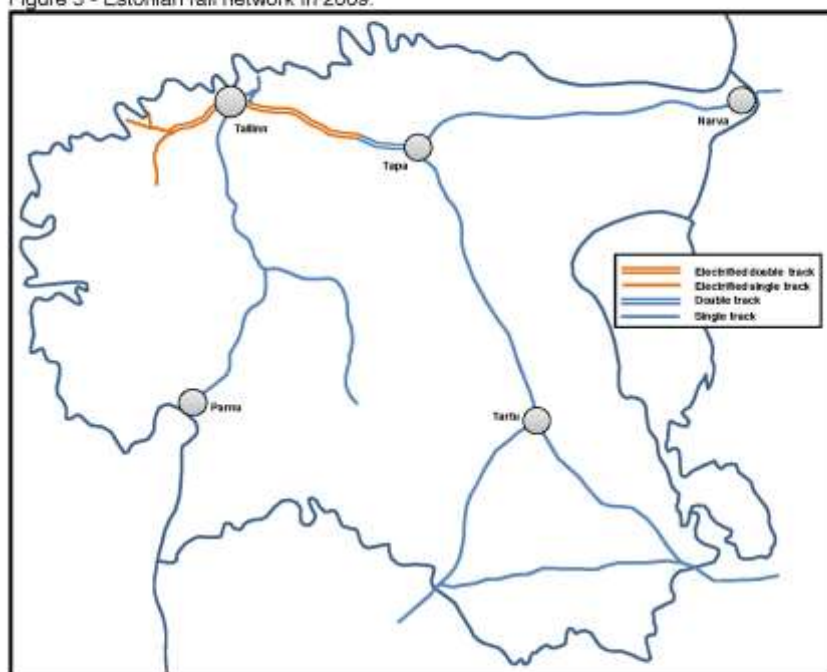
4.2.1 Description of Available Services

ESTONIA

Rail Network - The Estonian railway network is principally a single track network linking the capital city, Tallinn, with the other major towns of Narva, Tartu, Parnu and Viljandi. Additional sections of network link Tartu to the border of Latvia and the Russian Federation, with a further section of track linking up these two borders. It should be noted, however, that in 2009 there were no international rail services across the Latvian Border. In the vicinity of Tallinn the network is double-tracked and electrified.

Although there are rail services on the key corridors from Tallinn to Parnu and Tallinn to Tartu these are infrequent and suffer from slow average journey speeds, reducing the competitiveness of rail compared to coach and car. The state of the rolling stock can at best be described as satisfactory but does vary significantly depending upon the route. Some routes operate different classes of travel allowing passengers to choose their desired quality. In overall terms punctuality and safety are good.

Figure 5 - Estonian rail network in 2009.



Road Network - Estonia has a number of E-Roads linking cities with neighbouring countries. Of particular interest to the study are the E67 linking Tallinn with Parnu and the Latvian border, the E263 linking Tallinn with Valga on the Latvian border via Tartu. Other key routes include the E20 east-west route from Tallinn through to Narva on the border of the Russian Federation. In general, the quality of the roads can be considered good. The busiest highways (for example Tallinn-Tartu) are considered to be over capacity and for this reason a little unsafe. Some of the busiest highways have received criticism due to the low number of driving lanes and what are arguably low speed limits compared to elsewhere in Europe.

Figure 6 - E-Roads and other main highway routes within Estonia.



Coach Network - An extensive network of inter city coach services has developed in Estonia operated by modern coaches with high levels of customer service, particularly on the busier routes such as Tallin – Tartu and Tallinn – Pärnu. Tallin is linked to Tartu at least every 30 minutes and approximately every hour to Pärnu. All in all, the perceived quality of coach transport is different depending on the destinations but on average can be estimated as good.

Air Network - There are a number of airports in Estonia providing commercial civil aviation including international flights these include, Kardia airport, Kuressaare airport, Pärnu airport, Lennart Meri Tallinn airport and Tartu-Ulenurme. Tallinn airport is the biggest of these facilities. During the first quarter of 2010 it handled a total of 304,700 passengers, which is 8% less than the same period the previous year. There are a number of commercial internal flights; however, these principally cater for travel from the mainland to the islands to the north of the Gulf of Riga, the two largest of which are Saaremaa and Hiiumaa.

Figure 7 - Principal air routes available from Estonian airports for the Baltic region.



Sea Traffic - Passenger transport by sea is at very low levels for origins and destinations relevant to Rail Baltica therefore this has not been taken into account in the passenger demand modelling. There are no north – south services in the corridor except very long distance services from Germany – Estonia which would be expected to be used for leisure purposes.

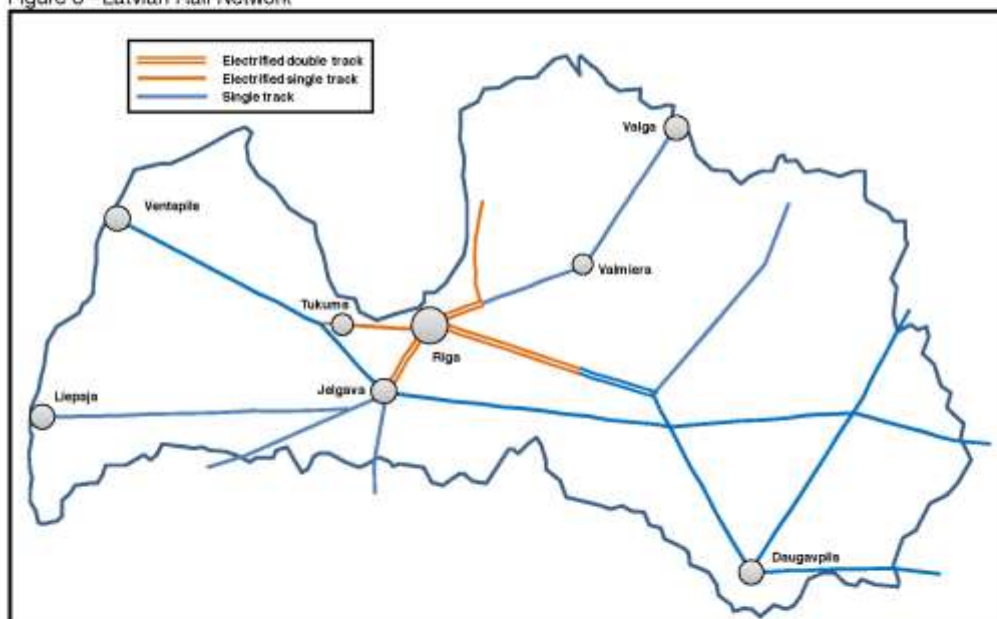
The main port in Estonia is the port of Tallinn which accounted for 82% of sea freight tonnage in 2009 (31.6 million tonnes). Other ports include Kunda, Mäe-Luudanna, Pärnu and Vene Balti, however, these ports do not have annual tonnages which would make them of relevance to this project.

LATVIA

Rail Network - The Latvian rail network is comprised of Russian gauge (1,520 mm) lines, with a small proportion of electrified track, principally around Riga with the longest section covering the 82km route from Riga to Aizkraukle. A smaller proportion of railway lines into Riga are also double-track. Figure 4.53 shows a map of the national railway network. There are regular services on the local rail network radiating from Riga; however services are less frequent on longer distance routes.

Generally speaking, the railway stations have not been renovated for a long period of time. Therefore they require investment both in the infrastructure by improving the functionality of the stations, as well as in design by, for example, simply renovating them. The same is true for the rolling stock, which have in many cases not been modernized since the 1990s. In general terms the punctuality of the railway is excellent with DZ/PV indicating a punctuality of 98%.

Figure 8 - Latvian Rail Network



Road Network - Latvia has a number of E-Roads linking with Estonia and Lithuania. The E67 is the principal road route from Riga to Tallinn and the E264 is the most direct route from Riga to Tartu. The E77 also links Riga with Estonia; however, it crosses the border very close to the Estonian / Russian Federation border providing a route from Latvia to St Petersburg. The principal links between Riga and Lithuania are the E77 to Siauliai (and also on to Kaliningrad) and the E67 to Panevezys.

Figure 9 - E-Roads within Latvia below displays all the routes classified as E-Roads within Latvia together with the other main highway routes.

Coach Network - Similar to the other Baltic States an extensive inter-city coach network has been established in Latvia operated by a modern fleet of coaches and competes with existing rail services internal to Latvia. On the core route from Riga to Jelgava, there are high frequency mini bus services (approx 80 per day), providing strong competition to the rail service on this corridor.

Figure 9 - E-Roads within Latvia



Air Network - There are a number of civil airports in Latvia providing commercial aviation including international flights, these include Riga International Airport, Liepāja International Airport and Ventspils International Airport. There are domestic flights in Latvia between Riga and Ventspils and between Riga and Liepāja, but none that link the key routes described above. During the period from January - May 2010, Riga airport handled a total of 2.1 million passengers, which was 15.1% more than the same period the previous year.

Figure 10 - Principal air routes available from Latvian airports for the Baltic region.



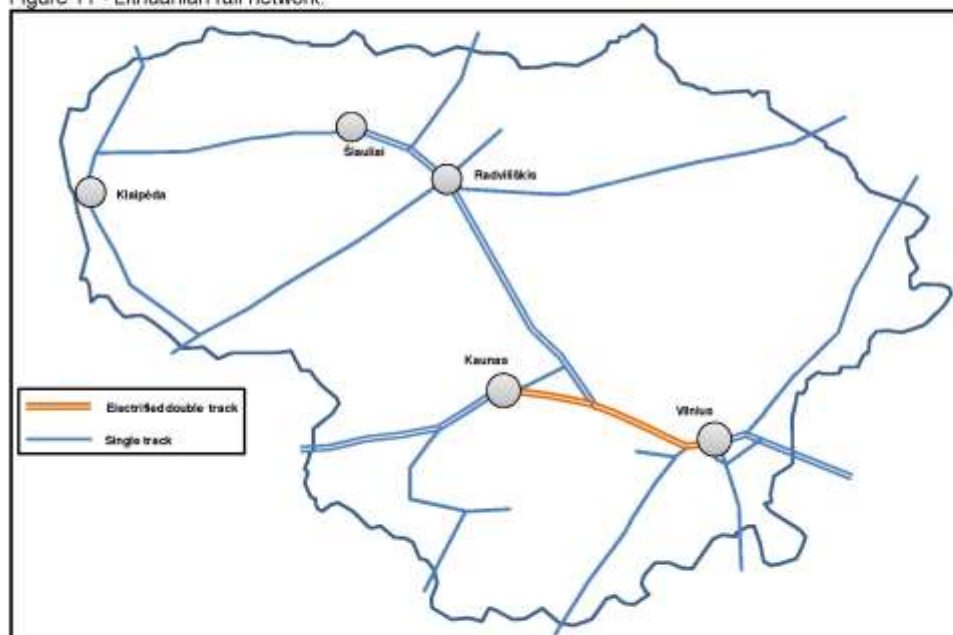
Sea Traffic - Sea transport of freight accounted for 62 million tonnes in 2009, a slight decrease on 2008. The majority of freight by sea is loaded at Riga or Ventspils. With a very large imbalance being present between cargoes loaded and unloaded (cargoes unloaded only represent 7% of the total).

Passenger transport by sea is at very low levels for origins and destinations relevant to Rail Baltica therefore this has not been taken into account in the passenger demand modelling. There are no regular north – south services in the corridor from Riga

LITHUANIA

Rail Network - The Lithuanian rail network is formed of Russian gauge (1,520mm) lines and is entirely operated by Lithuanian Railways, the National, State-owned railway company. 122 km of the route (about 7%) is electrified, with a significant proportion of the network linking Vilnius, Kaunas, Radviliskis and Siauliai comprised of double track. The punctuality of the network is good however the rolling stock would benefit from modernisation.

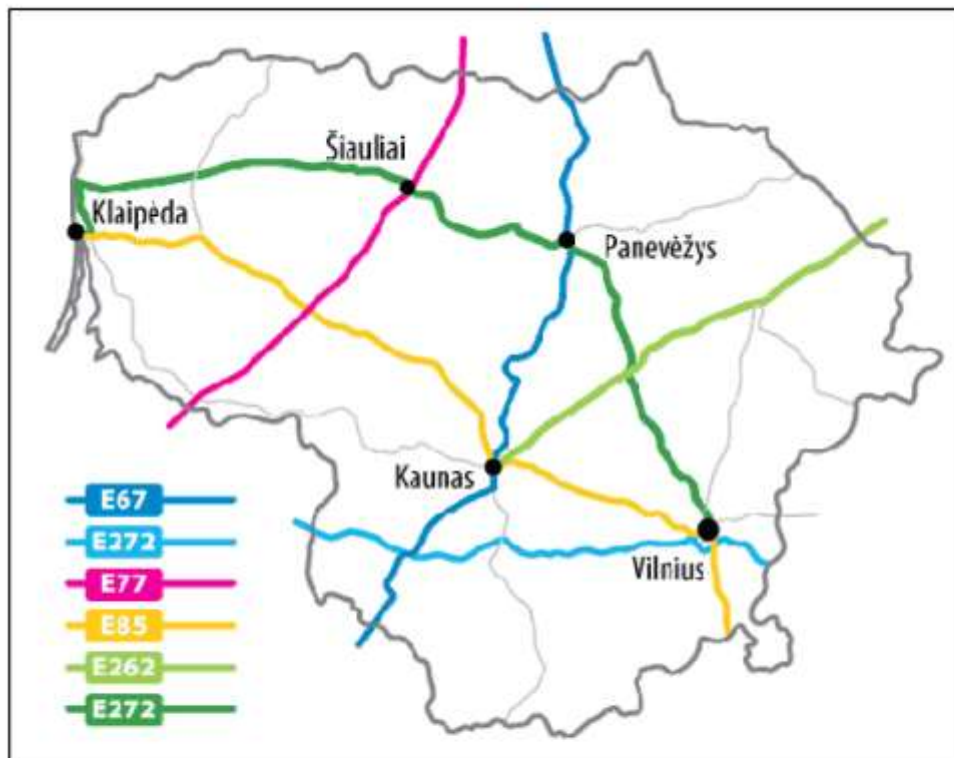
Figure 11 - Lithuanian rail network.



Road Network - Lithuania has two key E-Roads linking with Latvia: the E77 from Siauliai to Riga and the E67 from Panevezys to Riga. Figure12 - Road Network displays all the routes classified as E-Roads within Lithuania together with the other main highway routes.

Coach Network - Like Estonia and Latvia there is an extensive intercity coach network in Lithuania competing with existing rail services

Figure12 - Road Network



Air Network - There are four international airports in Lithuania at: Vilnius, Kaunas, Palanga and Šiauliai. Vilnius is the largest of these in terms of air passenger traffic, handling 1.3 million passengers in 2009. Over the first seven months of 2010, Lithuanian airports served 1.3 million passengers, an increase of 22.6 percent year-on-year.

Figure 13 - Principal air routes available from Lithuanian airports for the Baltic region.



Sea Traffic - There are two major ports in Lithuania – Klaipeda and Butinge. Klaipeda accounted for 77% of freight tonnage in 2009 or 28 million tonnes. The vast majority of freight handled at Butinge is liquid bulk from Russia (95% in 2008), therefore this port has not been analysed in further detail.

Passenger transport by sea is at very low levels for origins and destinations relevant to Rail Baltica therefore this has not been taken into account in the passenger demand modelling.

4.2.2 Comparison of Transport Services

A number of metrics have been established to enable the existing supply of transport services for the various modes to be scored in relation to quality, service and price, thereby providing a simple framework for comparing existing transport service provision on the corridor. The assessment has been quantitative where possible, but each metric has been related to a five point scoring system to permit comparison between modes and journeys and for ease of presentation in the summary tables. The scoring system is shown in Table 10 below.

Table 10 - Scoring system

Excellent	5
Good	4
Fair	3
Poor	2
Very Poor	1

The following tables show the comparisons for:

- International passenger movements
- Internal passenger movements
- International/Internal Freight Movements

Table 11 - International passengers movements

	Rail								Road (car)								Road (coach)								Air							Volume (passengers per day) one-way
	Quality		Service			Mode Share		Quality		Service			Mode Share		Quality		Service			Mode Share		Quality		Service			Mode Share					
	Comfort	Facilities	Freq	Reliability	Speed		Pricing	Comfort	Facilities	Freq	Reliability	Speed		Pricing	Comfort	Facilities	Freq	Reliability	Speed		Pricing	Comfort	Facilities	Freq	Reliability	Speed		Pricing	Mode Share			
E S T O N I A																																
Tallinn-Riga	-	-	-	-	-	-		3	3	5		2	3	63%		3	3	4		2	4	16%		4	4	3	3	4	1	21%	1,001	
Tallinn – Kaunas	-	-	-	-	-	-		3	3	5		2	3	86%		3	3	3		1	3	14%		-	-	-	-	-	-	-	28	
Tallinn – Vilnius	-	-	-	-	-	-		3	3	5		2	3	43%		-	-	-	-	-	-	11%		4	4	2	3	4	1	47%	160	
Tallinn - Warsaw	-	-	-	-	-	-		2	2	5		2	3	19%		-	-	-	-	-	-	2%		-	-	-	-	-	-	79%	68	
L A T V I A																																
Riga-Tallinn	-	-	-	-	-	-		3	3	5		2	3	63%		3	3	4		2	4	16%		4	4	3	3	4	1	21%	1,001	
Riga-Vilnius	-	-	-	-	-	-		2	2	5		3	3	40%		3	3	3		2	3	25%		4	4	3	3	4	1	35%	587	
Riga-Kaunas	-	-	-	-	-	-		2	2	5		2	3	61%		3	3	2		1	3	25%		4	4	2	3	3	1	14%	232	
Riga - Warsaw	-	-	-	-	-	-		2	2	5		2	3	27%		3	3	1		1	3	4%		4	4	2	3	4	1	69%	69	
L I T H U A N I A																																
Vilnius-Riga	-	-	-	-	-	-		2	2	5		3	3	40%		3	3	3		2	3	25%		4	4	3	3	4	1	35%	587	
Vilnius-Warsaw	3	3	1	1	1	3	5%	2	2	5		2	3	24%		3	3	1		2	3	25%		4	4	2	3	4	1	45%	135	
Vilnius - Tallinn	-	-	-	-	-	-		3	3	5		2	3	43%		-	-	-	-	-	-	11%		4	4	2	3	4	1	47%	160	
Kaunas-Riga	-	-	-	-	-	-		2	2	5		2	3	61%		3	3	2		2	3	25%		4	4	2	3	3	1	14%	232	
Kaunas- Warsaw	3	3	1	1	1	3	2%	2		5		2	3	89%		3	3	1		2	3	8%		4	4	2	3	4	1	0%	197	
Kaunas - Tallinn	-	-	-	-	-	-		3		5		2	3	86%		3	3	3		1	3	14%		-	-	-	-	-	-	-	28	
Excellent 5 Good 4 Fair 3 Poor 2 Very Poor 1																																

Note: The Passenger volumes between Vilnius – Warsaw and Kaunas – Warsaw give in the Table are average daily one-way volumes. The numbers have been calculated from data obtained from Lithuanian National Statistics Database (<http://www.stat.gov.lt/en>)

Table 12 - Internal passenger movements

	Rail						Road (car)						Road (coach)						Air					Total Volume	
	Service						Service						Service						Service						
	Quality	Freq	Speed	Pricing	Mode Share		Quality	Freq	Speed	Pricing	Mode Share (%)		Quality	Freq	Speed	Pricing	Mode Share (%)		Quality	Freq	Speed	Pricing	Mode Share (%)		
E S T O N I A																									
Tallinn-Tartu	3	2	2	4	5		3	5	2	3	72		4	4	2	3	23		-	-	-	-	-		4,846
Tallinn-Pärnu	3	1	3	4	2		3	5	2	3	79		4	3	1	3	18		-	-	-	-	-		3,589
L A T V I A																									
Riga-Jelgava	3	4	1	4	19		3	5	2	3	69		3	4	1	4	11		-	-	-	-	-		10,462
Riga-Daugavpils	3	1	2	4	11		3	5	2	3	65		3	4	2	4	24		-	-	-	-	-		6,760
Riga-Tukums	3	3	1	4	16		3	5	2	3	74		3	3	1	4	9		-	-	-	-	-		3,833
Riga- Valmiera	3	1	1	4	2		3	5	2	3	79		3	3	1	4	19		-	-	-	-	-		3,697
L I T H U A N I A																									
Kaunas – Vilnius	3	3	2	4	13		4	5	2	3	73		3	4	2	3	14		-	-	-	-	-		20,087
Kaunas - Šiauliai	3	1	2	4	3		3	5	2	3	81		3	3	1	3	16		-	-	-	-	-		3,626

Excellent	5
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Good	4
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Fair	3
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Poor	2
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Very Poor	1
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Table 13 - International/Internal Freight Movements

From	To	Type	RAIL			ROAD			SEA			Current Modal Split		
			Quality	Service	Pricing	Quality	Service	Pricing	Quality	Service	Pricing	Rail	Road	Sea
Finland	Germany		No Current Service			3	2	1	5	3	4	0%	11%	99%
Germany	Finland		No Current Service			As above		As above	5	3	4	0%	11%	99%
Germany	St Petersburg		No Current Service			4	2	2	4	3	5	0%	0%	100%
St Petersburg	Germany		No Current Service			As above		As above	4	3	5	0%	0%	100%
Latvia	Germany		No Current Service			4	2	3	4	4	5	0%	6%	94%
Lithuania (N)	Lithuania	Bulk	5	5	4	5	5	5	No Service			10%	90%	0%
		non-bulk	2	2	3	5	5	5	No Service			10%	90%	0%
Latvia	Finland		No Current Service			3			4	3	3	0%	2%	98%
Estonia (N)	Estonia	Bulk	5	5	5	4	4	4	No Service			11%	89%	0%
		non-bulk	2	2	5	4	5	4	No Service			11%	89%	0%
Lithuania	Germany		No Current Service			4	4	3	4	4	4	0%	40%	60%
Estonia (S)	Estonia		As Estonia (N)			4	4	4	No Service			13%	87%	0%
Germany	Lithuania		No Current Service			4	4	3	4	3	4	0%	34%	66%
Poland	St Petersburg		No Current Service			4	4	3	4	4	4	0%	100%	0%
Germany	Latvia		No Current Service			4	4	3	4	4	4	0%	24%	76%
Lithuania	Poland	Bulk	2	5	4	4	3	3	4	3	4	41%	44%	16%
		non-bulk	2	5	3	4	3	3	4	3	4	41%	44%	16%
Latvia (N)	Latvia	Bulk	5	5	4	4	4	5	No Service			1%	99%	0%
		non-bulk	2	2	4	4	4	5	No Service			1%	99%	0%
Estonia	Germany		No Current Service			4	2	2	4	4	4	0%	12%	88%
Lithuania	St Petersburg		No Current Service			4	4	4	4	4	3	0%	97%	3%
Lithuania (S)	Lithuania		As Lithuania (N)			4	4	4	4	4	3	0%	97%	3%
Lithuania	Latvia	Bulk	5	5	4	4	4	3	2			57%	32%	11%
		non-bulk	2	2	3	4	4	3	2			57%	32%	11%

Excellent

5

Good

4

Fair

3

Poor

2

Very Poor

1

4.2.3 Summary

In terms of rail throughout the Baltics the international passenger service is poor and whilst there are a number of key internal routes served the services are generally perceived as being infrequent and slow. The services however are relatively cheap and do offer reasonable quality. For freight there is a developed east/west network but not a competitive north/south one.

The lack of a passenger rail service, combined with a comprehensive road network, has led to the development of a reasonable quality coach network offering both internal and international services which is very popular particularly for the shorter distances. For longer distances air becomes more popular even though its cost is significantly higher.

For north/south freight movement road and sea are the main options.

4.3 Existing Demand

Gaining an understanding of the existing transport demand in the Rail Baltica corridor is the first step in the forecasting process. The Rail Baltica service can be expected to compete on the corridor with existing rail services and other modes of transport e.g. by air, by road and by sea. This section of the report discusses the existing level of demand in the Rail Baltica corridor, for both passengers and freight, for various existing modes and summarises the total volume of passenger trips and freight tonnages between key centres which are potentially in scope of the new rail service. The existing level of trips on the corridor forms the starting point for forecasting future overall corridor demand and subsequent assessment of transfer to the potential Rail Baltica Rail service, which is discussed in Section 4 of this report.

4.3.1 Passenger Demand Data Sources

The sections below discuss the sources which have used to derive existing levels of demand on the corridor for each of the main existing passenger transport modes. The report then summarises by each of the Baltic States the existing volume on the corridor for key movements within each of the Baltic States and then for key international cross border movements.

In summary there is more available data relating to international cross border movements by the various alternative modes of transport than for movements internal to countries. For international cross border movements this data has generally been used as the basis for our assessment of existing demand. For movements internal to countries we have synthesised existing demand for key origin – destination pairs by developing a gravity model which we have calibrated where possible against the available data for internal movements. The process adopted for synthesising existing demand is described in Section 4 of this report, with the sections below referencing when this method has been adopted to calculate the existing demand.

Table 14 - Summarises the rail data sources for Estonia, Latvia and Lithuania.

Source	Function
E S T O N I A	
Number of goods and passenger trains between cities on Estonian rail network in 2009. Source: Statistics Estonia;	This data provides details of the average number of trains per day in 2009 on the eastern lines from Tallin (between Tallinn and Tapa, Tapa and Tartu, Tapa and Narva) and on the southern lines from Tallinn to Parnu and Viljandi. Number of trains to Narva on Russian border used to estimate demand from Tallinn to St Petersburg
Passenger traffic on railways by year and month (total volumes and passenger kms). Presented for 2009 and 2010 for whole country. Source: Statistics Estonia;	Provides total passenger volumes for Estonia, but does not include any additional detail (e.g. line section or origin and destination breakdown).
Boarding and alighting passenger for all rail stations in Estonia for 2009. Source: Estonian Technical Surveillance Authority	Has been used to assist in calibrating the synthetic demand model for movements internal to Estonia
Eesti Raudtee Annual Report, 2009	Rail freight current volumes and origins / destinations, information on current train weights
Eurostat	Used to cross-check Eesti Raudtee information for origins and destinations
L A T V I A	
Latvia Rail Brochure – total internal and international rail passengers in 2009. Source: LDZ (Latvia)	Provides total internal and international passengers but does not include any additional detail.

Rail passenger flows between cities in Latvia. Source: PV	Provides total passenger flows on rail sections defined, including: Riga – Tukums, Riga – Jelgava and Riga – Daugavpils for years from 2005 to 2009.
2009 passenger movements between stations on key rail lines relevant to Rail Baltica Source: LDZ (Latvia)	Has been used to assist in calibrating the synthetic demand model for movements internal to Latvia
2009 passenger flows on international lines from Latvia, including Riga to Moscow and Riga to St Petersburg. Source: LDZ (Latvia)	Has been used to calculate passenger flows for Riga to Moscow and Riga to St Petersburg. Confirmation also provided that In the year 2009 there were no international trains from Latvia to Estonia and Lithuania.
Detailed rail freight volumes by origin / destination and border crossing station. Some commodity information provided for inter-baltic flows. Source: LDZ (Latvia)	Rail freight current volumes and origins / destinations,
L I T H U A N I A	
International passenger rail embarkation and disembarkation figures for Lithuania by country for 2004 – 2008. Source: Statistics Lithuania;	Provides detail to calculate international passenger totals travelling into and out of Lithuania, but not sufficient detail to distinguish between journey start / end in Lithuania.
Lithuanian railways passengers 2006 – 2010 split between local and international networks. Source: JSC "Lithuanian Railways"	International data included split by transit trip and trips terminating or originating in Lithuania. This provided an estimate of demand between Kaliningrad and Russia
Rail passengers flows on lines in Lithuania, 2005 – 2010; Source: JSC "Lithuanian Railways"	Provides passenger totals on rail links between cities including: Kaunas – Vilnius, and Vilnius – Daugavpils. Does not however provide details relating to boarding alighting at intermediary locations on line. The total flow between specific origins and destinations is therefore unclear, especially between Kaunas and Vilnius.
Detailed rail freight volumes by origin / destination and border crossing station. Commodity information provided for inter-baltic flows. Source: JSC "Lithuanian Railways"	Rail freight current volumes and origins / destinations,
I N T E R N A T I O N A L	
Annual national and international railway passenger transport by region of embarkation and region of disembarkation (NUTS 2, number of passengers, 2005 data). Source: Eurostat	Provides demand into the Baltic states from countries external to the region. Also provides indication of very low volumes of rail trips between the Baltic states and Poland.
Detailed rail freight volumes by origin / destination and border crossing station. Commodity information provided for inter-baltic flows. Source: JSC "Lithuanian Railways"	Rail freight current volumes and origins / destinations for transit traffic.

Table 15 - Contains a summary of the data sources used for estimating car volumes.

Source	Function
E S T O N I A	
Plan of Estonian link traffic volumes (2009 AADT) on approaches to main cities.	Provides volume data to be used in synthesising internal Estonian origin / destination car flows.
L A T V I A	
Latvian Border road traffic counts (2005, 2009) – counts for around 20 highway routes, disaggregated by vehicle type.	Provides a calibration dataset for calculating international traffic volumes.
Plan of Latvian link traffic volumes (2009 AADT, including heavy vehicle volumes)	Provides volume data to be used in synthesising internal Latvian origin / destination car flows.

L I T H U A N I A	
Plan of Lithuanian link traffic volumes (2009 AADT, including heavy vehicle volumes). Source: Lithuanian Ministry of Transport and Communications	Provides volume data to be used in synthesising internal Lithuanian origin / destination car flows.
I N T E R N A T I O N A L	
2004 Via Baltica Road Side Interview Surveys at border crossing locations between Baltic States plus at Lithuanian / Polish Border.	Base source for cross border car movements, which has been calibrated to 2009 observed border crossing flows based on other data sets

Table 16 - Contains a summary of the data available for coach passenger volumes.

Source	Function
2004 Via Baltica Road Side Interview Surveys at border crossing locations between Baltic States plus at Lithuanian / Polish Border.	Base source for cross border bus movements, which has been calibrated to 2009 observed border crossing flows based on other data sets
Estonian Passenger transport by bus on scheduled domestic highway lines and scheduled international routes (2000-2009) Statistics Estonia.	Provides growth data as well as 2009 calibration total international passenger volume
Lithuanian bus passengers, international, national and regional by year to 2006 (passenger volumes, passenger km and vehicle kms). Statistics Lithuania.	Provides passenger growth data and average bus occupancy data.
Lithuanian Passenger traffic by buses by administrative territory, type of route (2004-2008) Statistics Lithuania.	Data split by International traffic routes and Long distance traffic routes which allowed estimate internal demand to be made and provided calibration point for international trips
Various timetables providing details of cross border Inter City coach services and key services internal to countries Source: Operator timetables	Has been used to provide a forecast of bus demand for key cross border and internal inter city coach services. Subsequently been used to assist in calibrating the synthetic demand model for movements within Baltic States and provide estimate of cross border coach volumes.

Table 17 - Contains a summary of the data sources used for estimating road freight volumes.

Source	Function
L I T H U A N I A	
2008 detailed origin and destination information for Lithuania: Provided by Lithuanian government	Inter-Lithuania volumes
I N T E R N A T I O N A L	
Eurostat loading and unloading information by NUTS3 region for Lithuania, Latvia and Estonia	Provides base volumes for the freight model for journeys to and from Lithuania, Latvia and Estonia except for inter-Lithuania journeys
Eurostat loading and unloading information by country for Germany, Poland, Finland, Italy, Austria, Ukraine, Belarus, Hungary, Czech Republic, Russia	Provides base volumes for transit journeys within the freight model
Individual country commodity data Source: Eurostat	Used to determine split of road freight into bulk and non bulk traffic
Eurostat vehicle km and tonne km information for road freight by commodity for Lithuania, Latvia, Estonia and Poland	Used to determine average lorry weight for bulk and non-bulk traffics

Table 18 - Contains a summary of the data available for air passenger volumes.

Source	Function
E S T O N I A	
Freight and passenger traffic through Tallinn airport by year for 2009. Source: Statistics Estonia.	Provides calibration data
Freight and passenger traffic through all Estonian airports by year for 2009. Source: Statistics Estonia.	Provides calibration data for total country demand
Air passenger totals to Helsinki, Vilnius, Riga and Warsaw from Tallinn airport 2005 – 2009. Source: Statistics Estonia	Provides volumes for specific movements in matrix
Total Passengers at Tallinn Airport 2000-2009 (both arriving and departing) Top 10 destinations served from Tallinn Airport 2009 (share of total passengers on scheduled flights) Source: www.tallinn-airport.ee/eng/associates/GeneralInfo/statisticsandsurveys	Provides basis for calculation of demand to specific locations from Tallinn airport
L A T V I A	
Passenger arrivals and departures from Riga airport by country. Statistics Latvia	Provides basis for calculation of demand from Riga airport to countries outside the Baltic region.
Riga airport passenger volumes to Tallinn, Vilnius, Kaunas, Helsinki, Warsaw and transfer passengers. Statistics Latvia	Provides demand from Riga to key cities in Baltic Region
L I T H U A N I A	
Lithuanian air passenger arrivals and departures for Vilnius, Kaunas, Siauliai and Palanga to 2008. Source: Statistics Lithuania.	Provides basis for calculation of demand from specific locations within Lithuania
Lithuanian air passenger totals for origin countries for 2000 and 2008. Source: Statistics Lithuania.	Provides basis for calculation of demand to specific locations from airports in Lithuania

Table 19 - Contains a summary of the data available for sea freight volumes.

Source	Function
Eurostat port information giving origin and destination tonnages for containers, ro ro, general cargo, liquid bulk and dry bulk for 2008	Provides base sea freight model volumes
Eurostat information on the weight of a maritime container for Lithuania, Latvia, Estonia and Poland	Used within the model to estimate average container weights

4.3.2 Existing Passenger Volumes

Passenger trip matrices have been developed for each mode based on the data sources described above. Where demand for a movements has been fully observed this data has been used to populate the demand matrices. Examples of situations where demand has been observed are for cross border car trips where demand was observed in 2004 RSI surveys undertaken for Via Baltica study; and air trips where annual passenger volumes for specific routes are available. For movements internal to countries observed data that gives the direct demand between origins and destinations has not been available. For these movements we have synthesised existing demand for key origin – destination pairs by developing a gravity model which we have calibrated where possible against the available count data and estimates of demand based on service capacities. The process adopted for synthesising existing demand is described in Section 4.4 of this report. The calculated existing volumes for key routes are described in the section below. The matrices have been colour coded to indicate whether demand has been derived from directly observed data sets or synthesised. The following colour code has been adopted.

Description	Colouring
Derived directly from observed data	Green
Synthesised based on origin – destination socio-economic characteristics and calibrated to observed data where available	Yellow

Table 20 - Contains a summary of the estimated existing volumes for key internal movements in Estonia by mode.

		Rail	Road (Car)	Road (Coach)	Total
Tallinn – Tartu	Passengers per day	299	3,305	1,119	4,724
	% mode share	6%	70%	24%	100%
Tallinn – Pärnu	Passengers per day	56	2,872	662	3,589
	% mode share	2%	80%	18%	100%

Table 21 - Contains a summary of the estimated existing volumes for key internal movements in Latvia by mode.

		Rail	Road (Car)	Road (Coach)	Total
Rīga – Jelgava	Passengers per day	3,166	7,234	1,191	11,592
	% mode share	27%	62%	10%	100%
Rīga – Daugavpils	Passengers per day	185	3,239	1,384	4,808
	% mode share	4%	67%	29%	100%
Rīga – Tukums	Passengers per day	758	2,828	394	3,980
	% mode share	19%	71%	10%	100%
Rīga Valmiera	Passengers per day	72	2,909	713	3,694
	% mode share	2%	79%	19%	100%

Table 22 - Contains a summary of the estimated existing volumes for key internal movements in Lithuania by mode.

		Rail	Road (Car)	Road (Coach)	Total
Kaunas – Vilnius	Passengers per day	2,740	14,586	2,784	20,110
	% mode share	14%	73%	14%	100%
Kaunas – Šiauliai	Passengers per day	112	2,936	579	3,626
	% mode share	3%	81%	16%	100%
Kaunas – Panevėžys	Passengers per day	0	3,308	718	4,026
	% mode share	0%	82%	18%	100%

The estimated existing volumes for key international routes are described in the section below. Table below contains a summary of the estimated existing volumes of international rail passengers.

Table 23 - Contains a summary of the estimated existing volumes for key internal movements in Lithuania by mode.

	Description	Passengers per day
E S T O N I A		
Tallinn – Riga	No international services run across the Estonian Latvian border	0
Tallinn – Kaunas	No international services run across the Estonian Latvian border	0
Tallinn – Vilnius	No international services run across the Estonian Latvian border	0
Tallinn – Warsaw	No international services run across the Estonian Latvian border	0
L A T V I A		
Riga – Tallinn	No international services run across the Latvian Estonian border	0
Riga – Vilnius	No international services run across the Latvian Lithuanian border	0
Riga – Kaunas	No international services run across the Latvian Lithuanian border	0
Riga – Warsaw	No international services run across the Latvian Lithuanian border	0
L I T H U A N I A		
Vilnius – Riga	No international services run across the Latvian Lithuanian border	0
Vilnius – Warsaw	Eurostat data indicated very low volumes of rail trips between Poland and Lithuania	14
Vilnius – Tallinn	No international services run across the Estonian Latvian border or the Latvian Lithuanian border	0
Kaunas – Riga	No international services run across the Latvian Lithuanian border	0
Kaunas – Warsaw	Eurostat data indicated very low volumes of rail trips between Poland and Lithuania	10
Kaunas – Tallinn	No international services run across the Estonian Latvian border or the Latvian Lithuanian border	0

The estimated existing volumes for key international routes are described in the section below. Table 24 - Estimated existing volumes of international rail passengers contains a summary of the estimated existing volumes of international rail passengers.

Table 24 - Estimated existing volumes of international rail passengers

	Description	Passengers per day
E S T O N I A		
Tallinn – Riga	No international services run across the Estonian Latvian Border	0
Tallinn – Kaunas	No international services run across the Estonian Latvian Border	0
Tallinn – Vilnius	No international services run across the Estonian Latvian Border	0
Tallinn – Warsaw	No international services run across the Estonian Latvian Border	0
L A T V I A		
Riga – Tallinn	No international services run across the Estonian Latvian Border	0
Riga – Vilnius	No international services run across the Estonian Lithuanian Border	0
Riga – Kaunas	No international services run across the Estonian Lithuanian Border	0
Riga – Warsaw	No international services run across the Estonian Lithuanian Border	0
L I T H U A N I A		
Vilnius – Riga	No international services run across the Latvian Lithuanian Border	0
Vilnius – Warsaw	Eurostat data indicated very low volumes of rail trips between Poland and Lithuania	14
Vilnius – Tallinn	No international services run across the Estonian Latvian Border	0
Kaunas – Riga	No international services run across the Latvian Lithuanian Border	0
Kaunas – Warsaw	Eurostat data indicated very low volumes of rail trips between Poland and Lithuania	10
Kaunas – Tallinn	No international services run across the Estonian Latvian Border	0

Table 25 - Contains a summary of the estimated existing volume of international passenger cars.

	Description	Vehicles AADT
E S T O N I A		
Tallinn – Riga	Calibrated from border crossing O-D surveys and counts.	1520
Tallinn – Kaunas	Calibrated from border crossing O-D surveys and counts.	60
Tallinn – Vilnius	Calibrated from border crossing O-D surveys and counts.	160
Tallinn - Warsaw	Calibrated from border crossing O-D surveys and counts.	30
L A T V I A		
Riga – Tallinn	Calibrated from border crossing O-D surveys and counts.	1520
Riga – Vilnius	Calibrated from border crossing O-D surveys and counts.	560
Riga – Kaunas	Calibrated from border crossing O-D surveys and counts.	340
Riga - Warsaw	Calibrated from border crossing O-D surveys and counts.	45
L I T H U A N I A		
Vilnius – Riga	Calibrated from border crossing O-D surveys and counts.	560
Vilnius – Warsaw	Calibrated from border crossing O-D surveys and counts.	80
Vilnius - Tallinn	Calibrated from border crossing O-D surveys and counts.	160
Kaunas – Riga	Calibrated from border crossing O-D surveys and counts.	340
Kaunas - Warsaw	Calibrated from border crossing O-D surveys and counts.	420
Kaunas - Tallinn	Calibrated from border crossing O-D surveys and counts.	60

Table 26 - Contains a summary of the estimated existing volume of international coach passengers.

	Description	Passengers per day
E S T O N I A		
Tallinn – Riga	Based on estimate derived from timetable information	320
Tallinn – Kaunas	Based on estimate derived from timetable information	8
Tallinn – Vilnius	Based on estimate derived from timetable information	40
Tallinn - Warsaw	Based on estimate derived from timetable information	2
L A T V I A		
Riga – Tallinn	Based on estimate derived from timetable information	320
Riga – Vilnius	Based on estimate derived from timetable information	300
Riga – Kaunas	Based on estimate derived from timetable information	120
Riga - Warsaw	Based on estimate derived from timetable information	6
L I T H U A N I A		
Vilnius – Riga	Based on estimate derived from timetable information	300
Vilnius – Warsaw	Based on estimate derived from timetable information	60
Vilnius – Tallinn	Based on estimate derived from timetable information	40
Kaunas – Riga	Based on estimate derived from timetable information	120
Kaunas - Warsaw	Based on estimate derived from timetable information	40
Kaunas - Tallinn	Based on estimate derived from timetable information	8

Table 27 - Contains a summary of the estimated existing volume of international air passengers.

	Description	Passengers per day
E S T O N I A		
Tallinn – Riga	From Tallinn Airport Statistics/ Riga Airport Statistics	430
Tallinn – Kaunas	From Tallinn Airport Statistics/ Lithuanian Airport Statistics	0
Tallinn – Vilnius	From Tallinn Airport Statistics/ Lithuanian Airport Statistics	220
Tallinn - Warsaw	From Tallinn Airport Statistics	100
L A T V I A		
Riga – Tallinn	From Tallinn Airport Statistics/ Riga Airport Statistics	430
Riga – Vilnius	From Riga Airport Statistics/ Lithuanian Airport Statistics	420
Riga – Kaunas	From Riga Airport Statistics/ Lithuanian Airport Statistics	70
Riga - Warsaw	From Riga Airport Statistics	100
L I T H U A N I A		
Vilnius – Riga	From Lithuanian Airport Statistics / Riga Airport Statistics	420
Vilnius – Warsaw	From Lithuanian Airport Statistics	120
Vilnius – Tallinn	From Lithuanian Airport Statistics / Tallinn Airport Statistics	220
Kaunas – Riga	From Lithuanian Airport Statistics / Riga Airport Statistics	70
Kaunas - Warsaw	From Lithuanian Airport Statistics	0
Kaunas - Tallinn	From Lithuanian Airport Statistics / Tallinn Airport Statistics	0

Table 28 - Contains a summary, by all modes, of international transport volumes for key international movements relating to the Rail Baltica scheme.

	Rail	Road (Car)	Road (Coach)	Air	Total
E S T O N I A					
Tallinn – Riga	0	1520	320	430	1,650
Tallinn – Kaunas	0	60	8	0	128
Tallinn – Vilnius	0	160	40	200	400
Tallinn - Warsaw	0	30	2	100	142
L A T V I A					
Riga – Tallinn	0	1520	320	430	1,650
Riga – Vilnius	0	560	300	420	1,680
Riga – Kaunas	0	340	120	70	770
Riga - Warsaw	0	45	6	100	186
L I T H U A N I A					
Vilnius – Riga	0	560	300	420	1,680
Vilnius – Warsaw	14	80	60	120	254
Vilnius – Tallinn	0	160	40	220	480
Kaunas – Riga	0	340	120	70	770
Kaunas - Warsaw	10	420	40	0	350
Kaunas - Tallinn	0	60	8	0	88

4.3.3 Existing Freight Demand

Destinations and Connectivity

Rail Baltica is designed to fill a gap on a North-South axis linking key destinations in the Baltic States of Estonia, Latvia and Lithuania into the European Union rail network in Poland. It is considered that to give the new railway the best chance of obtaining a positive business case the new route will be capable of carrying mixed traffic, including express passenger and a variety of freight trains.

The corridor will connect Tallinn, Riga or Jelgava, Kaunas and Warsaw. In terms of route option development this means in effect connecting Tallinn, Riga, Kaunas and Seštakai, the existing connection into the Polish rail network on the Lithuania / Polish

border. To maximise potential demand on the route it is important to consider how the route will serve/connect to other key cities, industrial areas, ports, etc. The main potential international destinations for freight via Rail Baltica are likely to be those shown on the map below. Analysis has been carried out using these as a starting point and eliminating origins / destinations where Rail Baltica either cannot provide competitive pricing or significant volumes which could use the line do not exist.

Figure 14 - Main potential international destinations for freight via Rail Baltica



Key Information Used in Determining the Number of Trains Required

The following key information has been used in determining the number of freight trains likely to run on Rail Baltica.

- What is the current situation
- Who will use the new line
- What is the anticipated growth in freight transport
- Potential journey times versus other modes
- Potential journey cost versus other modes
- Reliability of service

Likely Train or Logistics Companies that might use Rail Baltica

There are various rail freight operators or bigger logistics companies that might be interested in operating services along the Rail Baltica corridor and they include;

- Freight operator DB Schenker whose rail Division expects to spend €410m on fleet modernisation this year to support a large expansion plan throughout Europe
- Captrain Deutschland, owned by SNCF, is actively looking to expand across Europe.
- DSV Transport AS, DSV is a global supplier of transport and logistics services. Following the acquisition of ABX Logistics, in 2008, it has become one of the leading transport and logistics companies in Europe.
- Unieveem Eesti OÜ is an Estonian based logistics company.
- Contimer OÜ use various transport methods - maritime, road, rail - to satisfy the specific needs of each of our customers, resulting in improved efficiency costs and on time delivery through one central point of control.
- LDz Cargo Logistika Ltd. works in close collaboration with LDz Cargo Ltd., ports and terminals, to provide transport services for clients.
- Baltijas Ekspressis operates freight services and were the first licensed private sector rail freight company in Latvia.

- Lithuanian Railways (AB Lietuvos Geležinkeliai) moved 19,3 million tonnes of Oil products – (45,2 per cent of the total freight), and 9 million tonnes of fertilizers in 2009 together making up 66% of all the traffic. But container traffic is becoming the main trend in developing freight services due to its versatility. The Viking project of combined traffic has been running successfully and a total of 39.5 thousand containers (TEU) were carried on this award winning container train in 2009.
- Estonian Railways Ltd. (AS Eesti Raudtee) founded two new affiliates: AS EVR Infra and AS EVR Cargo and the latter provides rail freight services.
- CTL Logistics S.A. is the largest privately-owned logistics company in Poland operating in the area of rail transportation.
- PKP is the national railway company in Poland, both providing transport services and managing rail infrastructure.
- Rail Polska Sp. operates rail freight business in Poland.
- Freightliner Poland, mainly run bulk trains but operate container trains in the UK.
- TxCARGOSTAR is a German operator specialising in intermodal transport

Market Segments to Consider – Commodity Types

Rail traditionally offers benefits over road when there is a flow of a large volume between two fixed points over a reasonably long distance where the network is available. Hence the reason why the movement of coal, metals, petrochemicals and aggregates have been suited to rail. However one of the fastest growing markets in rail freight has been the movement of deep-sea containers bringing imports often from the Far East, and the intermodal movements of boxes and swapbodies. This latter sector is interesting in that several logistics integrators are combining goods from several companies on to trains.

We have examined the potential north – south rail flows using trade data and consulted with various companies and organisations. It is our view that the following represents the main flows of over 300,000 tonnes per annum

Table 29 - Main flows of over 300,000 tonnes per annum

O-D	Commodity	Tonnes
Finland - Germany	Paper	2,549,000
Latvia - Finland	Wood Products	1,257,000
Finland – Poland	Mineral Fuels & Oils	1,149,000
Finland – Germany	Wood Products	1,094,000
Lithuania - Latvia	Mineral Fuels & Oils	825,000
Lithuania - Estonia	Mineral Fuels & Oils	599,000
Lithuania - Finland	Wood Products	411,000
Finland - Poland	Paper	404,000
Germany - Finland	Iron & Steel	404,000
Finland - Germany	Mineral Fuels & Oils	347,000
Latvia - Germany	Wood Products	325,000
Poland - Lithuania	Food	305,000

(Tonnages have been estimated using trade data from the Finnish value per tonne for traffics which do not travel to/from Finland)

Those highlighted in orange could be containerised in future years. Increasing containerisation is a global trend and this will be input within the model when forecasting the structure of future demand.

In addition to the statistics gained, 3 trade associations have provided opinions of what type of traffics they see using the line. These were:

1. Timber and paper products – unanimous agreement
2. Goods currently carried by truck e.g. food – unanimous agreement
3. Trailers – unanimous agreement
4. Containers – one thought yes, one thought no, one unsure
5. Oil and Petrochemicals – mentioned by 1
6. Fertilizers – mentioned by 1

Based upon the available information it is thought Rail Baltica will most likely carry timber and paper products, food, containers and potentially some other products in lower volumes such as fertilizers, fuel and chemical products and manufactured goods.

Rail Baltica in being a new mixed railway is likely to attract a wide variety of commodities over time providing it is set up correctly. The range of products that could be handled and the type of wagons that would probably be used are listed in this section and include:

Current Inter Baltic Traffic

Some of the current rail traffic between Baltic States may shift due to decreased journey times on the new route. Traffic that is more likely to switch are time sensitive goods for example intermodal and post/parcels. This proportion is likely to be small for the reasons that most existing rail users are content with their current service and perhaps have their own dedicated rolling stock which they are unlikely to change in the short term. If companies have not been happy with the rail service they probably have already switched to road and it will be difficult to attract them back to rail.

Automotive Products (cars and cargo wagons)

With production of certain car models being centred in just one or two factories across Europe there is a significant number of movements of components, spare parts and finished cars to and from Central Europe. Much of this goes by road but it is believed there may be scope for more of this type of traffic by rail through from the production heartlands to the regional markets.

Agricultural Products (intermodal flats or cargo wagons or tanks or grainflow wagons)

There is a considerable volume of agricultural products using coastal shipping and more could move by rail. The movement of fertiliser is a well established trade by rail for example 9 million tonnes moved in 2009 in Lithuania but it is a low margin product and fluctuates with seasonal requirements. The new line could provide not only a wider potential catchment for fertiliser travels south but an enhanced ability to bring seasonal agricultural products that are grown in Central and Southern Europe such as fruit and vegetables north to the Baltic States. There are modern grain wagons running on several European railways and there could be potential for using these on the line. Apart from grain for human consumption there could be business in the movement of animal feedstuff.

Biomass (closed top hoppers)

Biomass is an emerging market and is unknown in terms of volume. As various sources can be used including wood chips, nut husks and various bi-products from food processing there is a potential rail market. It is understood that there is a need to use closed top wagons to keep the product dry. It is likely that this product will replace a proportion of the current coal movements to coal fired power stations. But as it is more bulky than mineral coal it may require more trains.

Construction Materials / Aggregates (hoppers)

There is a definitely potential for the aggregate market and many demolition projects generate large volumes of material to take away and then in the construction phase there are significant volumes of aggregates, cement, steel members and other material required. Assuming the building of the new line goes ahead there will be significant volumes of construction material required for this alone. When building the line materials such as aggregates and metals will be required. This should provide new work for existing business and much of this material could be brought to site by rail. In addition the building of a new line can create what is known as the "sparks" effect – where new facilities such as logistics parks and other businesses set up next the new line due to increased connectivity provided. For example in the UK when the East Coast Mainline was electrified and journey times improved, people moved to live near to the new line and all the major towns on the route grew, house prices doubled and new businesses came in along the route. The new railway represents a completely new facility to Latvia, Lithuania and Estonia (a through connection to Western Europe and a much quicker connection north-south between the 3 countries) therefore there is likely to be some level of induced demand.

Container Traffic (Deep-Sea) (intermodal flats)

There is a continuing growth in the use of Deep Sea Maritime Containers and as more products are imported/exported by this method there is an opportunity to create a network of terminals and services by rail feeding to/from the container ports. There is a need to understand the effect of Deep Sea movements and the interaction between intermodal and feeder vessels and how will this affect traffic migration. Increasing the number of transshipments increases the total costs of the whole operation. Coastal feeders do take boxes to Baltic ports where road vehicles often complete the final leg. But there could be potential for some urgent boxes to be transhipped at ports such as Rotterdam for onward movement to Germany, Poland and possibly some Baltic countries.

European Intermodal (intermodal flats)

There is strong agreement that this market is evolving and if sensibly nurtured will deliver good volumes in the future for the rail sector. However reliability is essential, seven day operation is important, quick journey times are valuable to at least match road and the availability of contingency plans should incidents happen is critical, such as the provision of alternative routes. Although this sector is being led by the integrators there are good opportunities for major retailers and manufacturers as well.

Express Parcels (swapbodies and cargo wagons)

The postal and parcel companies traditionally used rail but due to the need for urgent deliveries much of this market either goes by direct lorry or air freight. However rail could offer an express service for mail and parcels between key airports and European cities. Air France and DHL both have business models exploring the opportunity to link a European network of express freight by rail. This could replace some short-haul flights in Europe which would be better for the environment.

Food & Drink Production and Retailing (intermodal flats / swapbodies / cargo wagons)

There is a significant volume of freight movements associated with the food and drinks industry. This might include the imports of fresh produce from mainly Mediterranean countries of vegetables and fruits and some of this requires keeping at chilled or frozen temperatures. The potential for rail, could be significant and could supply National Distribution Centres of food retailers in the Baltic Countries. Produce is likely to come in cargo vans or chilled/freezer boxes.

Groupage (cargo wagons / swapbodies)

It is believed that an addressable market for rail is groupage – particularly less than full train loads that aren't time sensitive. This represents a significant market that has only been touched upon in previous works. There are various Pallet Networks which tend to have freight exchanges building up considerable volumes that then are moved on the main roads/motorways at night when there would be capacity on the rail network. A rail network of trunking between key European cities should be considered. For regular full-load and part-load services, intermodal services such as DHLs offers an alternative to road transport. Since fuel is less of a determining factor in the cost price, the price range for intermodal transportation is more stable. This means intermodal transportation isn't just an environmental alternative, but also an economical one, to pure road haulage.

Manufactured Goods (intermodal flats / cargo wagons / swapbodies)

There is potential for rail services to move manufactured and part processed goods. These either go for further manufacturing or to distribution centres for onward movement to retailers. Products can come in a range of sizes and hence could either go in containers, swapbodies of conventional wagons.

Metals (flats/steelers)

This is another traditional market for rail that could have some flows on the new line. There are various different types of steel, from fairly cheap grades for the mass market to specialist grades of steel. If less metal production happens in the Baltic states then potentially more flows will either arrive at ports for example imports from the Far East whilst potentially other metals could be exported to other European countries.

Minerals and Ore (hoppers)

It is important to not forget the movement of coal and iron ore which are still some of the biggest markets for rail and likely to continue to be. Although many coal movements are associated with the power generators there are still some industrial users. But the main flows of coal and minerals are still likely to remain on the east-west axis to/from Russia and hence are less likely to need large numbers of freight train paths on Rail Baltica.

Oil and Petrochemical Industry (tankers)

The movement of oil and chemicals between refineries and terminals where there is insufficient volume to justify a pipeline is an addressable market for rail. Oil is already the largest commodity moved by Lithuanian Railways and the introduction of a new railway line will certainly not reduce that but may in fact stimulate new opportunities in other countries. Similarly the movement of chemicals from production plants are suited to the use of rail. There could be significant interest in running rail tankers of

chemicals from Central Europe through to the Baltic States providing direct links can be made from Rail Baltica as this avoids the need to change wheels on the tank wagons. One of the best known private rail freight operators in Europe, Rail4chem, was set up in 2000 under the initiative of German chemical firm BASF to have better control over the chemical supply chain by rail. This company was successful in expanding the market and has more recently been bought by Veolia Cargo which has been incorporated into Captrain Deutschland, owned by SNCF.

Hazardous Goods

Rail Baltica would be suitable to carry hazardous goods in its various forms, liquid or dry bulk and in tanks, tanktainers or packaged goods in containers or in cargo wagons. For hazardous goods moving between Central Europe and the Baltic States the very fact that the train may not have to change gauge or be transhipped will be a very positive move in reducing the chance of a serious Health & Safety incident. This alone could attract new tonnage to the line.

Waste (hoppers)

There is an emerging understanding of recycling and how society wants to treat waste in the future. Instead of flows going to a convenient landfill site there are several differentiated flows including recyclates, reformed waste in combustible briquettes, specialist higher value waste and possibly the remainder destined to 'waste to energy' plants. These flows could be suitable to the rail market in the future.

Wood & Forest Products (flats / cargo wagons)

Wood and Forest products such as timber, paper and pulp are potentially a large market for Rail Baltica. The movement of logs, timber and paper from countries such as Finland are significant in volumes and although the movement by water on the Baltic Sea is cheap there are destinations in central Europe that cannot easily be reached by water. According to Eurostat information there was approximately 325,000 tonnes of forest products going by sea last year from Latvia to Germany and there is likely to be more of a potential market for products that travels to Central and southern Germany than the area near the ports in the north.

Potential Customers

We canvassed a range of logistics companies and freight forwarders to ascertain their views on Rail Baltica. In conducting this Market Research we used a number of techniques including telephone surveys and electronic mail. We made contact with over twenty companies in each of the following countries, Estonia, Finland, Latvia and Lithuania. Many companies responded even if it was to say they would not be interested in the prospective new railway, and in these cases the conversation ended there. Some companies said they would send responses but did not and were followed up, but in general the response rate was reasonable. The following section outlines the main responses by country and gives some information on the companies that expressed a view, even if it was a negative observation. It is important to draw realistic conclusions from the information collected.

Latvia

11 Latvian Freight Forwarders don't use rail and will not do so in the future. This is not necessarily saying that the Rail Baltica project is not required but merely suggesting that for many companies rail is not on the freight companies' agenda. However, three Latvian Freight Forwarders were more positive and had some positive comments:

- One forwarder operates several dry cargo terminals at the Riga Free Port, where they offer a stevedoring service for the receipt, storage and reloading of cargo. They also offer a processing, screening, crushing and magnetic clearing of steel coil and handle the transportation and Forwarding services of 5 million tonnes of coal per year to Russia. The company is comfortable with the current rail lines, and see the main potential for the proposed line as passenger orientated and the new line will be a key factor in ensuring the development of tourism.
- Another respondent was one of the leading retailers in food and fast moving consumer goods in Latvia, operating through different retail chains suiting different customers. They have established their own distribution centre that is the largest and most up-to-date distribution centre in the Baltic States. At the time of writing the company had 107 stores including 15 hypermarkets, and 92 other stores. The company does not currently use railway, as there is not a suitable rail route to meet the needs of the business. However they would be interested in Rail Baltica to transfer goods to or from Estonia, and Poland. The main operational factors the new line should offer are that it needs to be fast enough and have the capability to carry frozen food products in containers.
- A large plywood producer sited along the proposed railway route said that they have seen a decrease in incoming goods in 2009 due to the recession from around 700 wagons monthly to about 30 and they only take goods via road. However the company plans to sell around 190,000 tons of plywood in 2010 and has seen its production volumes return to the 2008 level with a 50% increase in turnover in the first six months of 2010 compared to 2009. The higher volumes may suit some movement by rail in the future.

There has been a recent trade conference proving that new cooperation between Latvia and the United States has much potential. Around 15,000 containers of U.S. freight have been shipped via Latvian ports in transit so far, representing food industry, construction, household appliance production and other sectors. It is possible that some of this transit traffic could go by rail depending on the destinations.

Lithuania

10 Lithuanian Freight Forwarders said they would not use Rail Baltica mainly as the majority of traffic is on the east-west axis and hence have no need of the line. However, 10 Lithuanian Freight Forwarders had more in-depth comments:

- One respondent was the official agent of the shipping line Hyundai Merchant Marine (HMM) in the Baltics offering cargo carrying services along the HMM line's routes. The main carriage directions are the Far and Middle East and North America. As this company only provides shipping services for Hyundai containers they would not have any real interest in transporting by rail in the future.
- Another respondent is a maritime agency that carries out various freight forwarding, shipping and other transportation and logistics services. The company provides transportation services for all types of marine, rail and road transport and has extensive experience in organizing transportation of sea containers. They were unable to provide an exact percentage of freight they move by rail but stated that they prefer to send by sea to the nearest port and use rail over a shorter distance. They do move freight to Tallinn, Warsaw, Belarus and Ukraine meaning they could utilise Rail Baltica for freight as it provides a direct connection to Tallinn and Warsaw and a connection to Belarus and Ukraine.
- Another respondent operates mainly by sea, road and air. They maintain a fleet of over 5,000 trucks on four continents and also have specialist air freight teams located across five continents constantly monitoring direct flights and offer freight consolidation, door-to-door and express traffic. They also offer port-to-port, door-to-door pick-ups and deliveries for FCL, LCL, groupage or breakbulk goods, plus Roll-On/Roll-Off services and complete logistics packages. Currently, 5% of their containers received by sea are forwarded via rail with 1% of their rail freight being transported to Kazakhstan. Rail Baltica would provide a transfer point to rail connections to Kazakhstan via Warsaw. Hellmann said that it is conceivable that Rail Baltica may allow them to extend their rail forwarding operation to Tallinn and Warsaw.
- Another shipping company said that they provide a number of services such as cargo clearance for freight arriving / leaving port by sea, ordering of railway and road transport as well as forwarding of cargo arriving by containers. This allows clients to collect cargo arriving by different types of transport for onward movement, and arranging "door-to-door" delivery to final destination. The types of cargo usually carried are frozen fish, frozen meat and poultry, fruits and general cargo. They move 10% of their freight by rail to such destinations as Belarus, Kazakhstan, Warsaw and Tallinn. They mainly move freight to the Ukraine by lorry as costs are too high to use rail. With the introduction of Rail Baltica it is possible that they may use rail to transport freight to the Ukraine in future, providing the costs are competitive.
- Another respondent was a merchant shipping company offering services that connect ports in the area of Baltic Sea, Mediterranean Sea, North Sea, Black Sea, Azov Sea and Atlantic Ocean. They are an independent freight forwarding company based in Lithuania offering cost effective sea, road, railway and air freight forwarding services around the world and are capable of delivering any cargo to any port including offshore operation. They already transport 100% of their freight to such destinations as Latvia (Liepaja), Belarus and Russia by rail. Rail Baltica would improve connections to their current destinations and provide additional interchange points.
- Another company specialises in railway transportation to and from the Baltic States and CIS, with 100% of their freight being transported between Klaipeda and Russia goes by rail. They are interested in extending their operation to include transporting heavy cargo from Germany and Poland which would be possible using Rail Baltica.
- Another respondent is a freight forwarder who guarantees a high quality service. They currently transport the majority, between 80% and 100%, of their freight via rail. They specialise in transporting frozen products to Kyrgyzstan and Kazakhstan. The speed and efficiency with which goods can be transported to Kyrgyzstan and Kazakhstan could be greatly improved with the Rail Baltica link to connecting railway.
- One of the leading companies in the Baltic states dealing with shipping agency services, brokerage, freight forwarding and transportation said that they have long-term experience in transporting various goods from the USA, Greece, the Netherlands, France, Germany, Russia and many other countries. They currently transport 50% of their cargo via rail. They would be interested in increasing the proportion of freight they move by rail by using Rail Baltica but it would depend on how competitively priced the service will be.

- One of the largest cargo carriers and forwarding companies in Lithuania providing logistics services for cargo movement in Western, Eastern and Central Europe, Scandinavia, Poland, other Baltic and CIS countries and within Lithuania itself said that they transport reefer cargo, metals, fertilizers, timber and bulk products as well as cargo with special requirements in terms of temperature, packaging, etc. They deliver cargo "door to door" by combining transportation by sea, by land and by air. They are interested in increasing the amount of freight they move by rail and would be very interested in using Rail Baltica in the future to achieve this. They believe it would help to increase the amount of liquid cargo that they transport across Europe due to the easy link provided by Rail Baltica as it will decrease the time taken to transport goods from Poland to the Baltic region by negating the need to change wheels between rail gauges.
- An international logistics and maritime service provider specialising in door-to-door transports of FCL, LCL, project and break bulk cargoes from/to overseas destinations with special focus on the Asia CIS trade said that they receive 30% of the freight from Europe and 50% from China and send more than 50% of their freight by rail. They think, however, that this new rail line will not provide significant competition to marine transportation services due to cheap sea tariffs for containers but may be competitive against road in transporting goods in cargo wagons.

Estonia

9 Freight Forwarders said they would not use Rail Baltica mainly as they were mainly in sea transport only or their traffic is on the east-west axis and hence have no need of the line. 6 Estonian Freight Forwarders had more in-depth comments:

- A negative view from a director of a freight forwarding company was "Rail rates are always twice as expensive as maritime rates. When you have an international "transit" journey you have several countries, all of whom have different tariffs, taxes and each will want to earn money, or one combined company that will serve the whole line will want to quickly recover the investment and the tariffs are likely to be too high and our children will have to repay debts! The only ones who can send their goods along the new rail to Latvia and Estonia are the Poles, and this will be in small quantities. Poland also has a port through which it is more profitable to send the cargo to Latvia and Estonia."
- A port agency providing freight forwarding services in all Baltic ports said that they currently move all their freight by road but would be interested in moving loads, such as peat, wood and wooden houses, by rail in future. Rail Baltica could aid them in doing this, if it is priced competitively to compete with road transport.
- A company providing worldwide door-to-door freight transportation services across Europe, Russia, C.I.S. and the Baltic States said that they provide freight forwarding services using rail, road, air and marine transport. Of these modes they use rail to transport 50% of their freight and this is only to Russia currently. They would be interested in expanding their operations to other areas and in using Rail Baltica to do this, though how much of their trade they would be able to transfer to rail would depend on their clients.
- Another respondent was an independent provider of port agency and shipbroking services across the international shipping markets providing the full scope of liner shipping agency services for container, general cargo, ro-ro and passenger lines. They currently move their freight by sea but would be interested in moving a proportion of this, possibly 5000 tons / month, by rail in the future using Rail Baltica if it was competitively priced.
- Another respondent's main activity is sea transport management which includes: full ship's management, shipping, chartering, technical supervision, carrying out technical inspections on ships and brokerage. They do not currently use rail to transport goods but are interested in Rail Baltica for future operations. They currently move 1000 tons/month of frozen foods which could potentially be moved by rail.
- A well known shipper dealing mainly in containers, but also general cargo said that some of their freight is carried by rail. They move 20-40 containers / month and approximately 500 tonnes of general cargo, including various non hazardous goods amounting to approximately 1000 tons per month. The traffic flows to the Baltic states are mainly to/from Germany, Holland, Italy, Belgium and France. The following items would be the main requirements for them to use the new line, good price, short transit-time, and ready availability of rail platforms / wagons. The journey time is now spread over several days and it is acceptable to have a 5-10 day journey depending on destination / origin. To start with a weekly service frequency from the main origins would be acceptable. The level of reliability would need to have a performance of about 95% of trains arriving within 15 minutes of the planned time. There are two main reasons why they might not use the line firstly if the freight booked needed to be carried on the East – West axis and not North – South and secondly it depends on rates. They are happy with current modes of transport but lower prices would entice them to change. The key factors to ensure that the line attracts new traffic are; competitive rates, service reliability, good transit-time, availability of terminals, containers and wagons.

Finland

18 Freight Forwarders said they would not use Rail Baltica as they were mainly in sea or road transport only or their traffic is on the east-west axis from Finland to Russia and hence have no need of the line and did not contribute further to the survey. There were a number of companies that did comment about Rail Baltica;

- An independent Finnish freight forwarding and transportation company moving regular road-traffic to / from all European and Baltic countries said that they offer access to a range air, sea and railway transportation, customs clearances, distribution and logistical services. Significantly they have subsidiaries in the following countries: Estonia, Latvia, Lithuania, Poland and Hungary, which closely mirrors the route of Rail Baltica. The group has been expanding their Latvian operations and built a logistics centre in the town of Marupe in Latvia in 2007. Currently they carry all kinds of goods from Hungary to Finland, but only via road, would use rail if there would be railway line going through Poland. Main potential is the transfer of wood all over the world. A key factor in whether the line is successful is in providing a tracking service on the goods/wagons so there is visibility as to the location of the products at any time.
- A Finnish third party logistics company operating in international logistics, warehousing, supply chain management and forwarding services said that they carry any kind of goods, mainly from the Far East to Finland and Finnish exports are electronics, metal, paper and forest products. They use rail but for less than 5% of their freight. The new line must be competitive to road, and offer similar or better timings. They see high potential for this line and would like through services to run at least 2 or 3 times a week, from Finland to Poland.
- A well known third party logistics operator carries all kind of goods to Finland, but not via rail. However their European arm does offer services when customers need to move single wagons, wagon groups or complete trains across Europe from siding to siding or door to door. The main potential for the line is for the transfer of goods all over the Europe, for every type of goods. A key factor is in offering a tracking service. Their European rail division can offer a "Track and trace" service throughout the whole transport chain and they can also offer ADR capabilities for the movement of hazardous goods. Their intermodal division concentrates on putting high payloads into various compatible loading units, be it a container, a swap body or semi-trailer. The loading unit itself is compatible with all road, rail and ocean transport.
- An international shipping and logistics company said that they offer a wide range of logistics solutions both in Northern Europe and worldwide. They carry anything from electrical goods to machinery, worldwide. They move, more by sea and air, and rail is less than 10% of volumes. However they think that Rail Baltica could be a good solution and would use rail if and when they have specific cargo needing that route.
- A Finnish agency carrying different exhibition goods said that they currently only use road, air, and sea as they think that rail is more expensive than road. However they consider there could be potential for new line for companies from Finland.
- A Container Terminal operator said that they think that rail is more expensive and pricing would have to be competitive to attract customers to Rail Baltica.
- A Freight Forwarding/Port Operator said that they currently move about 50.000 – 100.000 tonnes of electronic, industrial and forest products per year from Finland to Poland and Germany via Tallinn. So there is a possibility of moving containers, and paper and board in normal cargo wagons on the line. As a price indication for a round trip from Tallinn to the Southern part of Poland it costs 800 euros per 40' container. The current journey times between Finland and key destinations are; to the southern part of Poland is 4 days, and to Germany depending on the location varies from 5 days to 7 days. They said that good reliability is important where 95% of trains arrive within 15 minutes of the planned time. According to this company the key factors in ensuring that the line attracts new traffic are that Continental gauge is a must, and frequent services are wanted with a frequency of at least twice a week to different destinations. They also suggested that there should be a network of terminals to allow the possibility of reloading and backloading.
- An international transport and forwarding company located in Lahtio offering transport, customs clearance services said that they offer road, air and sea transport and have services between Italy-Finland and Spain-Finland. They carry kitchen appliances, furniture, olive oil, and wine and only use trucks from Italy and Spain to Finland as they believe rail is too slow. A new railway that offers faster journey times would potentially be of interest but would have to offer something new.

The Finnish Transport Agency, Liikennevirasto is a government agency responsible for Finnish land and sea transport network infrastructure. The Agency was created combining parts of Finnish Maritime, Road and Railway Administrations. We have received a personal view on the potential for freight traffic to use the Rail Baltica line.

They stated that on the map Rail Baltica looks interesting; it could be an alternative for the usual transport routes by sea to the established terminals on the south coast of the Baltic sea (Kiel, Lubeck, Travemunde, Rostock). The export industry have expressed their interest in principle, but in practical terms it could prove difficult to convince freight forwarders to shift the transports to Rail Baltica as the present routes are well established and previous investments in infrastructure, in dedicated slots, in handling equipment, in terminals on the continent guarantee a service level which is accepted by both the customers and the export industry.

Routing the export goods via Tallinn requires a crossing of the Gulf of Finland which may add an extra loading procedure. These comments are valid for the main export streams from Finland to Western and Central Europe. Export volumes to the Baltic markets themselves are thought to be too small for regular train services.

Looking for future prospects and to use the advantage of transports on broad gauge (no reloading), the markets in the south-east of Europe offer worthwhile potential to develop. This is also a route to avoid the congested areas of central Europe. However customers have to bear in mind that as they leave the EU the experience is that they are confronted with problems of an administrative nature. Trials made by rail, have not worked out well.

The main export ports in South of Finland are Kotka/Hamina, Hanko and Rauma. They all have daily services to the mentioned ports in the southern part of the Baltic. These regular shipping services cover the distance in less than 48 hours. The fastest Ferries (Hanko) do it in less than 24 hours in the summer time. Ships leave normally in the afternoon. Export goods from the papermills are fed on a regular and continuous basis by lorries to the port warehouses (Rauma is serviced by train).

They stated that they do not see Riga as a feeding port for goods to be transported along RB. In the east-west transports all the Baltic ports (Kaliningrad, Klaipeda, Ventspils, Riga, Tallinn) have been actively offering rail services.

The main export products suitable for rail transportation (paper, board, steel) are delivered to the consumers in a seamless logistics chain minimizing stocks, therefore reliability is most important. How it is defined is a contract matter varying from customer to customer.

As to what time of day services would be required to run i.e. would night-time only work, or 16 hours per day or more required it depends on how the service between Finnish ports and Tallinn will be organized and how the logistics chain to the consumer will be worked out.

Planning of inland hubs should take into consideration how the expected crossing traffic is planned to be developed. In the Baltic area the connections are to the south-east Europe, in Poland and Germany the connections are to central Europe.

4.3.4 Freight Demand Matrices

The following tables give the total volumes of freight, both bulk and non-bulk in the base year of 2008.

Table 30 - Bulk Freight

Road	Latvia Total	Riga Region	Kurzeme Region	Latgale Region	Zemgale Region	Vidzeme Region	Riga City	Lithuania Total	Vilnius city municipa- lity	Kaunas city municipa- lity	Klaipėda city municipa- lity	Panevėžys city municipa- lity	Šiauliai city municipa- lity	Alytus city municipa- lity	Telsiai	Taurage	Marjampole	Utena	Estonia Total	Põhja- Eesti	Lääne- Eesti	Kesk- Eesti	Kõrde- Eesti	Lõuna- Eesti	Finland	Germany	Poland	Austria	Northwe- stern economi- c region of Russia	Czech Republic	Ukraine	Belarus	Italy	Hungary		
Latvia Total	36453	6080	7993	4207	6443	4557	7173	305	39	51	83		131						210	87	20	38	20	44	21	196	152		514	6						
Riga Region	6361	1061	1395	734	1124	795	1252	8	1	1	2		3																							
Kurzeme Region	7331	1223	1607	846	1296	916	1443	61	8	10	17		26																							
Latgale Region	3896	650	854	450	689	487	767	8	1	1	2		4						150	63	14	28	15	31												
Zemgale Region	5429	906	1190	627	960	679	1068	16	2	3	4		7																							
Vidzeme Region	4402	734	965	508	778	550	866	13	2	2	4		6						59	25	6	11	6	12												
Riga City	9035	1507	1981	1043	1597	1129	1778	198	26	33	54		85														150									
Lithuania Total	420	20	104	53	50	18	175	28094	6356	5844	4152	2200	2808	1493	1883	777	1117	1463	66	39				28	239	348	283		600							
Vilnius city municipality	87	4	21	11	10	4	36	6917	1565	1439	1022	542	691	368	464	191	275	360	44	26				18				165								
Kaunas city municipality	107	5	26	13	13	5	44	5276	1194	1098	780	413	527	280	354	146	210	275	22	13				9				118								
Klaipėda city municipality	116	5	29	15	14	5	48	4168	943	867	616	326	417	221	279	115	166	217																		
Panevėžys city municipality	50	2	12	6	6	2	21	2452	555	510	362	192	245	130	164	68	98	128																		
Šiauliai city municipality	60	3	15	8	7	3	25	2495	565	519	369	195	249	133	167	69	99	130																		
Alytus city municipality								1445	327	300	213	113	144	77	97	40	57	75																		
Telsiai								1638	371	341	242	128	164	87	110	45	65	85																		
Taurage								857	194	178	127	67	86	46	57	24	34	45																		
Marjampole								1367	309	284	202	107	137	73	92	38	54	71																		
Utena								1480	335	308	219	116	148	79	99	41	59	77																		
Estonia Total	289	227				62		92	20	71									22905	7958	2724	8094	2475	1655	156	62			323	3						
Põhja-Eesti	142	112				30		45	10	35									7834	2722	931	2768	846	566				100								
Lääne-Eesti																			3233	1123	384	1142	349	234												
Kesk-Eesti	23	18				5		7	2	6									7783	2704	926	2750	841	562												
Kõrde-Eesti																			2754	957	328	973	298	199												
Lõuna-Eesti	124	98				26		39	9	31									1301	452	155	460	141	94												
Finland	26							16											210						158432	25	114	2	290	11						
Germany	243							317											103						15		7592		1							
Poland	83							268	108	160									18						111	7796	651725		1092	614				83		
Austria	16							19											14						1	2367	443	2	1	903					83	
NW economic region of Russia																																				
	105							75											189							504	1	132			27					
Czech Republic	19							57																	12	978	1398		51							
Ukraine	6							5																												
Belarus	42							30																												
Hungary	2							17																												
Italy	2							15																												

Sea	Latvia Total	Riga Region	Kurzeme Region	Latgale Region	Zemgale Region	Vidzeme Region	Riga City	Lithuania Total	Vilnius city municipa- lity	Kaunas city municipa- lity	Klaipėda city municipa- lity	Panevėžys city municipa- lity	Šauliai city municipa- lity	Alytus city municipa- lity	Telsiai	Taurage	Marijampole	Utena	Estonia Total	Põhja- Eesti	Lääne- Eesti	Kesk- Eesti	Kirde- Eesti	Lõuna- Eesti	Finland	Germany	Poland	Austria	Northwe- stern econom- ic region of Russia	Czech Republic	Ukraine	Belarus	Italy	Hungary
Latvia Total								3			3								73	73					2394	3856	17		7				230	
Riga Region																																		
Kurzeme Region								3			3								15	15					717	895	6		6				82	
Latgale Region																																		
Zemgale Region																																		
Vidzeme Region																																		
Riga City																			58	58					1677	2961	11		1				148	
Lithuania Total	97		97																1	1					341	607	87		27				23	
Vilnius city municipality																																		
Kaunas city municipality																																		
Klaipėda city municipality			97																1	1					341	607	87		27				23	
Panevėžys city munitdality																																		
Šauliai city municipality																																		
Alytus city municipality																																		
Telsiai																																		
Taurage																																		
Marijampole																																		
Utena																																		
Estonia Total	32		7				25																		3003	676								
Põhja-Eesti	32		7				25																		2244	572								
Lääne-Eesti																									311	76								
Kesk-Eesti																									448	28								
Kirde-Eesti																																		
Lõuna-Eesti																																		
Finland	207		170				37	64			64								2151	2090		11	50			3245	244						809	
Germany	102		69				33	144			144								211	166		34	11			1456				289				
Poland	10						10	166			166								6	6					294									
Austria																																		
Northwestern economic region of Russia	99		6				93	29			29																							
Czech Republic																																		
Ukraine																																		
Belarus																																		
Hungary																																		
Italy																																		

Current Rail	Latvia Total	Riga Region	Kurzeme Region	Latgale Region	Zemgale Region	Vidzeme Region	Riga City	Lithuania Total	Vilnius city municipa lity	Kaunas city municipa lity	Klaipėda city municipa lity	Panevėžys city municipa lity	Šiauliai city municipa lity	Alytus city municipa lity	Telsiai	Taurage	Marijamp ole	Utena	Estonia Total	Põhjo- Eesti	Lääne- Eesti	Kesk- Eesti	Kirde- Eesti	Lõuna- Eesti	Finland	Germany	Poland	Austria	Northwe stern economi c region of Russia	Czech Republic	Ukraine	Belarus	Italy	Hungary	
Latvia Total	23				12	11		426		426									156	156															
Riga Region								426		426										156	156														
Kurzeme Region																																			
Latgale Region																																			
Zemgale Region																																			
Vidzeme Region	11					11																													
Riga City	12				12																														
Lithuania Total	458	458						403				12		391														358							
Vilnius city municipality																												358							
Kaunas city municipality	458	458																										358							
Klaipėda city municipality																																			
Panevėžys city municipality								391						391																					
Šiauliai city municipality																																			
Alytus city municipality								12				12																							
Telsiai																																			
Taurage																																			
Marijampole																																			
Utena																																			
Estonia Total	57	57																	379	189					190	18									
Põhjo-Eesti	57	57																	190						190	18									
Lääne-Eesti																																			
Kesk-Eesti																																			
Kirde-Eesti																																			
Lõuna-Eesti																			189	189															
Finland																																			
Germany																												9							
Poland								91		91																	25								
Austria																																			
Northwestern economic region of Russia																																			
Czech Republic																																			
Ukraine																																			
Belarus																																			
Hungary																																			
Italy																													25						

Table 31 - Non Bulk Freight

Road	Latvia Total	Riga Region	Kurzeme Region	Latgale Region	Zemgale Region	Vidzeme Region	Riga City	Lithuania Total	Vilnius city municipal- ity	Kaunas city municipal- ity	Klaipėda city municipal- ity	Panevėžys city municipal- ity	Šiauliai city municipal- ity	Alytus city municipal- ity	Telsiai	Taurage	Marijampole	Utena	Estonia Total	Põhja- Eesti	Lääne- Eesti	Kesk-Eesti	Kirde- Eesti	Lõuna- Eesti	Finland	Germany	Poland	Austria	Northwest economic region of Russia	Czech Republic	Ukraine	Belarus	Italy	Hungary	
Latvia Total	13775	2298	3020	1590	2434	1722	2711	153	20	26	42			66					100	42	9	18	10	21	21	137	66		224	2					
Riga Region	2404	401	527	277	425	300	473	4	0	1	1			2																					
Kurzeme Region	2770	462	607	320	490	346	545	31	4	5	8			13																					
Latgale Region	1472	246	323	170	260	184	290	4	1	1	1			2					72	30	7	13	7	15											
Zemgale Region	2051	342	450	237	363	256	404	8	1	1	2			3																					
Vidzeme Region	1663	277	365	192	294	208	327	7	1	1	2			3					28	12	3	5	3	6											
Riga City	3414	569	749	394	603	427	672	100	13	17	27			43													65								
Lithuania Total	258	12	64	32	31	11	107	22188	5020	4616	3279	1738	2218	1179	1487	614	883	1155	50	29				21	367	375	196		417					5	
Vilnius city municipality	53	2	13	7	6	2	22	5463	1236	1136	807	428	546	290	366	151	217	284	33	19				14			114								
Kaunas city municipality	66	3	16	8	8	3	27	4167	943	867	616	326	417	221	279	115	166	217	17	10				7			82								
Klaipėda city municipality	71	3	18	9	9	3	30	3292	745	685	487	258	329	175	221	91	131	171																	
Panevėžys city municipality	31	1	8	4	4	1	13	1936	438	403	286	152	194	103	130	54	77	101																	
Šiauliai city municipality	37	2	9	5	4	2	15	1971	446	410	291	154	197	105	132	55	78	103																	
Alytus city municipality								1141	258	237	169	89	114	61	76	32	45	59																	
Telsiai								1293	293	269	191	101	129	69	87	36	51	67																	
Taurage								677	153	141	100	53	68	36	45	19	27	35																	
Marijampole								1080	244	225	160	85	108	57	72	30	43	56																	
Utena								1169	264	243	173	92	117	62	78	32	46	61																	
Estonia Total	159	125				34		65	15	51									15587	5416	1853	5507	1684	1126	216	60	62		202	2					
Põhja-Eesti	78	61				17		32	7	25									5331	1852	634	1884	576	385			62								
Lääne-Eesti																			2200	764	262	777	238	159											
Kesk-Eesti	13	10				3		5	1	4									5296	1840	630	1871	572	383											
Kirde-Eesti																			1874	651	223	662	203	135											
Lõuna-Eesti	68	54				15		28	6	22									886	308	105	313	96	64											
Finland	18							13											171						261035	28	84	2	215	8				5	
Germany	163							272											84							26	5728		0						
Poland	42							177	71	106									12						143	7061	377369		633	355				48	
PL1								75	30	44																		75090							
PL2																													79782			241			
PL3								87	35	52																			64086						
PL4																														60328					
PL5																														41847			114		
PL6								16	6	10																			56235						
Austria	10							17												11						3	3958	334	4	1	681			626	
NW economic region of Russia																																			
	54							49											120						649	0	76				15				
Czech Republic	9							38																	15	886	809		29						
Ukraine	3							3											8									52							
Belarus	21							20											2																
Hungary	1							11											9																
Italy	1							13											16																

Sea	Latvia Total	Riga Region	Kurzeme Region	Latgale Region	Zemgale Region	Vidzeme Region	Riga City	Lithuania Total	Vilnius city municipal ity	Kaunas city municipal ity	Klaipēda city municipal ity	Panevėžys city municipal ity	Šiauliai city municipal ity	Alytus city municipal ity	Telsiai	Tauragė	Marjampole	Utena	Estonia Total	Põhja-Eesti	Lääne-Eesti	Kesk-Eesti	Kõrde-Eesti	Lõuna-Eesti	Finland	Germany	Poland	Austria	Northwestern economic region of Russia	Czech Republic	Ukraine	Belarus	Italy	Hungary
Latvia Total																									61	1031	17		1					
Riga Region																																		
Kurzeme Region																											387	6		1				
Latgale Region																																		
Zemgale Region																																		
Vidzeme Region																																		
Riga City																									61	644	11							
Lithuania Total	13						13													5	5						474	87						
Vilnius city municipality																																		
Kaunas city municipality																																		
Klaipēda city municipality	13						13													5	5						474	87						
Panevėžys city municipality																																		
Šiauliai city municipality																																		
Alytus city municipality																																		
Telsiai																																		
Tauragė																																		
Marjampole																																		
Utena																																		
Estonia Total	4						4	18			18															108	248							
Põhja-Eesti	4						4	18			18															108	248							
Lääne-Eesti																																		
Kesk-Eesti																																		
Kõrde-Eesti																																		
Lõuna-Eesti																																		
Finland	78		9				69	98			98									145	145						6601	244						
Germany	1157		294				863	993			993									524	524					6167				6392				
Poland	10						10	166			166									6	6					294								
PL1																																		
PL2																																		
PL3																																		
PL4																																		
PL5																																		
PL6																																		
Austria																																		
Northwestern economic region of Russia	8		7				1	5			5																3200							
Czech Republic																																		
Ukraine																																		
Belarus																																		
Hungary																																		
Italy																																		

Current Rail	Latvia Total	Riga Region	Kurzeme Region	Latgale Region	Žemgale Region	Vidzeme Region	Riga City	Lithuania Total	Vilnius city municipal ity	Kaunas city municipal ity	Klaipėda city municipal ity	Panevėžys city municipal ity	Šiauliai city municipal ity	Alytus city municipal ity	Telsiai	Taurage	Marjampole	Utena	Estonia Total	Põhja- Eesti	Lääne- Eesti	Kesk-Eesti	Kõrde- Eesti	Lõuna- Eesti	Finland	Germany	Poland	Austria	Northwes- tern economic region of Russia	Czech Republic	Ukraine	Belarus	Italy	Hungary
Latvia Total	6				3	3		107		107									39	39														
Riga Region								107		107									39	39														
Kurzeme Region																																		
Latgale Region																																		
Žemgale Region	3					3																												
Vidzeme Region	3				3																													
Riga City																																		
Lithuania Total	114	114						101				3		98														89						
Vilnius city municipality																																		
Kaunas city municipality	114	114																										89						
Klaipėda city municipality																																		
Panevėžys city municipality								98						98																				
Šiauliai city municipality																																		
Alytus city municipality								3				3																						
Telsiai																																		
Taurage																																		
Marjampole																																		
Utena																																		
Estonia Total	14	14																	95	47					47	4								
Põhja-Eesti	14	14																	47						47	4								
Lääne-Eesti																																		
Kesk-Eesti																																		
Kõrde-Eesti																																		
Lõuna-Eesti																			47	47														
Finland																																		
Germany																												2						
Poland								23		23																	6							
PL1																																		
PL2																																		
PL3																																		
PL4																																		
PL5																																		
PL6																																		
Austria																																		
Northwestern economic region of Russia																																		
Czech Republic																																		
Ukraine																																		
Belarus																																		
Hungary																																		
Italy																												6						

4.4 Prognosis of Traffic Flows

The following section presents the approach to modelling both passenger and freight flows for the new line. The modelling approach for passenger flows is presented first, followed by the modelling approach for freight flows.

4.4.1 Passenger Flows

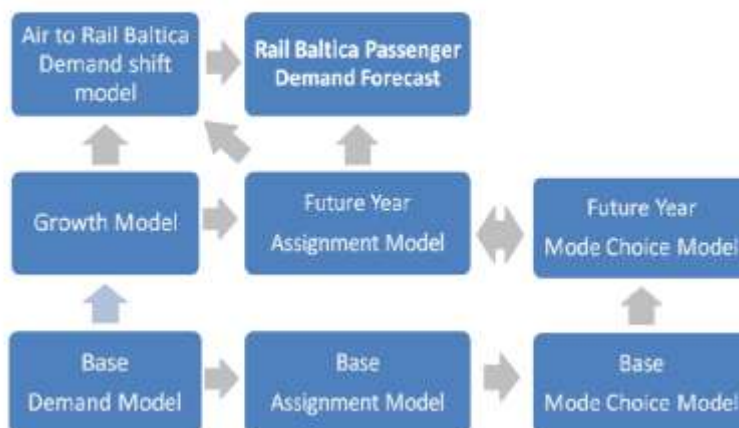
A common approach to forecasting changes in rail demand following changes in service provision or pricing is through the application of simple elasticities. This approach can provide a useful starting point for when there is an existing rail service and can reduce the need for more complex transport modelling. Within the Baltic States however there is only a very limited existing rail service across national borders, which means there is no existing rail demand to forecast forward from. Internal to each country although there are existing rail services the proposed high speed Rail Baltica service is likely to provide a "step change" in level of service which means that the simple elasticity approach will only provide part of the answer.

The main component of potential demand for Rail Baltica is transfer from existing competing modes such as Road, Coach and Air and therefore a modelling approach which captures the transfer from other modes is required.

A modelling suite has been developed that represents both the existing base year demand by different modes as well as the generalised cost (in terms of wait time, travel time, fares and vehicle operating costs) of making journeys by these modes. Based on these base year costs a mode choice model has been developed and calibrated to reflect the split between modes on existing movements. This modelling base provides, along with an estimation of trip growth, a tool to assess how mode shares for all modes will alter in future when Rail Baltica becomes an option for travellers. A key strength of this approach is that the forecasts of Rail Baltica patronage is driven not from the very small number of exiting international trips, but from an calculation of the proportion of the existing rail, air, bus and car trips that will shift to Rail Baltica.

Figure 15 - Modelling approach below summarises the modelling approach

Figure 15 - Modelling approach



Base Passenger Model Construction

The base year demand model contains average daily trip volumes in 2009 for the following modes:

- Air trips
- Car trips
- Bus trips
- Rail Trips
- Sea Trips

The demand is held in origin destination matrices with a zone system consistent with the assignment model. The demand populating the model has been derived in two key methods:

1. Based on the existing observed (2009) demand for travel between key origin / destination pairs within the study collated from the data sources described in the Existing Demand Section
2. Calculated within a synthetic demand model (from origin and destination socioeconomic characteristics and journey generalised costs) which has been calibrated, where data is available to observed data sets described in Existing Demand Section

Method 1 has been used in preference to method 2, and where data exists as it provides a more reliable picture of base demand. In most cases international base year demand has been derived using method 1 and can be directly traced back to observed trip volumes. There was, however, more limited data for car, rail and bus trips within the states. It has therefore been necessary to use the synthetic demand model, which has been calibrated to observed data where it is available, to 'infill' unobserved volumes.

The synthetic demand model is described in further detail below.

Synthetic Demand Model

The synthetic demand model is a spreadsheet based model which assesses the following elements to define base year demand, by mode, between origin and destinations within the region:

- Trip Generation,
- Trip Distribution
- Mode Choice

Each of the model elements is described in further detail below. An independent model has been produced for each Baltic state, synthesising the demand by model between key cities in each state. All three models are based on a common set of model parameters which have been calibrated to ensure the synthetic demand reflects observed demand for movements where observed data is available.

Trip Generation

Trip generation is calculated on the basis of population and gross value added (GVA) data at the trip origin and destination. These data are combined so that the volume of production / attraction trips to any zone in the model is related to the population of a zone together with its productivity. The formulation for each zone is as follows:

$$\begin{aligned} A_i O_i &= a_{Pop} Pop_i + a_{GVA} GVA_i \text{ and} \\ B_j D_j &= b_{Pop} Pop_j + b_{GVA} GVA_j \end{aligned}$$

Where

$A_i O_i$ is the trip production factor for origin i ; $B_j D_j$ is the trip attraction factor for destination j ;

aPop is the trip production population coefficient; bPop is the trip attraction population coefficient;
aGVA is the trip production GVA coefficient; bGVA is the trip attraction GVA coefficient;
Pop_i is the population of origin i and GVA_i is the GVA of zone i.

Trip Distribution

Generalised costs have been calculated for all modes (rail, road(car), road(coach), air).

Generalised cost is a function of all elements of a journey (access time (AT), wait time (WT), journey time (JT), fare, vehicle operating cost (VoC), and egress time (ET)) and is represented in units of time. Value of time (VoT) is therefore a key input as this links the value of monetary costs to the value of time savings. Generalised cost (GC) is given by:

$$GC_{ij} = (AT_i + WT_i * \text{wait time weighting} + JT_{ij} + ET_j) + (Fare_{ij} + VoC_{ij}) / (VoT/60)$$

The elements of Generalised cost are described in detail later in this section. A composite generalised cost has been calculated across all modes.

The total demand for each zone – zone movement is calculated by multiplying its composite generalised cost by A_iO_i and B_jD_j. As the generalised cost of trips from an origin varies by the destination, the number of trips from each origin will vary by destination. The model structure is such that the demand generated for trips from an origin with a higher generalised cost (for example a longer journey time, or a higher fare) will be lower than the demand generated for trips with a lower generalised cost.

Mode Choice

The mode choice model applied within the synthetic demand model has the same structure and parameters as the mode choice model used for the wider demand forecasting, and described further in the following sections.

The mode shares calculated from the mode choice model have been multiplied by the total demand calculated through the trip distribution process to produce a matrix of demand for each mode.

Model Calibration

The synthetic demand model has been calibrated to ensure that the output mode matrices reflect observed trip data for key movements taken from the base demand model, both in terms of total demand, and demand by mode.

Table 32 - Key routes used for calibration

Model	Calibration Movements
Estonia	Tallinn – Tartu, Tallinn - Parnu
Latvia	Riga – Jelgava, Riga – Valmiera, Riga - Tukums
Lithuania	Kaunas – Vilnius, Kaunas - Siauliai

Calibration has been applied to match overall volumes on the key routes as well as the mode split between car, coach and rail modes. Calibration has been achieved by changing the production and attraction parameters (described in the trip generation section above) to produce the closest overall match between observed and modelled demand for the key movements. The parameter values have been kept consistent between all versions of the synthetic demand model.

Assignment Model

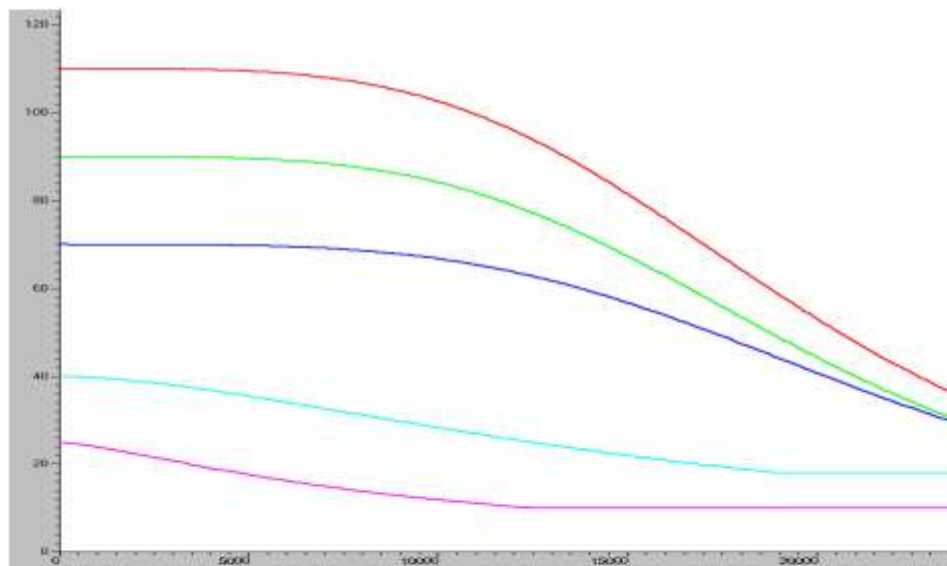
An Emme/3 model of the study area has been constructed to incorporate the base demand constructed using the methodology described above, and to assign the demand to the existing transport network.

The model includes strategic highway, rail and air links within the Baltic States and includes a representation of the inter-urban bus network.

Highway links in the model have been allocated to one of the following link categories:

- 11 Motorway
- 12 dual carriageway (rural)
- 13 single carriageway main road (rural)
- 14 minor rural road
- 15 Local road (Urban)

Each category has an associated Volume delay curve (VDF) which is used within the model to define the link speed that will occur at a given volume of traffic. This is particularly important for future year models where traffic volumes are expected to have grown with a resultant reduction in travel speeds. The volume delay curves are shown below.



Highway links have also been allocated a bus speed to reflect the slower journey time for buses than cars. These values have been set globally by link type, but calibrated along the key city to city routes to reflect current timetabled journey times.

Mode Choice Model

The mode choice model takes travel costs (travel times and distance) from the assignment model and calculates for each origin to destination movement the generalised cost of travel by Car, Rail, Bus, and Rail Baltica.

The Generalised Cost (GCij) for each movement has been calculated for each mode using the formulation given below:

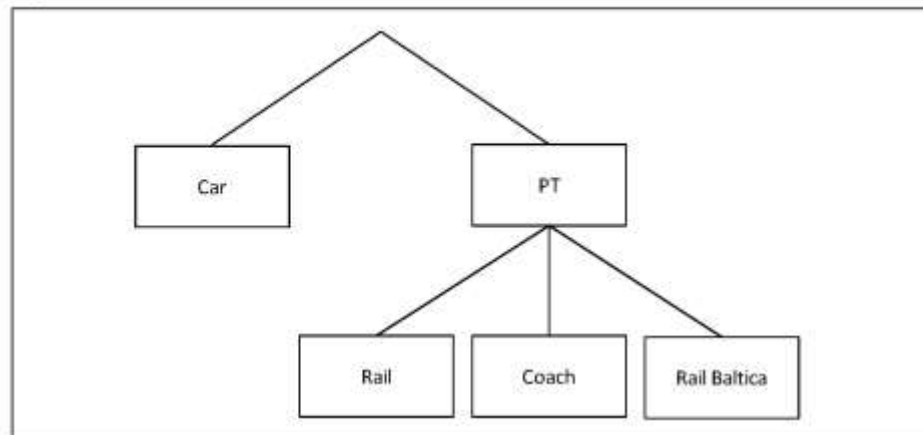
$$GC_{ij} = ((AT_i + WT_i * \text{wait time weighting} + JT_{ij} + ET_{jj})) + (Fare_{ij} + VoC_{ij}) / (VoT/60))$$

Table 33 - Sources of the elements of the generalised cost calculation

Cost Element			Car	Bus	Rail	Rail Baltica		
Access Time	AT _i	Average time to access mode at origin	0	Large Cities: 30 minutes Small Cities and Towns: 20 minutes				
Wait time	WT _i	Average time to wait for mode at origin	0	Wait time calculated as half the average time between service departures, therefore wait time varies by Origin to Destination movement depending on frequency of service. The maximum wait time has been set at 3 hours to reflect the fact that people time their arrival at bus and rail stations for infrequent services.				
Wait time weighting		Factor to reflect dissatisfaction with waiting for public transport services	-	2.0 used in line with standard industry practice.				
Journey time	JT _{ij}	In-vehicle journey time	From assignment model					
Egress time	ET _i	Average time to travel from mode stop to ultimate destination origin	0	Large Cities: 30 minutes Small Cities and Towns: 20 minutes				
Fare	F _i	Public transport Fare	-	Trip length (in km) from Assignment model * Average fare rate for mode in country based on observed data:		Trip length (in km) from Assignment model * Average fare rate		
				Estonia	€0.050 per km		Estonia	€0.038 per km
				Latvia	€0.041 per km		Latvia	€0.040 per km
				Lithuania	€0.063 per km		Lithuania	€0.054 per km
Vehicle Operating Costs	VOC _{ij}	Vehicle operating costs	€0.07 per km, based on fuel price.	-	-	-		
Value of Time	VOT	Value of time		Estonia	€8.5 per hour			
				Latvia	€7.3 per hour			
				Lithuania	€6.8 per hour			

The mode choice model has been established as a nested logit model with the top tier choice between car and public transport and the second tier choice between the various public transport alternatives (bus and coach). A composite generalised cost for PT modes has been created by taking the natural log of the sum of individual mode utilities and multiplying it by 1 divided by the car / PT elasticity.

Figure 16 - Mode Choice Model Structure



Mode share utilities have been calculated according to this formulation:

$$U_m = e^{\lambda_m(GC_{ij,m} + \theta_m)}$$

Where

- λ is the elasticity,
- θ is the mode share constant, and
- GC_{ij} is the generalised cost for mode m .

Mode choice proportions are calculated by dividing the utility for each mode by the composite utility (for all modes on the top tier and for PT modes on the second tier). Car mode share is factored by a sensitivity parameter based upon car ownership levels.

Table 34 - Mode Choice Parameters below outlines the key model parameters that have been adopted. These have been calibrated such that the modelled mode splits on key movements within the Baltic States reflect observed mode shares.

Table 34 - Mode Choice Parameters

	Estonia	Latvia	Lithuania
Car Mode Constant (minutes)	0	0	0
Bus Mode Constant (minutes)	60	90	60
Rail Mode Constant (minutes)	70	50	80
Rail Baltica Mode Constant (minutes)	50	50	50
Car / PT elasticity	-0.012		
Bus / Rail / Rail Baltica elasticity	-0.020		
Car sensitivity parameter	0.92		

Air to Rail Baltica Demand shift model

The assessment of the volume of existing air passengers who will shift to Rail Baltica has adopted an alternative methodology. It is standard practice to consider the shift from Air to rail as dependent primarily on the duration of the new rail service which is introduced. This is in contrast to other modes where the generalised cost of the existing journey has a large influence on the size of the mode shift.

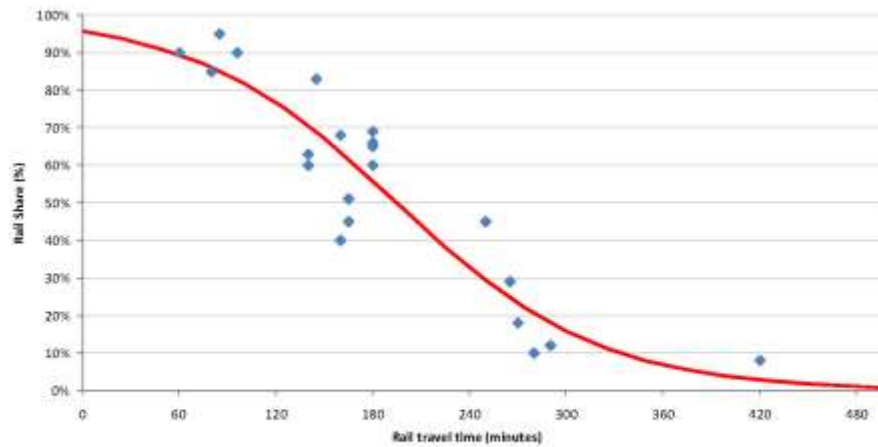
A Logit model has been built using observed data from a series of case studies across Europe, where new rail services were introduced and demand shifted from existing air services. The case studies include a range of both high speed and conventional rail services, and come from a range of countries.

Table 35 - Contains a summary of the rail journeys used for this purpose.

Rail Journey	Journey Time for new rail service (hh:mm)	Distance (km)	Share of Air Demand prior to open that switched to rail
London - Paris	02:40	160	68%
London - Brussels	02:20	140	63%
Paris - Marseille	03:00	180	66%
Paris - Bordeaux	03:00	180	65%
Madrid - Barcelona	04:40	280	10%
Madrid - Sevilla	02:25	145	83%
Rome - Florence	01:36	96	90%
Frankfurt - Cologne	01:00	60	90%
Paris - Strasbourg	02:20	140	60%
Madrid - Barcelona (highspeed)	02:40	160	40%
Madrid - Seville	02:45	165	51%
Paris - Marseille	03:00	180	69%
Madrid - Barcelona - 2005	04:50	290	12%
Madrid - Barcelona - 2002	07:00	420	8%
London - Edinburgh - 2004	04:30	270	18%
London - Edinburgh - 1999	04:25	265	29%
Paris - Brussels	01:25	85	95%
Paris - London	03:00	180	60%
Paris - Amsterdam	04:10	250	45%
London - Brussels	02:45	165	45%

The fitted logit curve is displayed in Figure 17 - Fitting of Logit Curve to European Observed Rail Data and the equation is provided below.

Figure 17 - Fitting of Logit Curve to European Observed Rail Data



$$\text{Rail Share} = \frac{1}{1 + e^{\lambda(T+\theta)}}$$

where:

T = Rail Travel Time,
 λ = 0.0159 and
 θ = 195 minutes

It is clear that the relationship fits the observed data well and that when new services are opened that provide a rail alternative to air that has a journey time of less than 2 hours significant proportions of the existing air market (~80%) will shift, whereas when the rail alternative has a journey time of over 4 hours the share of the air market that shifts falls to around 30%.

Base Model Calibration and Validation

The base models have been calibrated and validated to observed demand and journey characteristic data.

- Base demand has been calibrated to observed demand initially at a zone to zone level, where data is available; followed by calibration to observed volumes at a national level.
- The Base assignment model has been calibrated to ensure highway volumes match 2009 AADT traffic counts on all strategic roads within the Baltic States.
- The base assignment model has also been validated to match observed travel times, as defined by route planner software.
- The base mode choice model has been calibrated to match observed mode shares on key movements within the region.

In summary the model suite provides a sound basis on which to conduct option tests.

Forecasting Approach

Population and Economic Growth

Population and GVA data has been obtained for Estonia, Latvia, Lithuania and some other locations around the Baltic states. These data are mostly at a NUTS3 level and contain historic data and forecasts approximately in the range 2000 – 2050. In addition, population and GVA data for other parts of Europe have been collated from Eurosta, UN and other statistical databases.

The forecasting model estimates the total trip growth for each model zone based upon population growth and GVA per head growth for the area. It has been assumed that traffic will grow at 60% of the rate of GDP per head and 100% of the rate of population growth.

The table below shows the average annual demand in passenger growth predicted using the economic information presented in the macro-economic data section.

Table 36 - Average Annual Growth in Passenger Demand by Region

Period	Estonia	Latvia	Lithuania	Baltic Region	International
2009 - 2020	1.50%	0.63%	1.14%	1.06%	0.88%
2020 - 2030	1.46%	1.25%	1.15%	1.23%	0.84%
2030 - 2040	1.52%	1.35%	1.16%	1.29%	0.88%

The zone growth rates are then applied to individual movements (each origin / destination pair is factored by the average of its origin and destination growth factor) in order to produce a complete matrix of growth factors, which is applied to base demand in the assignment model. This means that there will be different growth rates for each movement. The growing economic differences between the Baltic states, which are reflected in differential GVA growth rates for the states, will therefore result in higher growth in trips into and out of states that are growing strongly than for trips into and out of states that are forecast to grow less strongly.

The impact of the shadow economy has also been captured in the approach adopted. The level of demand in future years is based on two elements, the current level of demand, and how this will grow over time. The base demand in the model has been calibrated against various sources of observed data. This observed data includes both trips made as a result of both economic activity which is captured in the official accounts, as well as activities within the shadow economy. The modelling approach uses GVA forecast to drive growth in trip making rather than as a driver of absolute demand. We have adopted an assumption that the shadow economy (which is already driving some of the existing demand) will grow at the same rate as the 'official' economy (i.e. GVA), and therefore growth in GVA provides a good proxy for the growth in total economic activity (both official and unofficial).

Value of Time Elasticity

A value of time for each zone within the model has been calculated using an elasticity formulation against GVA forecasts. It has been assumed that Value of time will grow at half the rate of GVA per head growth.

Induced Demand

Induced demand is often observed when a new service or infrastructure reduced travel costs between two locations. Typically the level of additional demand induced is related to the size of the reduction in travel costs. The level of induced demand has been calculated for the Rail Baltica service scenarios on an origin-destination level using an elasticity approach. A separate induced factor is calculated for each movements and demand segment (i.e. trips diverted from car, trip diverted from bus, etc.) based on the reduction in travel time which results from switching from the exiting mode to Rail Baltica and an elasticity of -0.3.

Assignment Model

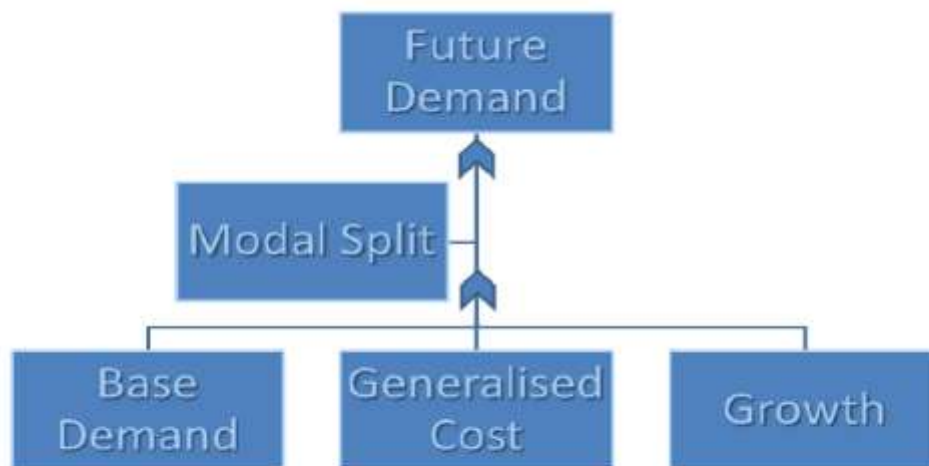
The base year assignment model has formed the basis of the future year models. Key forecast assumptions have included:

- Increase in car congestion will be captured by volume delay curves as a result of larger future year traffic volumes.
- Local traffic, which is included in the model as fixed volumes will grow in line with average rate of traffic growth across the region
- Coach journey times will increase at 1% per annum as a result of increasing congestion.

4.4.2 Freight Model Structure and Process for Forecasting Demand

Taking account of the factors described above a model has been developed to assist the study in understanding the overall demand for freight transport in the region based on existing flow information for freight movements, allowing the prediction of demand over the 30 year study period. The model considers both international, national and regional demand: forecasts and base year estimates are based on a NUTS3 detail level for Lithuania, Estonia and Latvia traffic and on a country wide basis for other international destinations.

The model that has been created is a mode choice model accounting for road, rail and sea traffic. The model has two streams which run in parallel; demand and modal split. By considering all modes and calculating the modal split based on the generalised cost the model can predict future potential for shift from existing road, rail and sea onto the Rail Baltica line. The model is structured as follows:



Base demand is split into bulk and non bulk commodities. Demand growth has been forecast using GDP growth forecasts and separate timber industry forecasts where applicable. Change in future costs has been predicted using growth in fuel, labour and other costs.



Model Base Year

The model base year has been taken as 2008. 2009 saw dramatic changes in tonnage levels for the majority of origins / destinations north-south due to the global recession. The Future of Transport, Focus Groups' Report, 20.02.2009 states that transport demand is closely linked to economic growth. In times of economic slowdown, there tends to be a sudden fall in transport demand, which however is bound to recover more quickly than the rest of the economy. Reactions during previous recessions clearly confirm this resilience of transport demand. In times of economic recovery, freight transport usually grows faster than overall GDP. This can in part be explained with the faster growth in international trade. Based upon this reasoning it was decided to take 2008 as the base year as this is likely to be more representative of long term volumes than 2009 information.

Factors Affecting Modal Switch to Rail Baltica for Freight Traffic

Train Frequency and Sufficient Critical Mass to Run a Train

A major factor affecting mode choice is the frequency of services and the business model of some operators as requiring guarantees for regular full trainloads is demanding. For market entry on a flow in general there has to be enough demand for a daily round-trip block train. Freight forwarders are required to provide certainty on train utilisation to rail freight operators in order to use this mode, as well as provide sufficient volumes to block-book full trainloads. A number of freight forwarders suggested that this was a difficult commitment for even the biggest companies to satisfy, and therefore for small volumes rail as an option is largely ruled out. However, most operators are flexible and are willing to look at a range of options to develop the market. One of these options is to work with groups of clients on flows where there is insufficient demand for one company to block-book a train. There is support for the creation of a spot-market for wagons, although it is recognised that this might need to be supported by governments or its agencies until a 'critical mass' of volume is reached.

Reliability and Flexibility

There are perceived and real differences in flexibility and reliability, between road and rail. Road is inevitably more flexible and allows even "same day" changes in delivery schedules or volumes. Cost can be instantly reduced by cancelling a required number of lorries. It is not so easy to do this on the railways. Similarly the ability to increase volumes at short notice is relatively limited. However, on the issue of reliability many operators are showing real improvement in reliability and indeed some companies are as good as or even better than road freight (LDZ currently has 91% reliability for rail freight services). Some rail freight operator's business models incorporate exacting reliability factors.

Journey Distance

Traditional wisdom has been that for rail freight to be financially attractive the journey has to have sufficient distance: typically over 150 kilometres. This is based upon the operator's rationale that while rail has high fixed costs it has low marginal cost (on a per kilometre basis) making it competitive over trucks for longer distances. However, given the right circumstances rail could be competitive at any distance. There are specific examples where distances as short as 80-100 kilometres would be considered due to particularly bad road congestion, where very efficient utilisation and rotation of rolling stock can be obtained, or where rail offers payload advantages.

Fast Speeds and Quicker Journey Times

Typical average speeds in Europe are approximately 140kph for passenger services and 70-75 kph for freight services. Several potential customers of rail freight are saying that journey times should be fast. Intermodal services and express parcel services can generally travel quicker (top speed of 120km/hour) than bulk trains which are usually restricted to 100km/hour. The top speed of these intermodal trains is 33% faster than the standard top speed for lorries and if this advantage can be used then rail can be competitive on end-to-end journey times. As a comparison typical European rail journey times are:

- Milan to Venice – distance 277 km, passenger 2:35, freight train 4:23
- Milan to Zurich – distance 279 km, passenger 3:41, freight train 5:41 (terrain more mountainous giving slower journey time)

Avoiding Unnecessary Delays

As an operating principle, the infrastructure managers should aim to achieve this through running of freight trains, seeking timetabling and signalling solutions in preference to the use of passing loops. This has the potential to deliver significant environmental, operating and economic efficiencies, particularly if delivered alongside existing plans to reduce the level of delay to freight trains.

Operational Resilience to Satisfy Customer Requirements

There are a number of issues concerning rail freight operations that in practice may negatively impact on the service provided by Rail Baltica and these are detailed below.

- Irregular patterns of long distance services lead to sub-optimal use of capacity;
- Lack of parallel routes with adequate loading gauge, electrification and line speed reduces opportunities for freight to be routed away from capacity constrained sections;

- Performance problems when services are running out of train path. The mix of high speed passenger trains with varying stopping patterns and slower passenger and freight services may make it difficult to contain delays; and
- The presence of different rail gauges in the region means diversionary routes can often be long and circuitous or non-existent, so trains have to be cancelled when the main route is unavailable

Environmental Factors

In addition to long-run capital and operational costs there are environmental benefits of rail transport to consider. Environmental issues are currently more of a governmental priority but this is changing fast and some major international companies are seeking to dramatically reduce their "carbon footprint". Customers including several of the major manufacturers and retailers are taking a more environmental view on distribution and are working towards modal shift from road to rail where it is viable and practicable to do so. For rail, typical CO₂ (Carbon Dioxide) emissions can be around five times better per tonne moved than by road transport, depending on many factors including motive power, lading factors etc. Economic incentives for industry would include carbon trading and Eurovignette if / when this were to be introduced (EC proposals currently include external costs inclusion within the Eurovignette which would incentivise use of rail). With the likely introduction of carbon trading levies, or similar "green tax", then rail should become even more attractive to customers if it can be efficient.

Fuel taxes within the Baltic states are currently low compared to the European average therefore it is assumed that these will increase, in addition as fuel forms a higher proportion of road freight costs (38% approx according to TREMOVE) than for rail freight (14% according to LDZ), as oil prices and fuel duty increase in the long term road freight costs are likely to increase faster than the cost of rail.

Competition in the Rail Freight Sector

With regard to competition, in a survey conducted in the UK for the ORR (Office of Rail Regulation) more than four fifths of respondents thought that it is very or fairly important to have a choice of rail freight service provider, recognising the importance of this in driving down prices and improving service quality. As an example at the time of writing there are six Freight Operating Companies actually running trains in the UK in competition with each other and a further four logistics integrators that charter trains as well giving customers a real choice. The rail freight market in the UK has grown around 60% in tonne kilometres in the last ten years thanks partly to competition. Competition is not present yet within all Baltic States to a large degree.

Additional Rail Freight Terminals

There are some gaps in the national provision of "open user" rail freight terminals. The definition of "open user" in this case means a freight terminal able to handle different types of traffic and by different operators and this is particularly relevant for intermodal rail services. The geographical gap in provision has been a contributory factor in the development of a patchy network of rail freight services. The development of a good geographical network of terminals will facilitate a comprehensive supply of interconnecting services. Generally rail freight has a high level of reliability in terms of journey times, particularly on time-critical "just in time" intermodal flows and as a consequence is increasing the level of supply chain confidence. A main obstacle to potential growth is the lack of provision of high quality rail freight interchange terminals in key locations and the need for development funding of high quality rail terminal facilities within these terminals.

Rail Productivity and Length of Train

Clearly economies of scale come from longer and heavier trains where it is practicable to run them. The maximum capacity for European Intermodal Freight Trains will be for a length of 775m long. A 775m train length is considered desirable as this is seen as being the future 'standard' inter-modal train length (118 SLU / 775m plus locomotive) and moves more volume in the same number of train paths. Longer trains also achieve a better cost/rate per mile or kilometre. There are issues of signal spacing, length of passing loops and acceleration rates to consider. Generally electric locomotives have better haulage and acceleration capabilities than diesel locomotives. Electrification would therefore be beneficial as electric locomotives are more likely to have the capability of hauling a 775m long train in a standard train path. Although this capability can be built into a new railway, increasing train length from 500m to 775m is not straightforward on certain parts of the European network, and the ability of trains of this length to perform adequately within available paths and on a mixed traffic network need to be considered. Trains may be required to split at Warsaw freight yard for onward movement to other parts of Europe.

Competition with the Road Freight Sector

Although Rail Baltica could gain modal shift from water freight because the cost base of shipping is so low, if suppliers and end users are relatively close to ports which have linking services it is less likely that rail will be able to offer a competitive package. So it is important to consider the factors that are either already affecting or could affect the road freight sector in the future as its this sector that might provide more opportunities for modal shift to rail especially if there are more service and cost pressures on road than rail.

Costs of Road Haulage

The average costs of road haulage including for example fuel costs, vehicle costs, driver and overheads are set to increase over time as world fuel prices and wage costs increase. At the moment it is estimated to cost roughly €1 per kilometre for a 40 tonne articulated lorry (Source: Estonian Logistics & Freight Forwarding Association (ELEA)). The costs of this are higher in parts of Western Europe and over time there is likely to be more of a levelling of costs Europe-wide. Typically in road freight labour and fuel represent about a third each of costs whereas these two factors represent a lower percentage of total costs in the rail freight sector. Therefore when fuel and labour costs rise, rail generally becomes more cost competitive.

Lorry Road User Charging / Eurovignette

There are European regulations allowing member states to introduce certain forms of road charging or Eurovignette. There are road tolls in several countries and a charge on lorries for example in Germany, called the Maut and in Lithuania. In certain countries they are concerned about introducing what may be seen as another tax on road hauliers which ultimately is passed on to the customer in higher prices. It is uncertain how likely it is that this will be introduced across most of Europe but it would affect costs and competitiveness against rail. There are mixed views on its introduction and for example ELEA said they thought it is necessary and will be good for the overall industry.

Border Crossings and Delays

It is understood that there are sometimes problems for road freight due to queuing at the borders, particularly with Russia. For example in Estonia there are three different border points with Russia and the biggest is Narva where there can be queues usually lasting approximately three days and only about 70 trucks per day can cross the border. This is only a problem when crossing the Russian border with trucks, as there appear to be no problems with the railway.

Comparative Journey Times by Road

Comparative journey times by road have been taken for all origins and destinations using AA Route Planner and HGV speed limits and driver rest requirements. Journey times are likely to decrease in the future with the introduction of new motorway infrastructure.

Road Improvements Which May Impact on Rail Baltica

European Route E67 is a road running from Prague in the Czech Republic to Helsinki in Finland by way of Poland, Lithuania, Latvia, and Estonia. It is known as the Via Baltica between Warsaw and Tallinn, a distance of 970 kilometres and is a significant road connection between the Baltic States. The final stretch between Tallinn and Helsinki is by ferry. Road improvements on this route and other parallel routes may have a negative impact on Rail Baltica since it may lead to shorter journey times and a competitive advantage for road haulage against rail freight. E67 road improvements include the extension of Riga ring-road and Kekava ring-roads. Another major route that might have an effect is the reconstruction of Tallinn – Tartu road (E263) which is the longest road that crosses Estonia diagonally being a connecting link between the North and South-East of Estonia. There are also road improvements in Poland which will affect overall journey times.

Legal Compliance by Road Hauliers

The cost competitiveness of hauliers from one company to another can vary depending on how strictly the operator obeys European transport laws such as driving hour's rules and weight limits. Enforcement has increased recently in certain member states but is likely to increase further in the future. It is understood that in Estonia the rules are enforced very strictly and this is a very important question, because they state that whilst these rules might work alright for middle Europe they place limitations on Northern countries. Sometimes Estonian trucks stay overnight just on Latvian-Estonian border, as the truck cannot make a full return trip in a day due to legal driver rest breaks.

Vehicle Size

HGV size and weight limits vary across Europe, for example 50 tonne lorries are currently in operation in Holland whilst 40 or 44 tonne lorries are the maximum in many other European countries. In the Baltic States 40 tonnes is the limit, or 44 tonnes when carrying a 40' container. Although some road freight groups are campaigning for heavier lorries, many countries including the UK and Estonia have decided that their roads are not suitable or ready for an increase in weight and changes of this kind will take more time and money. There is debate on the overall dimensions of HGVs with a possible height limit being introduced of 4 metres. This is being challenged in several countries including Germany and the UK.

Demand

The level of demand has been calculated by taking the 2008 base demand in tonnes and applying growth factors for the 3 modelled years, these factors have been calculated using GDP forecasts and factored to freight growth as detailed below.

The data used within the model is predominantly taken from Eurostat. This data and the data provided by the Lithuania, Latvian and Estonian governments largely agrees however there have been some instances where one countries statistics states that trade with another country is X tonnes and the receiving country states a different figure. Where this has happened the most sensible figure has been taken as correct. Eurostat data has primarily been used as this data is more detailed in relation to modal split and origin destination than the data available from the Lithuania, Latvian and Estonian governments and in addition data is available for transit routes. Detailed road freight data was provided by Lithuania for domestic journeys and this has been used within the model.

A furnessing process has been used in the Rail Baltica freight model for the road freight base demand in order to provide a consistent base matrix. Furnessing is commonly used with transportation modelling as a method of matching base matrices to new row and column totals.

Since two data sources, Eurostat database and statistics provided by the Governments have been used to provide detailed movements at NUTS3 level for flows to, from and within Latvia, Lithuania and Estonia, furnessing has been required to level out minor inconsistencies in the data. The Lithuanian Government Statistics provide complete flows at NUTS3 level but the totals entering and leaving these regions does not, in some cases, match the Eurostat totals entering and leaving these regions." For Latvia and Estonia origins and destination pair data by NUTS3 area has been synthesised using the furnessing process on loading and unloading data available from Eurostat.

Correlation of GDP to Freight Growth

GDP has been used to forecast future freight growth. Historic information for GDP and freight growth from 2003 – 2008 has been compared and it has been determined that for the majority of flows there is a very strong correlation between freight growth and GDP growth (see below):

Table 37 - Correlation of GDP of Freight Growth

Origin	Destination	Correlation	Freight Growth as a % of GDP Growth
Russia	Latvia	0.79	29%
Russia	Germany	0.87	305%
Russia	Lithuania	0.99	283%
Finland	Germany	-0.34	-57%
Germany	Russia	0.98	397%
Germany	Finland	0.94	119%
Latvia	Germany	0.44	175%
Latvia	Finland	0.97	338%
Lithuania	Latvia	0.95	52%
Germany	Lithuania	0.98	84%
Latvia	Estonia	0.82	265%
Finland	Poland	0.96	363%
Poland	Lithuania	1.00	189%
Lithuania	Germany	-0.97	-125%
Lithuania	Russia	0.88	114%
Lithuania	Poland	-0.31	-9%
Latvia	Russia	0.98	142%
Germany	Latvia	0.97	37%
Latvia	Lithuania	0.86	93%
Poland	Finland	0.43	154%
Lithuania	Estonia	0.79	93%

Origin	Destination	Correlation	Freight Growth as a % of GDP Growth
Latvia	Poland	0.85	74%
Estonia	Latvia	0.72	88%
Germany	Estonia	0.99	134%
Estonia	Germany	-0.64	-300%
Finland	Italy	0.58	794%
Latvia	Italy	0.83	822%
Poland	Latvia	0.53	33%
Estonia	Lithuania	0.78	75%
Poland	Estonia	0.95	224%
Lithuania	Finland	0.12	114%
Finland	Latvia	0.99	241%
Italy	Lithuania	0.94	201%
Finland	Lithuania	0.92	259%
Estonia	Poland	0.76	50%
Lithuania	Italy	-0.45	-329%
Czech Republic	Lithuania	0.59	50%
Lithuania	Czech Republic	0.71	173%
Italy	Finland	0.07	112%
Italy	Estonia	0.80	54%
Latvia	Lithuania	0.86	93%

For some flows where the correlation is low (or even negative) it has been determined that this is likely due to the high dependence of freight volumes on timber / wood products flows. These flows have been forecast separately as described in the assumptions table. The table above also shows the relationship between freight growth and GDP i.e. % freight growth as a proportion of % GDP growth. This relationship is assumed to continue for the flows that have not been forecast separately.

Modal Split

Within the Rail Baltica Freight Model a modal split calculation is made which, for each Origin-Destination pair, converts the generalised cost for each mode into a percentage split between modes.

The equation has the form;

$$P_{ij}^x = \frac{\exp(-\alpha C_{ij}^x)}{\exp(-\alpha C_{ij}^x) + \exp(-\beta C_{ij}^y) + \exp(-\delta C_{ij}^z)}$$

Where P_{ij}^x is the probability of using mode x to go between i and j. C is the generalised cost and α, β, δ are fixed weighting parameters.

In the model $\alpha = 0.01, \beta = 0.008, \delta = 0.009$ for Non Bulk and $\alpha = 0.01, \beta = 0.009, \delta = 0.009$ for Bulk. These are the parameters for Road, Rail and Sea respectively. Using these parameters if the generalised cost of the modes for a particular non bulk journey were equal at 100 then 30% would use Road, 37% Rail and 33% Sea.

The model has been calibrated so that there is no unrealistic shift between modes in future years. For example; in future years there are no major shifts from Road to Sea because there is no major shift in generalised cost for these modes.

As can be seen the driving force of the modal split calculation is the generalised cost which is calculated as:

Generalised Cost = (Journey Time x Value of Time) + Journey Cost + Handling Costs

This calculation has been completed for each Origin-Destination for Rail, Road and Sea, as well as Bulk and Non Bulk. Each element of the generalised cost has been discussed in the assumptions section.

As an example the generalised cost for Finland to Germany in 2020 for each mode;

Generalised Cost	Road	Rail	Sea
Non Bulk	2562	2539	2141
Bulk	2118	1176	1174

Road is the least favourable mode for both Bulk and Non Bulk, these numbers would lead to Sea taking the majority of traffic with some, especially bulk, for Rail.

Where the 1520 gauge line is involved a separate handling cost and time has to be added thus increasing the generalised cost for this journey which helps to explain why there is little transfer from the existing lines to the Rail Baltica Line since it is less attractive than remaining on the existing route in most cases.

Rail Freight Pricing Options

The model has 3 pricing options High, Medium and Low which are detailed below:

High

Type		Transit	Import, Export, Domestic
Per tonne km	Bulk	0.038	0.05
Per container km	40'	1.38	3.00
Per container km	20'	0.69	1.51

Medium

Type		Transit	Import, Export, Domestic
Per tonne km	Bulk	0.03	0.04
Per container km	40'	0.86	1.30
Per container km	20'	0.48	0.84

Low

Type		Transit	Import, Export, Domestic
Per tonne km	Bulk	0.02	0.04
Per container km	40'	0.56	0.86
Per container km	20'	0.29	0.66

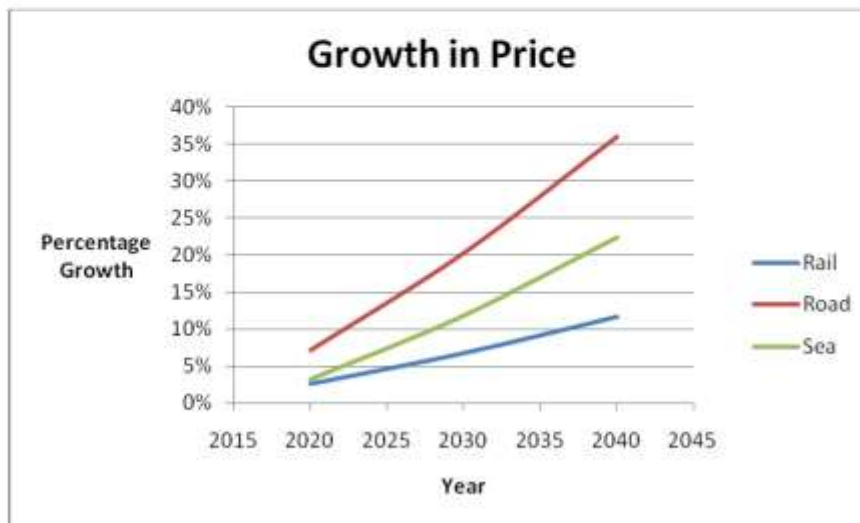
These have been calculated from the quoted prices from Latvia, Lithuania and Estonia.

Induced Demand

It is assumed that induced demand will be seen at a level of approximately 15% additional traffic over mode shift demand. This is based upon international examples of new lines such as freight induced demand estimates for the new rail corridor linking Melbourne and Brisbane (Phil B Goodwin and ATEC (Australian Transport & Energy Corridor Ltd) financial study). A maximum of 30% additional traffic will be tested within the model based upon the maximum seen in international examples (Noland, R.B., Cowart, W.A., 2000. Analysis of metropolitan highway capacity and the growth in vehicle miles of travel). The level of induced demand will be highly dependent on both pricing policies and policy regarding Free Economic Zones. If, for example, Free Economic Zones are limited to solely the ports much lower levels of induced demand are likely to be seen on the railway.

Growth in Price

The growth in rail, road and sea freight prices is forecast as below. Due to the higher proportion of road and sea freight prices related to labour and fuel it is likely that these prices will rise faster than for rail freight, meaning that rail freight is likely to become increasingly competitive in future years.



Model Assumptions

A full list of the model assumptions and the sources of each assumption can be found below:

Table 38 - Table of Assumptions

Assumption	Affects	Source of Assumption																																								
Sea freight costs	Mode choice	Sea freight quotes provided for 40' containers by a wide variety of shippers and the assumption has been made that 20' = 80% cost of 40' from average of quotes provided by Ahlers Latvia, Samskip and Unifeeder																																								
Road freight costs	Mode choice	Road freight costs per kilometre provided by a range of Hauliers who operate in the study area, this includes costs for overnight haulage and multi-manning where appropriate. Prices quoted range from €0.9 to €1.15 per km. €0.9 has been assumed for single manned journeys €1.15 for multi-manned. €50 has been assumed for overnights.																																								
Rail freight costs	Mode choice	Rail freight costs based on quotes provided by LDZ and Eesti Raudtee and on standard tariffs available on the websites for LDZ, Eesti Raudtee and Lithuania Railways for 20' containers, 40' containers and bulk freight. Low, medium and high costs have been assessed based upon these values.																																								
Values of Time	Mode Choice	Values of time taken from Tremove – the European Commission's modelling system for Bulk, General Cargo and Unitised Freight for Road, Rail and Sea in various EU countries. Lithuania, Latvia, Estonia and Polish all had the same values and Russia is assumed the same. <table><tr><th></th><th></th><th>Baltics</th><th>Germany</th><th>Finland</th></tr><tr><td rowspan="2">Bulk</td><td>Train and Ship</td><td>0.002</td><td>0.005</td><td>0.005</td></tr><tr><td>Road Freight</td><td>0.002</td><td>0.006</td><td>0.006</td></tr><tr><td rowspan="3">General Cargo</td><td>Train</td><td>0.002</td><td>0.007</td><td>0.007</td></tr><tr><td>Ship</td><td>0.003</td><td>0.009</td><td>0.009</td></tr><tr><td>Road Freight</td><td>0.004</td><td>0.012</td><td>0.011</td></tr><tr><td rowspan="3">Unitised</td><td>Train</td><td>0.006</td><td>0.017</td><td>0.033</td></tr><tr><td>Ship</td><td>0.008</td><td>0.021</td><td>0.033</td></tr><tr><td>Road Freight</td><td>0.010</td><td>0.028</td><td>0.026</td></tr></table> Based upon port statistics - For Baltics = 34% of Bulk + General Cargo = General Cargo - For Finland = 58% of Bulk + General Cargo = General Cargo - For Germany = 26% of Bulk + General Cargo = General Cargo			Baltics	Germany	Finland	Bulk	Train and Ship	0.002	0.005	0.005	Road Freight	0.002	0.006	0.006	General Cargo	Train	0.002	0.007	0.007	Ship	0.003	0.009	0.009	Road Freight	0.004	0.012	0.011	Unitised	Train	0.006	0.017	0.033	Ship	0.008	0.021	0.033	Road Freight	0.010	0.028	0.026
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	Ship	0.008	0.021	0.033																																						
	Road Freight	0.010	0.028	0.026																																						
Tonnes Per Container	Number of Trains	14 Tonnes based upon average container weight over Lithuania, Latvia and Estonia from Eurostat																																								
Tonnes per Lorry for Bulk Cargo	Number of Trains	18 Tonnes based upon average lorry weight for bulk traffics over Lithuania, Latvia and Estonia from Eurostat																																								
Trucks Per Train	Number of Trains	50 for Non Bulk, 200 for Bulk. This gives average train weights of 3,600 tonnes for bulk and 900 tonnes for non bulks. This is based upon information provided by University of Riga. These are heavier than general European trains (for example the average UK container train is 450 tonnes and average bulk is 1,500 tonnes), however, they are lighter than the current Russian gauge trains LDZ have stated that on the other sections of Latvian railway infrastructure, where there are container trains, the weight of container train is around 1800-2100 tonnes and bulk trains can run up to 5,100 tonnes and trains of up to 5,300 tonnes run through Narva. Estonian information indicated an average container train weight of 850 tonnes and average bulk train weight of 4,000 tonnes. Trains may be required to split at Warsaw freight yard for onward movement to some parts of Europe.																																								

Assumption	Affects	Source of Assumption
Handling Charges	Mode Choice	Handling charges have been taken from information available from NYK Logistics (in Euros).
</		

Assumption	Affects	Source of Assumption																				
Composition of Road, Rail and Sea Costs	Future growth in prices, future modal choice	The split between labour, fuel and other costs has been taken from TREMOVE for road freight, taken from information provided by LDZ for rail freight and taken from Statistical coverage and economic analysis of the logistics sector in the EU (SEALS), European Commission, 2008 for sea freight. <table><tr><th>Price Growth Rate</th><th colspan="3">Percentage Split</th></tr><tr><td></td><th>Fuel</th><th>Labour</th><th>Other</th></tr><tr><td>Rail Freight</td><td>14%</td><td>14%</td><td>72%</td></tr><tr><td>Road Freight</td><td>36%</td><td>45%</td><td>18%</td></tr><tr><td>Sea Freight</td><td>11%</td><td>31%</td><td>58%</td></tr></table>	Price Growth Rate	Percentage Split				Fuel	Labour	Other	Rail Freight	14%	14%	72%	Road Freight	36%	45%	18%	Sea Freight	11%	31%	58%
Price Growth Rate	Percentage Split																					
	Fuel	Labour	Other																			
Rail Freight	14%	14%	72%																			
Road Freight	36%	45%	18%																			
Sea Freight	11%	31%	58%																			
Growth in labour, fuel and other costs	Future growth in prices, future modal choice	Labour price growth is assumed to follow GDP forecasts, Fuel follows trends provided by European Transport Trends to 2030, European Commission. Other costs have been assumed to remain the same in real terms. <table><tr><td></td><td>2020</td><td>2030</td><td>2040</td></tr><tr><td>Fuel</td><td>12%</td><td>15%</td><td>17%</td></tr><tr><td>Labour</td><td>6%</td><td>33%</td><td>66%</td></tr></table>		2020	2030	2040	Fuel	12%	15%	17%	Labour	6%	33%	66%								
	2020	2030	2040																			
Fuel	12%	15%	17%																			
Labour	6%	33%	66%																			
GDP	Demand growth	As detailed within the economic section																				
Timber industry Forecast	Demand growth	Some major flows are dominated by paper products, e.g. Latvia-Germany, for these the future growth in the timber industry has been used, taken from EU forecasts (Development of a Model of the World Pulp and Paper Industry, European Commission).																				
Germany Traffic	Demand	It has been assumed that 50% of sea traffic to/from Germany would be able to use Rail Baltica (representing traffic currently travelling from southern Germany). Northern flows are unlikely to use the line.																				
Current Rail Bulk Percentage	Base Demand	It has been assumed that the existing railway is 20% Non Bulk, the remaining 80% is assumed to be bulk, this is based on information obtained from Lithuanian Railways and LDZ relating to the composition of current rail freight flows.																				
Inter Baltic Rail traffic	Demand	The following proportions of Inter Baltic rail traffic using the current railway lines are assumed to shift to the new line: <table><tr><td>Lithuania - Estonia</td><td>0.4%</td></tr><tr><td>Lithuania - Latvia</td><td>1.7%</td></tr><tr><td>Estonia - Lithuania</td><td>2.0%</td></tr><tr><td>Latvia - Lithuania</td><td>4.1%</td></tr><tr><td>Latvia - Estonia</td><td>2.7%</td></tr><tr><td>Estonia - Latvia</td><td>6.2%</td></tr></table> This is based upon an assessment of the commodity types which form current traffic and a determination of which of these commodities are likely to be high value or express freight which may wish to use the new line.	Lithuania - Estonia	0.4%	Lithuania - Latvia	1.7%	Estonia - Lithuania	2.0%	Latvia - Lithuania	4.1%	Latvia - Estonia	2.7%	Estonia - Latvia	6.2%								
Lithuania - Estonia	0.4%																					
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Latvia - Estonia	2.7%																					
Estonia - Latvia	6.2%																					

Future Forecasts

Future forecasts for have been calculated as follows. The below indicate growth factors above base year levels.

Destination	GDP Forecast			Freight Forecast		
	2020	2030	2040	2020	2030	2040
Põhja-Eesti	26%	60%	103%	3%	7%	12%
Estonia	11%	41%	78%	1%	5%	9%
Riga	-2%	22%	52%	0%	3%	8%
Vidzeme	-30%	-13%	8%	-5%	-2%	1%
Zemgale	-19%	1%	25%	-3%	0%	4%
Kurzeme	-25%	-7%	16%	-4%	-1%	2%
Latvia	-2%	22%	52%	0%	3%	8%
Vilnius	23%	53%	90%	5%	11%	19%
Kaunas	15%	43%	78%	3%	9%	16%
Klaipėda	18%	46%	82%	4%	10%	17%
Lithuania	9%	36%	68%	2%	7%	14%
Poland	34%	63%	99%	14%	27%	42%
Germany	13%	31%	52%	23%	55%	92%
Finland	15%	37%	84%	8%	20%	34%
St Petersburg	39%	96%	176%	19%	48%	88%
Italy	6%	17%	30%	5%	13%	22%
Czech Republic	24%	51%	84%	2%	4%	6%
Hungary	25%	52%	85%	15%	31%	51%

4.4.3 Model Outcomes

Model outcomes for both freight and passenger traffic can be found in Section 7.

4.5 Potential Core Business Determined Through the Model

4.5.1 Freight Core Business

Based upon the model outputs the key traffics for Rail Baltica are the services shown in Table 40. More information and full freight demand forecasts can be found in Section 7.

The potential core business based upon this is primarily non-bulk transit traffic from central Europe to Finland and the St Petersburg area. This type of traffic requires good service levels, a high level of reliability and modern wagons and equipment for the handling of combined transport. This type of traffic is also generally more sensitive to journey times than bulk traffic therefore the faster the service provided the higher the levels of attraction that are likely. Gauge transfer facilities will be required for traffics to St Petersburg. These will need to be efficient and reliable in order to attract this type of business.

The second layer of core business is exports of non bulk goods from the Baltic states (with Lithuania and Latvia forming the majority of traffic). Traffics are likely to be primarily containerised on the long run (as this is the most efficient manner of transporting non bulk goods long distance) which may be comprised of traffics such as food and drink, manufactured goods, wood and paper products and even products such as peat in the long term. These types of traffics are likely to include some deep sea intermodal boxes arriving through the ports of Riga and Klaipėda travelling to St Petersburg, Finland and central

Europe. Some bulk exports may also be seen particularly from Lithuania to central Europe and from Latvia to St Petersburg. Capturing this type of traffic will require efficient handling facilities for combined transport in Latvia and Lithuania (such as the facility being developed at Kaunas).

Table 39 - Key Potential Freight Services

Origin	Destination	Trains per Day, Red Route, Medium Case, 2040	Cargo Type
Poland	St Petersburg	5	Non Bulk
Finland	Germany	3	Non Bulk
Lithuania	St Petersburg	3	Non Bulk
Germany	Finland	2	Non Bulk
Lithuania Internal Southbound		2	Non Bulk
Lithuania	Finland	2	Non Bulk
Lithuania	Poland	2	Non Bulk
Latvia	Finland	2	Non Bulk
Lithuania Internal Northbound		2	Non Bulk
Finland	Poland	1	Non Bulk
Germany	Estonia	1	Non Bulk
Lithuania	Latvia	1	Non Bulk
Poland	Finland	1	Non Bulk
Latvia	St Petersburg	1	Bulk
Estonia Internal Northbound		1	Non Bulk
Latvia	Lithuania	1	Non Bulk
Latvia	Finland	1	Non Bulk
Lithuania	Germany	1	Non Bulk
Estonia Internal Southbound		1	Non Bulk
Lithuania	Poland	1	Bulk
Lithuania	Germany	1	Bulk
Poland	Lithuania	1	Non Bulk
Lithuania	Finland	1	Bulk
Germany	Lithuania	1	Non Bulk
St Petersburg	Poland	1	Non Bulk
Latvia	Lithuania	1	Bulk

The third layer of core business is inter-baltic traffics. These types of traffic are likely to be at lower levels than transit and export traffics. Traffic is most likely to be time sensitive goods for example intermodal and post/parcels. Interest has been expressed in use of the line by some major domestic retailers within the countries. It should be noted that any traffic with origin and destination between Tallinn and Kaunas can only be considered a "core business" for Rail Baltica if the transport quality is perceivably higher than on the competing and already existing 1520 mm gauge line. The functional requirement specification indicates substantially reduced journey times indicating that this should be the case. In addition in order to capture the potential for this type of traffic (particularly the potential for inter-Baltic intermodal) the provision of modern and efficient handling facilities for combined transport will be required (as is the case for export traffic).

Finally some import traffics are likely to be seen on the line; however, this is likely to be at lower levels than exports due to the balance of trade currently seen. The main traffics from the information within the model are likely to be non bulks from Germany to Estonia and Lithuania and Poland to Lithuania.

Volumes are likely to be primarily transferred from existing road freight traffic with some volumes transferred from existing sea freight services. The proportion expected to be transferred from each mode is indicated below (out of the total of 100% transferred):

	Non Bulk		Bulk	
	<i>Sea</i>	<i>Road</i>	<i>Sea</i>	<i>Road</i>
2020	42%	58%	44%	56%
2030	24%	76%	34%	66%
2040	17%	83%	42%	58%

In the case of both types of traffic the attractiveness of rail compared to road is likely to increase in the future as it is likely that road prices will rise at a faster rate than rail, due to the differences in the makeup of road and rail freight costs.

The majority of the traffics indicated above are likely to require reliable and competitive journey times and good quality handling facilities in order to be realised. In addition a large proportion of this traffic may require the availability of track and trace systems, which it is noted are offered by companies such as Eesti Raudtee, DB Schenker and Lithuania Railways. In addition the availability of an integrated door to door service provision offer may well influence the extent to which rail is used for these types of traffics; it is noted that the Baltic rail freight operators do advertise the provision of such services.

Importance of the Pricing Structure

As can be seen from the sensitivity testing carried out the levels of traffic which are likely to be seen on Rail Baltica they are highly dependent on price and are also relatively dependent on the routing option selected (as this affects both the attractiveness of the journey time and the distance and therefore price). As noted previously different pricing systems are in place in each of the countries. In order to get the most out of the line a consistent and simple pricing system will be required such as is in operation for the specialised container trains provided as a joint offer to destinations such as Moscow, Odessa and Central Asia.

The policy within the tariffs of charging twice as much for a 40' as a 20' may deter a proportion of larger box intermodal traffic from using the line. Quoted prices for sea freight generally have 40' containers charged at between 20% and 60% more than 20' containers and road freight operators charge the same for both. The use of 40' containers has generally been rising for many of the flows likely to be attracted to Rail Baltica therefore this issue is likely to become more rather than less important in the future. Quoted prices for Estonian rail freight do not indicate a 2:1 differential therefore it is assumed that there may be some flexibility in this tariff structure.

Imbalanced Flows

The imbalance in northbound and southbound traffic predicted within the model may affect the potential volumes available on the sections through Latvia and Estonia in particular as it is unlikely that a backload will be able to be found for much of the potential traffic (roughly twice as much demand is predicted northbound as southbound). This could lead to increased costs for the freight operating companies and therefore tariffs may be higher.

Case Study Analysis Showing Key Aspects Relating to the Future Success of the Rail Line

The case studies below provide examples of the key aspects likely to influence the future success of the rail line. The case studies are drawn from across Europe and illustrate in a practical manner how the various factors can combine to provide a successful rail freight line.

CASE STUDY – New North-South Rail Services

DB Schenker is to run new European services on north-south corridor

DB Schenker is investing heavily across Europe for example it is building a new hub in the northern suburbs of Helsinki and some port terminals in Poland. Also it is offering new pick-up and delivery services by its' Swiss subsidiary, Hangartner, which will be handled by truck, transferring to rail for the middle leg of the journey. The company said the flexibility of intermodal services is useful where trucks cannot be used, such as during weekend or Sunday driving bans or because of tunnel restrictions. The company is offering the new service on a north-south corridor between Finland, Sweden, Norway and Central Europe to Italy. Its intermodal operating centre in Zürich will operate around 4,000 block trains a year on regular scheduled services several times a week on fixed routes. DB Schenker said: "We would like to get more shipments onto rail. We are combining the flexibility of the truck with the benefits of rail transport, which will also have a positive impact on the environment."

CASE STUDY – Rail Connectivity to Ports is Important

Port of Gothenburg shows the way with rail

Road has for a long time been the conventional mode of transporting goods but recently the Port of Gothenburg has significantly increased the proportion of traffic moving by rail. At a time when the rest of Europe is struggling to make rail transport more successful compared to road, the proportion of the port's hinterland traffic moving by rail recently reached 60%. Six years ago it was just 23%. In comparison, Hamburg's proportion last year was 33%, and it was second only to Bremerhaven in terms of rail access in northern Europe. Gothenburg's success stems from the electrification of its port railway infrastructure in 2005, and the dominance of Maersk Line, which remains very pro-rail and is expected to carry around 75% of the port's total traffic moving by rail. Gothenburg handles around 70% of Sweden's total container traffic and currently offers 24 rail shuttle services. It is not clear how these have helped the port to grow its container traffic, but its rail traffic increased by 5.2% in the first half of the year, up to 183,000TEU. Last year the gateway's total container traffic reached 862,500TEU, including cargo staying in the port area or awaiting transhipment.

CASE STUDY – Rail Freight needs to be Responsive in Operations and Pricing

Port of Rotterdam Modal Split 2009

Last year rail transport declined from 13% to 11% and is back at the 2006 level. Road transport fell from 57% to 56%. Rail transported 755,000teu, down 25% on 2008, while and truck volumes dropped 14% from 4.47 million teu to 3.84 million teu. The port reported that rail transport did not want to adapt, or could not adapt its tariffs, fast enough to arrest the declining total volume. Betuweroute tariffs, for example, were lowered only in late 2009. The goal is to realise a modal split in 2035 of inland shipping 45%, rail 20% and road 35%.

CASE STUDY – Lessons from a New Freight Railway

Betuweroute, a new European Corridor running through Holland

The Betuweroute is a 160km long double-track freight railway and was one of the largest infrastructure projects in the Netherlands. Construction started in June 1997 and on its completion in 2007 it had cost 4.7bn euros, significantly more than was originally estimated. It was designed to link Rotterdam with Zevenaar on the Dutch/German border and may accommodate trains of double stacked containers in the future as operated widely in USA. In June 2010 the Port of Amsterdam was connected to the Betuweroute. The first train from Amsterdam consisted of 48 four-axle coal hoppers wagons with a total weight of 4,400 tons and was hauled by two locomotives (DB Schenker) due to it being one of the heaviest trains in the Netherlands. Due to the closure of many German coal mines, the country is reliant on imported coal and some of this is coming through Dutch ports. The new line has had problems apart from the overspend including major environmental opposition, complex non-standard equipment and the fact that the Germans have not yet invested in the 60kms connecting line in their country which would have improved overall journey times. Originally by this year (2010), it was predicted that up to 10 trains an hour, travelling at an average speed of 100 km per hour, would use the line. Keyrail, the operator, aimed at reaching a traffic level of 900 trains / week by 2013 in order to be profitable. Recently the number of trains using the Betuweroute recorded by Keyrail has increased considerably to 320 trains/week and they hope to reach 350 trains / week by the end of the year; still significantly below their target but at least it is growing.

CASE STUDY – Change in Supply Chains can be achieved with Cooperation

Flowers and plants with Shortsea from Holland to Finland

Flowers and plants are mainly distributed in Europe by truck, often in driver accompanied temperature controlled vehicles. At the initiative of the VGB (the wholesale trade organisation for flowers and plants in the Netherlands) some flowers and plants have been shipped from Rotterdam to Helsinki, Finland by a shortsea operator Containerships vessel. The plants were shipped by exporter Fertiplant through logistics provider DSV. The flowers were loaded in a reefer container which had a tracking and tracing system using a TraSec BV control unit that continually monitored the temperature to ensure the products arrived in excellent condition. The goods left on a Friday and by Monday the container arrived in the Finnish capital after a sea journey of 4 days. By truck it takes two days to arrive in Helsinki. The door to door shortsea trip saved approximately 20% in transport costs. The trial shipment by sea is part of a project "Containerisation and Conditioning in the Floriculture (CoCos).

CASE STUDY – Rail Freight Competition is Important

Channel Tunnel operator, Eurotunnel has bought the third largest UK rail freight operator, GB Railfreight (GBRf) to compete with Captrain (SNCF Fret) and DB Schenker

Eurotunnel has bought GBRf, the third largest UK rail freight operator and said the deal was in line with its strategy of developing a leading position in the European rail freight market. The company already owns Veolia Cargo France and these will complement the services offered by Eurotunnel's rail freight subsidiary, Europorte. The acquisition would allow Eurotunnel to offer new services for intra-European cargo currently travelling on the roads. The company said that growing concerns about the environment and the increasing need for freight transport over both long and short distances mean that rail freight is a buoyant market. Environmental pressures and the increasing cost of fuel would make rail freight a more attractive mode of transport in the future.

CASE STUDY – Russian Railways Expansion Plans have Competing Routes

Between 2003 and 2008, Russian Railways (RZD) carried an annual average of 1.3 billion tonnes, equivalent to a 43% share of the national freight market in terms of tonne-km. RZD's growth strategy, 'Strategy for Railway Development up to 2030', envisages that freight volumes will increase by 70% and passenger traffic by 30% between now and 2030. One of the main objectives is to integrate Russian Railways more closely into the European rail network, and promote the development of international transit corridors. This will improve rail's competitiveness against road and sea for freight and against air for passengers. One of the new schemes is for a Moscow - St Petersburg high speed line which could be built by 2015 which will release some capacity on the existing routes for additional freight trains.

Eurasia Rail Logistics (ERL) has been founded in Moscow as a joint venture of Railion Deutschland, RZD Russian Railroads, PKP Cargo (Poland) and Belarus Railroads, with the aim of improving rail freight transport on the corridor between Germany and Asia via Russia. ERL aim to optimise the legal, operational, technical and commercial conditions of rail freight transport on pan-European Corridor II (Germany-Poland-Belarus-Russia, with an extension to Asia), in order to improve the quality of services and come up with more attractive transit times and pricing for customers.

Russian Railways (RZD OJSC), together with the transport authorities in Austria, Slovakia and Ukraine have signed an agreement in 2010 for the construction of a broad-gauge railway line between Kosice (Slovakia) and Vienna (Austria). The railway project will connect the rail network of Central Europe with the Trans-Siberian network. The implementation of this project will bring transit traffic on the Asia - Russia - Central Europe route and help boost the competitiveness of rail transport compared with shipments by sea or road transport. According to estimates, the transport volume on the Kosice – Bratislava line could reach 23.7 million tonnes by 2025, and 18.5 million tonnes on the Bratislava – Vienna line. The planned route to Europe will carry both containers and raw materials and the reverse route will carry containers. According to preliminary estimates, the cost of the project could exceed EUR 4.7 Billion. This along with other international projects of Russian Railways, are to be a centre of gravity for other areas of business, cumulatively forming a powerful trade and transport system. This will prove to be a catalyst for effective cooperation between 1520 mm and 1435 mm gauge railway systems, between countries of the European Union and Russia.

CASE STUDY – The Interoperability of Freight Corridors

Corridor F improves transport between Eastern and Western Europe via Warsaw



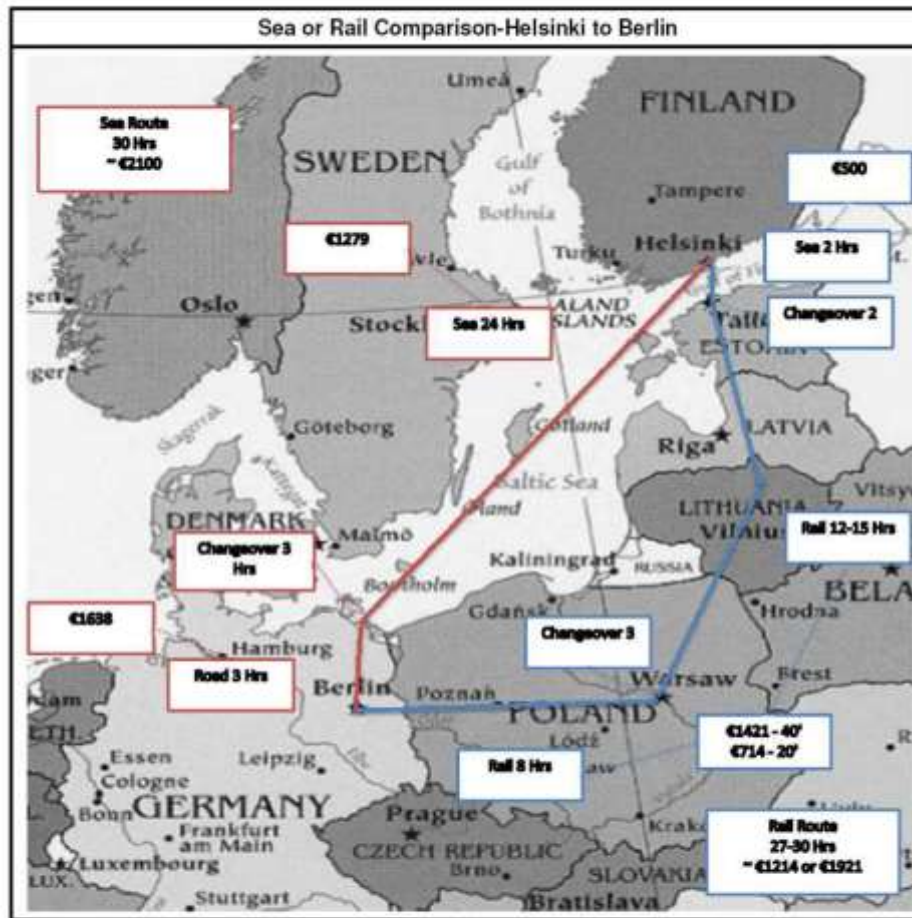
The European integration of rail freight transport requires a completely functional and integrated European transport network. This means less traffic delays for freight transport operators and definitely less time at border crossings. The interoperability of freight corridors depends to a great extent on the European Railway Transport Management System (ERTMS). Therefore, in 2006, the European Commission established six rail transport corridors to be equipped with the ERTMS, lettered from A to F. In 2009, it was established that rail freight transport needs are particularly addressed on these corridors. The relevance of this is that Corridor F connects to Rail Baltica at Warsaw giving good connectivity.

Corridor F has been developed to ease cargo transit on one of the most important routes which crosses Europe from East to West. The corridor connects Terespol (at the border of Poland with Belarus) via Warsaw, and it has been recently decided to expand it to the ports of the North Sea, Antwerp/Zeebrugge and Rotterdam. This step was taken after the intensification of commercial flows between the Netherlands, Belgium, Germany, Poland and the countries of former USSR and Asia. The route has been defined based on traffic and trade prospects, but also because it is the most convenient East-West route in Central Europe. The development of this corridor is mainly tasked with encouraging modal shift from road to rail goods transport, as well as reaching EU's sustainable development targets. The six freight corridors to be entirely equipped with the ERTMS benefit from the financial support of the European Commission.

Apart from the EUR 260 Million already established funds, an additional EUR 240 Million have been granted from TEN-T co-financing funds. Although these corridors represent only 6% of the TEN-T length they carry 20% of European freight traffic. By 2015, member states must equip important sections of the six corridors (over 9,000 km) and by 2020, these corridors must be completely equipped (an additional 5,500 km) and a number of key freight terminals should be connected to the six routes (nearly 10,000 km). Works on a pilot line have already been initiated in Poland in 2009 and rail undertakings will also have to equip vehicles. To facilitate freight traffic between West and East, connections with other ERTMS corridors will also be accelerated, which will stimulate not only the efficiency and competitiveness of the entire traffic corridor. According to a CER study by McKinsey on the development of rail freight corridors, investments of EUR 145 Billion by 2020 could increase the capacity of rail transport by 72% on the six ERTMS-based rail freight corridors, representing 34% of the volumes carried in Europe. The overall modal share of rail could increase from 17% to 23% and such investments in rail infrastructure will eventually lead to a strengthening of combined transport.

CASE STUDY – Modal Comparison

This map below shows the calculation of time and cost for a journey from Helsinki, Finland to Berlin, Germany by two alternative routes; overland using rail, or by sea.



For sea and road costs and times are based on current observed data. Rail timings are based on Rail Baltica predictions, costs are based on the cost of transit by rail in Latvia applied to the entire length of the route. This comparison shows the benefit of the new proposed railway in terms of time and cost.

Gauge and Transfer Facilities

Railway tracks in Europe have three basic gauges. Most countries, including Poland, use a 1,435 mm span, but Lithuania, Latvia, Belarus, Russia and Finland have predominantly 1,520 mm while Spain and Portugal have 1,688 mm. Rail Baltica will be compliant with the relevant TSI's and the track width will be built to European gauge 1435mm. The overall gauge will have the capability of carrying all forms of container and 'trailer on wagon' traffic to give it a strong freight capability.

Because of the differences in gauge there are "gauge transfer facilities" at border-crossings when either rail cargo is reloaded or bogies are changed, either way boosting costs and adding delays. Changing the bogies on a train can take up to 5–6 hours and require special, heavy equipment. In many cases, and especially for containerised freight, it is easier and quicker to transship boxes from one train to another instead of changing the bogies. In the case of liquids, frozen goods and hazardous materials, however, the bogies are usually changed. With Rail Baltica there will be a need for "gauge transfer facilities" at major intersections with key East – West Russian gauge (1520mm) routes, where wheel sets (bogies) either have to be changed or an alternative found. As there is likely to be limited capture of freight needing to travel on both gauges we are suggesting limiting this to one facility per country. An example of the two different gauges (Finnish/European) under one roof is in the SeaRails reloading terminal in Turku harbour, Finland. In this terminal they can conveniently reload goods from wagon to truck or vice versa and from train to train.

It is recognised that there are several alternatives including the SUW 2000 system that allows automatic wheel span adjustments on rolling stock, enabling trains to travel over different-gauged tracks. The device is regularly used on some Polish-Lithuanian services and the system cut border crossing times for Warsaw-Vilnius passenger trains from 140 to 60 minutes.

It is likely that at these interchanges warehouses and distribution facilities should be sited. In addition some goods will transfer to lorry for local delivery. The South to St Petersburg direction connection is the most likely to be completely justified due to volumes on this route.

4.5.2 Core Business for Passenger Traffic

The passenger market for any future Rail Baltica service will be composed of two key elements:

1. Existing Demand which has moved to Rail Baltica from an existing alternative mode of transport; and
2. Induced Demand which will be generated by the availability of new or reduced cost (in terms of travel time) travel options.

In the analysis of existing passenger demand section we have identified the existing volume of trips on the potential rail Baltica corridor between key cities for all modes. This includes demand internal to the Baltic States and transit trips, and indicates the total existing demand which is potentially inscope of the Rail Baltica Corridor. The volume of passengers that use the new service will, however, depend upon the characteristics of the new rail service relative the existing modes.

For existing trips to transfer, Rail Baltica will have to provide a more attractive service than the existing alternatives. We have discussed in the supply of transport services section the relative qualities of the existing modes of transport for key movements in the corridor. The transport model will be used to assess the impacts of these various variables by calculating the volume of current users who will shift to Rail Baltica reflecting the specific balance between the existing service characteristics and those of the new alternative. The share of the existing demand that will shift to Rail Baltica will therefore vary by movement and will depend heavily upon a number of the service characteristics of the new Rail Baltica service. These service characteristics include:

- Service Objective: to what extent is the service an 'international' service and to what extent is it providing for movements within the Baltic States themselves. This will need to be considered with regard to the fact that existing international demand is relatively low with a constraint due to border crossing and language differences; and that existing demand within the Baltic States is much larger providing a larger potential market for Rail Baltica.
- Route: there is a balance between routing via the larger population and economic centres, thus accessing a larger potential market, such as Tartu in Estonia, and the subsequent travel time increases this causes for transit trips
- Journey time: line speeds will heavily influence the attractiveness of Rail Baltica as an alternative to existing modes.
- Fare: the price of tickets on Rail Baltica relative to alternative modes. There is a balance between maximising revenue at the expense of patronage and maintaining higher passenger numbers with lower fares.

5 Economic, Environmental, Regulatory and Technical Constraints

5.1 Economic Constraints

5.1.1 Government Funding

In 2009 the government debt in Lithuania was 7,85 billion EUR (28% of GDP), in Estonia it was 0,92 billion EUR (7.2% of GDP) and in Latvia it was 6,8 billion EUR 36.1% of GDP. In 2009 the government deficits in percentage of GDP were -8.9% in Lithuania, -1.7% in Estonia and -9.0% in Latvia. This is an important economic constraint on the development of the Rail Baltica project, as the situation in the government budget will affect the decisions about the necessary minimum of 15% co-financing made by each of the Baltic State authorities. In case of Latvia, all the financing decisions made by the governments needs to be aligned with the agenda set by the International Monetary Fund at the moment, which might put an extra restriction to proceed with the Rail Baltica project. If Latvia manages to start repaying the debt gradually, the coordination with the IMF might be less of a problem. Meanwhile, Lithuania has borrowed both in the domestic and foreign market, to finance their government debt, which also imposes extra control over the decisions in the government.

Further, each of the Baltic States still have differing currencies, which imposes currency and exchange rate risk. In January 2011 Estonia joined the Euro zone; Latvia and Lithuania is planned to join in 2015. Nevertheless, the join of Latvia and Lithuania is still uncertain and depends on the economic development of the countries.

5.1.2 EU Funding

The current EU budgetary period is 2007 – 2013 and serves as a benchmark for further comprehension of the operations of these funds. The next EU budgetary period is planned to be 2014 – 2020.

5.1.2.1 Financial Management

Although the Structural Funds are part of the EU budget, the way they are spent is based on a system of shared responsibility between the European Commission and the member state authorities:

- The Commission negotiates and approves the National Strategic Reference Framework and Operational Programs proposed by the member states, and uses these as a basis for allocating resources.
- The member states and their regions manage the programs. This includes implementing the Operational Programs by selecting individual projects, controlling and assessing them.
- The Commission is involved in overall program monitoring, pays out approved expenditure and verifies the national control systems.

Financial management of the EU funds

There is a general rule that EU funds can each finance in a complementary and limited fashion actions falling within the scope of the assistance of another fund (this is limited to no more than 10% of the resources allocated by the Community to each priority area of an operational programme). The exception to the rule "One programme = one fund" is that the ERDF and the Cohesion Fund intervene jointly for programmes covering infrastructure and environment.

Multiplication of the Rail Baltica project:

- Cohesion fund:
 - o Trans-European Transport Network (TEN-T)
 - Latvia
 - Lithuania
 - Estonia
- European Regional Development Fund (ERDF)
 - o Baltic Sea Region
 - o Cross border cooperation programmes:
 - Estonia – Latvia – Russia Cross Border Cooperation Programme
 - Estonia – Latvia Cross Border Cooperation Programme
 - Latvia – Lithuania Cross Border Cooperation Programme
- Joint Assistance to Support Projects in European Regions (JASPERS)

The project budget should be divided between the involved countries. It is necessary to apply for funds in each country separately as to benefit each separate infrastructure.

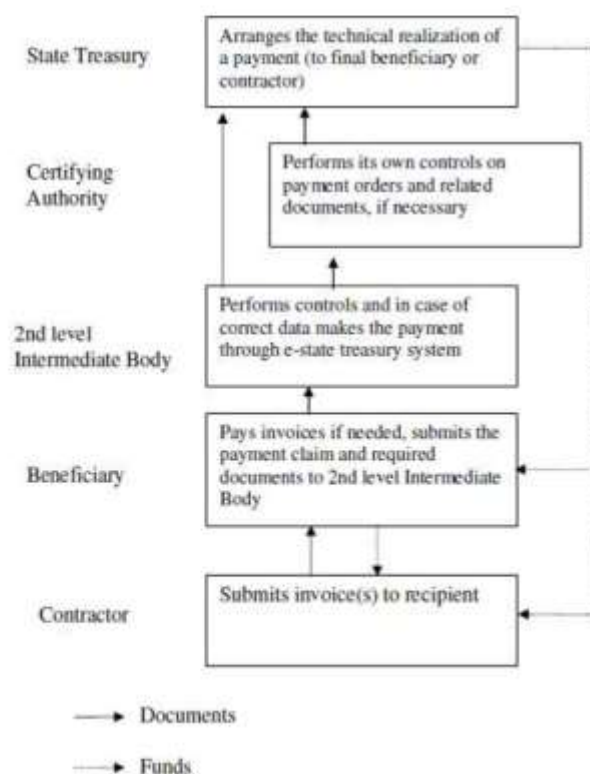
Within Cohesion fund and ERDF it should be pre-specified if it is acceptable to acquire funds from more than one sub-project (e.g. Baltic Sea Region and Cross border cooperation programme).

JASPERS is designed as support for ERDF and CF funded projects.

Cohesion policy 2014 -2020 timetable

- July 2010: Budget Review
- November 2010: 5th Cohesion Report
- December 2010: Cohesion Forum
- Early 2011: Proposal for Financial perspective
- Spring 2011: Legal proposals, impact assessment
- 2012/13: Adoption of legislative package
- 2014: Entry into force

The general scheme of payments for the Operational Programme



5.1.2.2 Available financing in 2007-2013

In order to grasp the scale of available funding, EU budgetary period 2007-2013 is used as a benchmark.

TEN-T

Co-financing rate: 85.00%

Full funding of the fund for Latvia **856 966 451 EUR**

Co-financing of Latvia 151 229 374 EUR

Full funding of the fund's Priority 5 in Lithuania **1 279 372 469 EUR**

Funding specifically for Railways (TEN-T) in Lithuania 535 359 806 EUR

Co-financing of Lithuania 191 905 871 EUR

Full funding of Priority 3.3 in Estonia **618 114 459 EUR**

Co-financing of Estonia 92 717 169 EUR

Latvia–Lithuania Programme

EUR 60 million.

Co-financing rate: 85%

Estonia – Latvia Programme

Maximum amount available: **5 074 064 EUR**

Co-financing rate: 85%

The co-financing share from the Programme depends of the status of the partner – private companies can receive 50% of their share in the project budget, whereas public, public equivalent and NGO partners can receive 80-85% (depending on the support priority).

Estonia – Latvia – Russia Cross Border Cooperation Programme

Total funding: **EUR 47 million**

Co-financing rate: 90%

Co-financing from private enterprises' is min 50%.

Total = **236,6 MEUR**

Co-financing rate

Over 230 million euro earmarked by the European Commission and the Government of Norway will cover:

- up to 75% of eligible project costs generated by partners from Denmark, Germany, Sweden, Finland
- up to 85% of eligible project costs generated by partners from Estonia, Latvia, Lithuania and Poland
- up to 50% of eligible project costs generated by partners from Norway
- up to 90% of eligible project costs generated by partners from Belarus

JASPERSA new technical assistance partnership

In the smaller countries where there will not be many projects of this size, JASPERS will concentrate on the largest projects.

5.1.2.3 Forecasts of the EU Structural Funds budgetary period 2014 -2020

According to the Baltic Sea Region 'European Territorial Cooperation post 2013 – Position Paper', after 2013 programmes should be targeted on a small number of intervention areas rather than offering a little bit of everything.

A clear EU focus should be related to place-based issues. The three strands tend to have different focus: cross border cooperation is clearly place-based with a local focus; transnational cooperation is a mixture of place-based needs and EU priorities, whereas inter-regional cooperation is solely based on EU priorities. Macro-regional strategies may apply to all of them horizontally, whenever appropriate.

The European Commission has identified four overall challenges to guide the Baltic Sea Strategy: 1) to create a sustainable environment, 2) to increase prosperity, 3) to increase accessibility and attractiveness, and 4) to improve safety and security in the region. The Strategy builds on the fundamental idea that no new institutions are to be created, no new budget funds are to be allocated and no special legislation is required. Instead, concrete results are to be achieved through deeper cooperation with existing institutions and resources.

Cohesion Fund

According to the Community of European Railway and Infrastructure Companies (CER), the EU regional development policy might face an uncertain future because member states that pay more than they receive are likely to put severe pressure to reduce spending compared to the 2007-2013 period.

To improve Cohesion Fund efficiency the European Commission proposes a reform of Cohesion Policy for the upcoming EU budgetary period, which would be organised around the following four main improvements: reinforcing strategic programming

and concentration of resources; strengthening performance through conditionality and incentives; evaluation, performance and results; and new financial instruments.

These aim at decisively orient the policy towards results; obliging Member States and regions to prioritise investment and orient it toward growth enhancing areas; and ultimately improving the accountability and responsibility of Member States and regions.

Cohesion Policy needs to be closely coordinated with the Europe 2020 strategy. This coordination requires, first of all, clearer guidance at European level and a more strategic negotiation process and follow-up.

One of the proposed actions by the Commission is to adopt a Common Strategic Framework delineating a comprehensive investment strategy, which translates the targets and objectives of Europe 2020 into investment priorities for Cohesion Policy.

Furthermore, the Commission plans to introduce new forms of finance for investment, to move away from traditional grant-based financing and to look for innovative ways of combining grants and loans. Current examples of new financing forms are JEREMIE, JESSICA, and macro-finance initiatives. These instruments contribute to change cultural attitudes toward public intervention, by decreasing dependence on public support, promoting risk taking, and strengthening leverage of public resources. Moreover, they ensure that schemes supported by Cohesion Policy add rather than replace existing banking and other private investment opportunities.

TEN-T

The Community of European Railway and Infrastructure Companies (CER) favours the Commission's future TEN-T planning approach and the development of a core network as the essential part of the future TEN-T structure. According to "CER Response to Commission Working Document on Future TEN-T Policy", planning the core network according to future traffic flows (passenger and freight) as the main criteria is an economically sensible and realistically quantifiable starting point.

However, CER would prioritize the criteria for identifying the core network as follows:

Priority 1: Improving the environmental and safety performance of the transport sector;

Priority 2: Promoting European socio-economic cohesion;

Priority 3: Strengthening the overall European economic development

Priority 4: Removal of bottlenecks / missing links

Priority 5: Improving the efficiency of the network.

Bearing in mind social and demographic differences in some of the new member states (less agglomeration, more rural), special efforts are needed to connect the infrastructure networks in the new member states with that in the "old Europe".

In order to implement the future TEN-T policy and to complete the priority projects, a proper and adequate EU budget is a necessary precondition. CER believes that Member States should be provided with more incentives to invest in transport infrastructure by increasing the EU cofunding rate for TEN-T projects and by raising the EU TEN-T budget to €30 billion in the next financial perspectives 2014-2020 (In the budgetary period 2007-2013 the TEN-T budget was €8 billion).

Baltic Sea Region

Sweden is currently coordinating a transport study "Baltic Transport Outlook 2030" that will cover all modes of transport and both passenger and goods traffic. It is a joint project between the transport authorities in the Baltic Sea region. The study is intended to function as a basis for future cooperation between the Baltic Sea countries in the transport area and must be completed by autumn 2011.

European Union Strategy for the Baltic Sea Region - Action Plan: "Facilitate efficient overall Baltic freight transport and logistics solutions by removing non infrastructure-related bottlenecks, promoting inter-modal connections, developing the Green Corridor concept through the implementation of concrete projects, developing infrastructure, supporting logistics service providers, establishing harmonised electronic administrative procedures, harmonising control procedures.

5.1.2.4 Management of funds

The bureaucracy and process of employing the aforementioned EU funds are symmetric in all three Baltic States. They differ considering differences in government and institutional structure.

The following institutions are responsible for the management of EU Structural Funds in each of the Baltic States:

In Latvia

- Managing Authority – Ministry of Finance
- Audit Authority – Ministry of Finance
- Paying Authority – State Treasury
- Certifying Authority – State Treasury
- Responsible Institutions – Ministry of Transport, Ministry of Regional Development and Local Government
- Co-operation Institutions – Central finance and Contracting Agency, Investment and Development Agency of Latvia
- Monitoring Committee – Included regions, NGOs, social partners, SMEs
- Procurement Monitoring Bureau

In Lithuania

Support Administrating Institutions (Managing, Paying and Intermediary):

- Ministry of Finance
- Ministry of Transport and Communications
- Information Society Development Committee under the Government of Republic of Lithuania
- Ministry of Economy

EU Structural Funds' Support Implementing Institutions:

- Central Project Management Agency (CPMA)
- Transport Investment Directorate (TID)

Other Institutions Involved in National Support:

- Lithuanian Development Agency
- Lithuanian Innovation Centre
- National Regional Development Agency (NRDA)
- Social and Economic Development Centre (SEDC)
- Agency for International Science and Technology Development Programmes
- CSC Investments and Business Guarantees – INVEGA

In Estonia

Managing Authority, Auditing and Paying Authority

Ministry of Finance

Implementing Authorities and/or Intermediate bodies:

Economic Affairs and Communications Ministry

The Ministry of Interior

Technical Surveillance Authority

Maritime Administration

Road Administration

State Chancellery

Economic Development Operational Programme, Ministry of the Environment

Tallinn Airport

Final beneficiaries:

- Central and local government institutions
- Private companies and natural persons
- Local governments
- NGOs
- Regions

Cross border cooperation programmes

Project partners can be:

- local and regional public authorities;
- national institutions;
- public equivalent bodies such as educational, business support, culture, social organisations, associations, development agencies, etc.;
- non profit non-governmental organisations.

Baltic Sea Region

Responsible national authorities:

In Latvia:

- Ministry of Regional Development and Local Governments
- State Regional Development Agency

In Estonia:

- Ministry of the Interior, Department of Regional Development
- Ministry of Economic Affairs and Communications

In Lithuania:

- Ministry of Interior of Lithuania

Who can apply?

- Public authorities from national, regional and local levels
- Public equivalent bodies (e.g. research and training institutions, business development institutions and other non-profit organisations)
- Private (commercial) organisations as additional partners with own financing
- Within limits, programme funds can be applied for by partners from outside the eligible area

Partners from other EU and non-EU areas may join individual projects and benefit from the programme funds (under certain conditions)

5.1.2.5. Summary and Recommendation

Currently, there is no singular EU fund that would be legally allowed to support all the included stakeholder countries together (Latvia, Estonia and Lithuania, as well as neighbouring countries of the Baltic States - Finland, Russia, Belarussia and Poland) without a multi-national cooperation agreement in which a leading partner is identified. Article 4 of Regulation (EC) No 680/2007 defines general rules for the granting of EU TEN financial aid. An application for EU financial aid should be submitted to the Commission by one or more Member States, with the agreement of the MS concerned, by international organizations, joint undertakings, or public or private undertakings or bodies.

Usual practice in infrastructure projects in Eastern Europe (that are financed through EU structural funds - ERDF) is that:

- (1) all countries involved nominate a leading partner (the one who can be considered as a final beneficiary), who is responsible for submission of application form and provides overall project management for the whole project and implements project in its domicile country;
- (2) Partners establish a Programme Steering Committee (PSG) and an Integrated Programme Organization (IPO) that act as project management team on behalf of the leading partner;
- (3) The IPO can prepare the grant, but it has to be signed either by a leading partner or by all partners that may be considered as a final beneficiaries

Furthermore, it should be emphasized that right now there are only forecasts of the allocation and management of the EU co-financing for the 2014 - 2020, as well as the structure of EU funding programmes. The available information about the next EU financial period varies and is not yet reliable. However, the uncertainty of the funding allocation for the next financial period of 2014-2020 can be used in the interests of Rail Baltica. By increasing the awareness of the necessity of Rail Baltica, the funding can be allocated in the most beneficial way for infrastructure of the Baltics.

5.1.3 Human resource and immigration strategies

It is very important to take into account the total scope of emigration/immigration and natural population increase/decrease trends in Baltic states. These trends construct the environment in which migration issues are discussed in Baltics. Baltic states have been a countries of emigration since independence in 1990. According to Eurostat Baltic states have one of the biggest negative net migration populations (per 1000 persons, data for 2009) – Lithuania – (4,7), Latvia – (2,1), Estonia – (0).

The outflows exceeds inflows several times. It should be noted that even during times of economic growth, Baltic states lost more residents due to emigration than it received due to immigration. Immigration remains feeble and is not able to compensate the losses caused by emigration. This situation along with negative birth rate in all Baltic countries has led to situation noticed in Chapter No. 4.1.1.

Recent discussions in Baltic states indicate that attitude to immigration becomes quite pragmatic (also on political level) and is based mainly on economic considerations. Immigrants often are perceived as a resource for economic development of Baltic states. Municipalities in Baltics are directly subjected to consequences of emigration and bad demographic trends that adversely affect regional development. It is expected that labour shortage may hamper successful attraction of investments and adversely affect national budgets and welfare of local residents. The opinions of employers show the need for immigrants because they can offer specific knowledge and skills which local employees do not possess. Also employers often foresee labour shortage as an obstacle to economic recovery.

The main strategic goals for all Baltic states for the next decade seems to be quite similar:

- (1) to reduce emigration of residents in order to strengthen the economic welfare of the countries through economic, educational, social and cultural factors;
- (2) to increase the involvement of the local workforce in the labour market (increasing the level of participation of the local workforce through promotion of internal labour mobility and labour flexibility);
- (3) to promote the return of economic migrants;
- (4) to attract workers from third countries (simplified recruitment process of foreigners who are in shortage in Baltic states, changing family reunification procedures, increasing attractiveness of Baltic states).

In accordance with the White Paper "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system":

- (1) human resources are a crucial component of any high quality transport system. It is known that labour and skill shortages may become a serious concern for transport in the future. Therefore, it might be necessary that for Rail Baltica project there is a need to strengthen capacity of persons who will be responsible for running Rail Baltica. This can be done either by building local knowledge or by allowing persons from other countries to join companies associated with Rail Baltica;
- (2) new transport patterns must emerge, according to which larger volumes of freight and greater numbers of travellers are carried jointly to their destination by the most efficient (combination of) modes. Future development must rely on a number of strands: "... advanced logistic and market measures such as full development of an integrated European railway market".

5.2 Environmental Constraints

5.2.1 Noise

Noise has to be considered on two levels. Firstly there are the source noise levels and then secondly there are the noise levels at the building facades which are used to determine the mitigation measures required. The European Directive 2001/16 Interoperability of the trans – European conventional rail system prescribes noise limits for rolling stock in the following categories:

- Stationary Noise
- Starting Noise
- Pass by noise
- Interior Noise

Currently in the specific case for Estonia, Latvia and Lithuania these noise limits do not have to be complied with as a series of measurements are being carried out in the three countries that will lead to a revision to the TSI. By the time the line is constructed compulsory noise limits will have been established.

The limiting noise values, as measured at the building facades, are different in Estonia, Latvia and Lithuania. In general the levels vary between 35 dBA for residential and other critical areas at night to 50 dBA during the day.

5.2.2 Emissions Limits

The emission limits are based on the requirements of EU Directive 2004/26/EC as amended by the Corrigendum to the Directive 2004/26/EC dated 25 June 2004. The limits are expressed in the tables below for Carbon Monoxide, the sum of Hydrocarbons and oxides of Nitrogen and particulates.

Table 40 - Locomotive Engines

Category: Net Power (P kW)	Carbon Monoxide CO (g/kWh)	Sum of hydrocarbons and oxides of nitrogen (HC + NO _x) (g/kWh)	Particulates PT (g/kWh)
RC B: 130 kW < P	3.5	4.0	0.025

Table 41 - Railcar Engines

Category: Net Power (P kW)	Carbon Monoxide CO (g/kWh)	Hydrocarbons HC (g/kWh)	Oxides of Nitrogen (NO _x) (g/kWh)	Particulates PT (g/kWh)
RC B: 130 kW < P	3.5	0.19	2.0	0.025

5.2.3 Protected Territories

Within the Baltic States there are a large number of Natura 2000 sites. Natura 2000 is the main part of EU nature & biodiversity policy. It is an EU wide network of nature protection areas established under the 1992 Habitats Directive. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive (SCI), and also incorporates Special Protection Areas (SPAs) which are designated under the 1979 Birds Directive. Wherever possible in the development of the route options these areas should be avoided.

5.2.4 Sustainability Targets

All three countries have long term national strategies setting overall targets for sustainable development. These documents are consistent with EU Sustainable Development Strategy and intended to implement EU sustainability targets at the national level.

ESTONIA

Estonian National Strategy on Sustainable Development, 2030 sets the following overall sustainability target:

"the country should be successful in global competition with sustainable development model and preservation of the traditional values of Estonia."

Specific sustainability targets are:

- Visibility of the Estonian cultural space,
- growth of welfare,
- coherent society,
- ecological balance.

LATVIA

Sustainable Development Strategy of Latvia, 2030 sets the following sustainability targets/vision:

- happy people in prosperous country,
- sustainable and healthy lifestyle,
- creative, tolerant and "youthful" society,
- cooperation based competitiveness,
- the state as partner in responsiveness and adaptivity.

LITHUANIA

Lithuanian National Strategy for Sustainable Development, 2020 sets the following overall sustainability target:

"achieve the present developmental level of EU countries by 2020, according to indicators of economic and social development as well as the efficiency in consumption of resources, and not to exceed allowable EU standards, according to indicators of environmental pollution, while meeting the requirements of international conventions in the field of minimization of environmental pollution and input into global climate change."

5.3 Regulatory Constraints

The key regulatory constraints cover the following areas:

- Planning
- Land Expropriation
- Setting of Tariffs

The subsequent paragraphs give a summary of the procedures and issues involved however a detailed explanation is contained in Appendix C.

5.3.1 Planning

The planning process is broadly similar in all three Baltic States with three levels of planning starting at National or State level and going down to the detailed plan level. In Estonia for a railway the middle planning level, the municipality level is not required for a new railway.

If the new route could be constructed in such a way that no additional land is required or the land use of land adjacent to the railway is not changed in any way then it is not necessary to go through the planning process.

The time taken to complete the planning process is different in all three countries but in the worst case could take in excess of seven years. In some European countries the designation of a project as being in the 'national interest' allows a reduction in the planning process but that is not the case in the the Baltics.

5.3.2 Land Expropriation

In all three countries the process of land expropriation can only be instigated by the state or under certain circumstances by the municipalities. The process can only be started once the plans justifying the need for the land have been approved. Each country has a well defined expropriation process and whilst there is no overall defined timeframe, historically in Estonia the process can take between 2 – 2.5 years.

5.3.3 Setting of Tariffs

ESTONIA

Infrastructure access fee

Entity setting the infrastructure usage fee

Currently the infrastructure usage fee is determined by the Estonian Technical Surveillance Authority (the Regulator), a state authority independent from market participants. The Regulator determines the tariffs to ensure non-discriminatory access to the public railway as currently the infrastructure managers belong to the same group as the train operators.

Legal basis and aim of regulated tariffs

The Tariff is determined on the basis of the Railways Act and the national methodology for calculation of the railway infrastructure usage fee (the Methodology).

The Tariff comprises the costs of giving the railway infrastructure into use and of a reasonable commercial profit.

Separate tariffs

Separate tariffs are determined for main services, additional services and ancillary services (scope of these services is similar, but not identical to the catalogue provided in Annex II to Directive 2001/14/EC).

Tariffs for main services and additional services include the costs of giving the railway infrastructure into use and of a reasonable commercial profit. The tariffs for ancillary services include costs, but profits only if multiple ancillary service providers exist.

Structure of total cost base

The cost base (Total Cost Base) for determining the Tariff is the sum of the following components:

- Operational cost of the respective service (direct costs and proportional part of overheads);
- Depreciation allowance calculated from regulatory value of [i.e. value of necessary investments at cost (no revaluations are taken into account)] the regulatory asset base;
- Reasonable profit [regulatory (not market based) WACC applied to the value of the regulatory asset base.

Components of the Tariff

The Tariff consists of two components:

- Fixed part calculated based on reserved train kilometres (effectively working as reservation charge);
- Variable part calculated based on actual gross ton-kilometres (=weight of train in tons multiplied by the covered distance in kilometres).

The Fixed part is payable based on train paths reserved by (allocated to) a train operator in the capacity allocation process irrespective of whether the paths are used. Therefore the fixed part also works as a reservation charge.

The fix part must be in the range of 4.15-6.39 EUR per train kilometre and the variable part in the range of 0,00255-0,00447 EUR per gross ton-kilometre.

Overview of the Tariff levels

The following table provides overview of the average fixed and variable parts of the Tariff (adjusted) for the use of EVR Infra AS infrastructure (majority of the Estonian rail network) during the last timetable periods:

Table 42 - Overview of the average fixed and variable parts of the Tariff

Timetable Period	Average Fixed Part (EUR/ train/km)	Average Variable Part (EUR/ gross ton km)
2005/2006	1.625	0.002
2006/2007	1.569	0.002
2007/2008	2.302	0.003
2008/2009	5.701	0.004
2009/2010	5.236	0.004
2010/2011	4.274	0.004

Possibilities to negotiate different tariffs

The Methodology stipulates a possibility to negotiate tariffs different from tariffs determined under the rules provided above if the infrastructure manager and the train operator are concluding a contract for use of rail infrastructure for a longer period than one timetable period. In such a case the tariff to be used in the contract must be approved by the Regulator. The negotiation procedure should be used in situations where there is a need to tariffs for several years and to overcome insecurity arising from the fact that the tariffs are regulated on yearly basis. The approval will be granted based on proposals by the infrastructure manager and the train operator and economical justifications to the proposed tariff and the competition situation in the rail freight market. If the operator commits to guaranteed volume, some discounts may be available, but it should still be cost based and in line with general principles on calculating the tariff. There is no public information on such negotiated tariffs.

Possible regulatory difficulties for setting different level tariffs for Rail Baltica

In Estonia the Tariffs are determined based on actual costs of a respective rail infrastructure. So it is not contradicted, but alleged that because of the investments necessary for Rail Baltica the Tariffs for Rail Baltica will be different (presumably higher) than the current tariffs.

For mitigating risk of or allegation on cross-subsidies between existing infrastructure and Rail Baltica it may be advisable to assure that Rail Baltica is regarded as an infrastructure separate from the other infrastructures servicing East-West or other traffic, and separate tariff is determined for Rail Baltica.

Another concern is related to level of tariffs, if the current Methodology is used. Because of some features of the current Methodology aimed to keep the tariffs on low level (e.g. prohibition to calculate depreciation allowances from fair value of the infrastructure) the tariffs for Rail Baltica, if aim is to charge the total costs, may not be competitive with the tariffs for older 1,520 mm railway. Achieving competitive tariff levels may require substantial public funding.

Based on above it is recommended to conduct a simulation of possible Rail Baltica tariffs if current charging principles are applied. The simulation may reveal that the current models are not suitable for Rail Baltica and new models need to be designed, possibly demanding material changes in policy (e.g. abandoning total cost recovery in pricing).

The Methodology can be changed with a regulation of the Minister of Economics and Communication. Recently it has been done without much public debate. This allows flexibility in tariff policies for Rail Baltica; however this increases the risk of arbitrary and short-term policy decisions.

Setting of passenger tariffs

The tariffs to passengers are set by passenger train operators. These tariffs are not directly regulated and depend on the level of service, distance covered, type of ticket (single, period) etc. Also some special discounts can be available for limited groups of persons (e.g. children, students, retired persons). However the tariffs determined by the passenger train company cannot exceed the maximum ticket price and kilometre price determined by the Ministry of Economic Affairs and Communication under the

public service contract. Maximum prices are determined so that on one hand the revenue from tickets would cover reasonable part of the costs arising from the service, but at the same time maintaining the affordability of passenger train transport.

Setting of freight tariffs

The tariffs for carriage of cargo are determined by cargo train operators. These tariffs are not regulated, except general restrictions arising from the competition law (prohibition to charge excessive prices, discriminate or cross-subsidise). The cargo operators calculate exact price for carriage of particular shipment on basis of type of cargo, distance, volume etc.

Tariffs and subsidies for other modes of transport

Public transport is organised on two levels – municipality level by municipalities and national level by county governments (intra-county lines), the Ministry of Economic Affairs and Communications and the Government.

The following modes of public regular service are subsidised from the state budget:

- National train service;
- Intra-county bus lines and national non-commercial long-distance lines;
- Ship and ferry lines connecting Estonian islands with mainland (or small islands with islands);
- Air service lines connecting Estonian islands with mainland (or small islands with islands).

The following modes of public regular service are subsidised from the municipalities' budget:

- Intra-city or other national train services;
- Intra-city bus, tram, trolley-bus lines, intra-parish bus lines, lines connecting neighbouring municipalities;
- Intra-municipality ship and ferry lines.

Only public regular service lines serviced under public service contract are entitled to public subsidies. The public service contracts are awarded based on public tendering. For larger contracts public procurement regulations must be applied. The main financial criterion for selecting a successful bid is the (lowest) price of line kilometre.

The tariffs for public regular service are set by entities responsible for organising respective mode of transport on level affordable to the customers. The gap between line kilometre of the successful tender and funds received from sales of tickets are covered by subsidies. Total amounts of state subsidies are determined by the parliament in the course of adopting annual state budget.

International air services (inter alia airport services) and commercial lines (e.g. intercity express buses) are not subsidised.

LATVIA

Infrastructure access fee

According to the Railway Law, the Public Utilities Commission, in consultation with the operators of the public use railway infrastructure, develops methodology for calculating tariffs for the use of public railway infrastructure. Such methodology was developed and approved on 18 January 2006.

In principle, the tariffs for the use of public railway infrastructure as such, based on the methodology, should be calculated by the operator of the railway infrastructure. However, the Railway Law entrusts Public Utilities Commission to set tariffs in those cases when both – the operator of the railway infrastructure and the carrier are related companies. Since in Latvia this is the case because state owned company "Latvijas Dzelzceļš", who is the operator of the public railway infrastructure, is in the same holding as the carrier of cargos and the provider of international passenger carriage services, on 29 November 2010 the Public Utilities Commission has set tariffs for use of "Latvijas Dzelzceļš" public railway infrastructure for carriage.

The tariffs are set for the use of public railway infrastructure for the year 2011. The calculation for the tariff was submitted by the operator of the public railway infrastructure ("Latvijas Dzelzceļš"), and according to the approved methodology for calculating this tariff, the calculation is done on the basis of the total cost of the infrastructure, cost for maintaining and operating the infrastructure, investments in the infrastructure, taxes and duties and the correction of costs. Detailed formulas for calculating each of these elements are found in the methodology, approved by the Public Utilities Commission.

In accordance with the amendments in the Railway Law, starting from 1 January 2011 a new commercial entity had to be established which would perform the main functions of a railway infrastructure operator and among other things it would set tariffs

for the use of the public railway infrastructure on the basis of a methodology, approved by the Public Utilities Commission. However, as outlined above, for the time being the tariffs are set by the Public Utilities Commission.

Setting of passenger tariffs

Tariffs for carriage of passengers in principle are set by the carriers themselves, except, there is a methodology, according to which tariffs for services of public transportation (such as carriage of passengers by railway) shall be calculated. Carrying of passengers by railway in most, if not all, routes in Latvia is procured by the state as the public transportation services.

The methodology for calculating tariffs for carriage of passengers is not publicly available, except the methodology for calculating tariffs for services of public transportation. This methodology allows the procurer of these services to set the tariffs. If this has not been done, the carrier is allowed to set tariffs after they have been accepted by the procurer of the services of the public transportation. The methodology itself relates to carrying passengers within Latvia and mainly describes different methods, available to the carrier for setting tariffs, such as on the basis of the distance, zones, period of time etc. This methodology envisages that:

In the cases of routes of regional local importance or routes between cities, the tariff is based on the passenger kilometre and it is calculated by dividing the anticipated total costs of carriage with the anticipated number of kilometres of carriage.

In the routes within the cities the tariff is calculated on the basis of cost for carrying one passenger, which is calculated by dividing the anticipated total cost for carrying passengers in the given network of routes with the number of passengers.

Tariff for carrying luggage and animals can be disproportional to the length of a trip.

In addition it should be mentioned that according to the Railway Law the carriers of passengers get compensated from the State budget for their payments for the use of railway infrastructure for carrying passengers on inland routes. Such compensation is not available to carriers of cargoes.

Setting of freight tariffs

Tariffs for carrying of cargoes are not regulated by governmental institutions. However, for information purposes explanation of tariffs of "LDz Cargo" is available publicly.

Information about methodology of setting tariffs by "LDz Cargo" reveals that "LDz Cargo" calculates its tariff on the basis of cargo (according to the Harmonised Cargo Nomenclature), distance, type of carriage, speed, weight, type and ownership of the rolling stock, category and ownership of the container, services to be provided. Detailed algorithm for calculating the tariff is available in the Tariffs for transit of cargoes for year 2010 KTT-LV/2010.

Private freight operator's possibilities to negotiate different tariffs

As far as we are informed, one of the few private cargo carriers – "Baltijas ekspresis" – complained in the court against the set tariffs for the use of the public railway infrastructure in the year 2009. So far the court has rejected this complaint, reasoning that the tariffs are equally applicable to any cargo carrier; therefore there is no basis to complain about these tariffs. "Baltijas ekspresis" initially complained also about the methodology for calculating these tariffs, but the court did not accept the complaint.

We are not aware of any other discussions or negotiations, because setting the tariffs for the carriage of cargoes is within the competency of the carrier itself.

Possible regulatory difficulties for setting different level tariffs for Rail Baltica

With respect to the possible tariffs for the use of the infrastructure of Rail Baltica the answer depends on the owner of it. If the owner of the infrastructure in Latvia will be "Latvijas Dzelzceļš", until an independent railway infrastructure operator will be established, the tariffs for the use of this infrastructure will have to be set by the Public Utilities Commission. At this point in time it is impossible to tell if the Public Utilities Commission will be ready to set different tariffs for different types of infrastructure. If, however, the owner of the infrastructure will be another entity, which is not connected to the carriers of passengers or cargoes, tariff will be set by that entity. In both scenarios the methodology for calculating tariffs for the use of public railway infrastructure, in force at the given time, will have to be complied with. This methodology is approved by the Public Utilities Commission.

As explained earlier, setting of tariffs for carrying of passengers and cargoes is within the competency of the carrier itself. The only exception, which we can see at this point in time, is related to providing the so called "services of public transportation", carrying of passengers by railway being one of them. In case carriers of passengers, operating through Rail Baltica, will receive the rights

to provide the mentioned services of public transportation (in Latvia) they will be constrained by the requirements of the procurer of the services and the methodology. This methodology is approved by the Government (the Cabinet of Ministers).

Additional difficulty may arise from the regulations of the Cabinet of Ministers No 854, dated 14 September 2010, which set the criteria for establishing that the main purpose of the service is carrying of passengers between different Member States of the European Union, as well as set criteria for recognising that such service distorts the economical balance of the concluded contracts for services of public transportation. In accordance with these regulations, if embarking and disembarking of passengers within the territory of Latvia distorts the economical balance of the concluded contracts for services of public transportation, the State Railway Administration may impose restrictions on embarking and disembarking of passengers within the territory of Latvia. In accordance with these regulations it is considered that there is a distortion of the economical balance if, firstly, the ticket price is cheaper than the price for equivalent ticket by the local carrier multiplied by 1,2, and/or secondly, if more than 1/3 of the passengers were carried within the territory of Latvia and the departing time of the train is within 10 minutes to 1 hour (depending on the number of local trains per day in the same route) from the departing time of the local train.

Tariffs and subsidies for other modes of transport

International air services (inter alia airport services) and commercial lines (e.g. international intercity express buses) are not subsidised. A concealed way of subsidising inter city bus and train routes within Latvia is the procurement of "services of public transportation".

As explained earlier, setting of tariffs for carrying passengers are within the competency of the carrier itself, except in the case of the so called "services of public transportation" the carrier is constrained by the requirements of the procurer of these services and by the methodology for calculating tariffs for these services, approved by the Cabinet of Ministers.

Since carrying of passengers between Riga and Tallinn currently would not be considered as "service of public transportation" for the purposes of regulating methodology for calculating tariffs, the carrier will be free to set tariffs by itself. On the other hand, carrying of passengers between Riga and Jelgava is falling under the "procured services of public transportation"; therefore setting of tariffs is and most probably will remain constrained by the requirements of the procurer of these services and by the methodology for calculating tariffs for these services, approved by the Cabinet of Ministers.

LITHUANIA

Infrastructure charge

An infrastructure charge is paid by the railway company (the carrier) to the operator of the railway infrastructure (which is the state owned company AB "Lietuvos geležinkeliai") for the use of the railway infrastructure and the services, provided by the operator.

The method of calculation for this charge is established by the Cabinet of Ministers of Lithuania, however the detailed figures (indices, coefficients etc) used in the calculation are set by the State Railway Inspection who operate under the Ministry of Transport. The methodology is mainly based on the actual costs and utilisation of the respective section of rail infrastructure under consideration.

Tariffs for carrying of freight

Tariffs for the carrying of freight are not regulated by governmental institutions. Carriage of freight and other services provided by the railway operator are charged in accordance with the charges set forth in the contract of carriage or contract for organisation of carriage. Carriage tariffs are fixed by the railway operator (AB „Lietuvos geležinkeliai“). The tariff book for import, export and local transportation of freight is publically available. The calculation of the tariff is mainly based on the distance, weight and type of carriage.

Setting of passenger tariffs

In Lithuania the maximum tariffs for carrying of passengers on local service routes are regulated by the State Price and Energy Control Commission (the Regulator).

It should be noted, that recently the Regulator proposed to the Government of Lithuania to discontinue the regulation of tariffs in the railway, water and long-distance road transport sectors. However, the Government decided to uphold the regulation of tariffs in monopolistic sectors. Thus, regulation of the maximum tariffs for the carrying of passengers on the railway remained unaltered, the regulation of water transport was slightly liberalised and the regulation of long-distance road transport was withdrawn.

The tariffs in the railway sector are determined on the basis of the Railways Transport Code of the Republic of Lithuania and the Methodology for Determining Maximum Tariffs for Carriage of Passengers on Local Service Routes.

According to the methodology the maximum tariffs are to be set by the Regulator for every operator individually. The calculation methodology is based on the costs incurred by the operator. The formula components, determining the maximum tariff are:

- Incomes for ensuring profitable activities (planned incomes plus indispensable expenditures);
- The average tariff for the carriage of passengers on local service routes (incomes for ensuring profitable activities divided by the traffic of passengers (turnover) and multiplied by 100);
- After evaluation of additional services for every type of carriages, passengers' comfort level, speed of the train - additional coefficients are determined;
- Planned kilometres of the passengers on local service routes in different carriages.

Charges for the carriage of passengers and luggage on international service routes are fixed by the operator in accordance with the procedure established by international treaties of the Republic of Lithuania concerning cross border railway service.

Private freight operator's possibilities to negotiate different tariffs

There is no specific regulation in Lithuania as regards to the possibility for the private freight operators to negotiate different tariffs. However, according to publicly available information big strategic companies (e.g. Orlen Lietuva), generating a substantial volume of freight enjoy more beneficial tariffs. We are not aware of other discussions or negotiations as setting of the tariffs for the carriage of freights is within the competence of the carrier itself.

Possible regulatory difficulties for setting different level tariffs for Rail Baltica

As the with other countries the difficulties will change depending upon who owns and who operates Rail Baltica. Assuming that Rail Baltica as a part of the public railway infrastructure and is owned by the state (operated by AB "Lietuvos geležinkeliai") the the regulations mentioned above apply.

It should be noted that in Lithuania the determination of the tariffs is based on actual costs and utilisation of the corresponding rail infrastructure. Accordingly, the investment necessary for the construction of Rail Baltica would influence the tariffs.

Tariffs and subsidies for other modes of transport

International air services and commercial lines (e.g. intercity express buses) are not subsidised.

The setting of passenger tariffs are the responsibility of the carrier, except in the case of the so called "services of public transportation", where the tariff is set by the municipality.

5.4 Technical Constraints

Rail Baltica will be constructed to the latest Technical Specifications for Interoperability (TSI). The primary scheme parameters have been developed based on a New Core TEN-T line operating as a mixed traffic line.

Key Parameters are:

- Line Category IV-M
- Structure Gauge GC
- Maximum axle Load 25 tonne
- Maximum line speed 240 km/h
- Maximum Train Length 750m

Since the success of Rail Baltica is founded on a mix of freight and passenger service on the line, fast conventional service is being proposed rather than very high speed rail service. In order to run at very high speeds, HSR trains need to be far more powerful than conventional trains. In order to maintain their top speeds, the lines that they travel on must be built with the fewest possible curves – and where curves are unavoidable, they must use larger turning circles to change direction. Braking distances must also be longer to allow the trains to slow down safely and rail construction tolerances are far more exact, all of which considerably increase construction and maintenance costs.

Table 43 – Design parameter comparison (conventional vs.HSR)

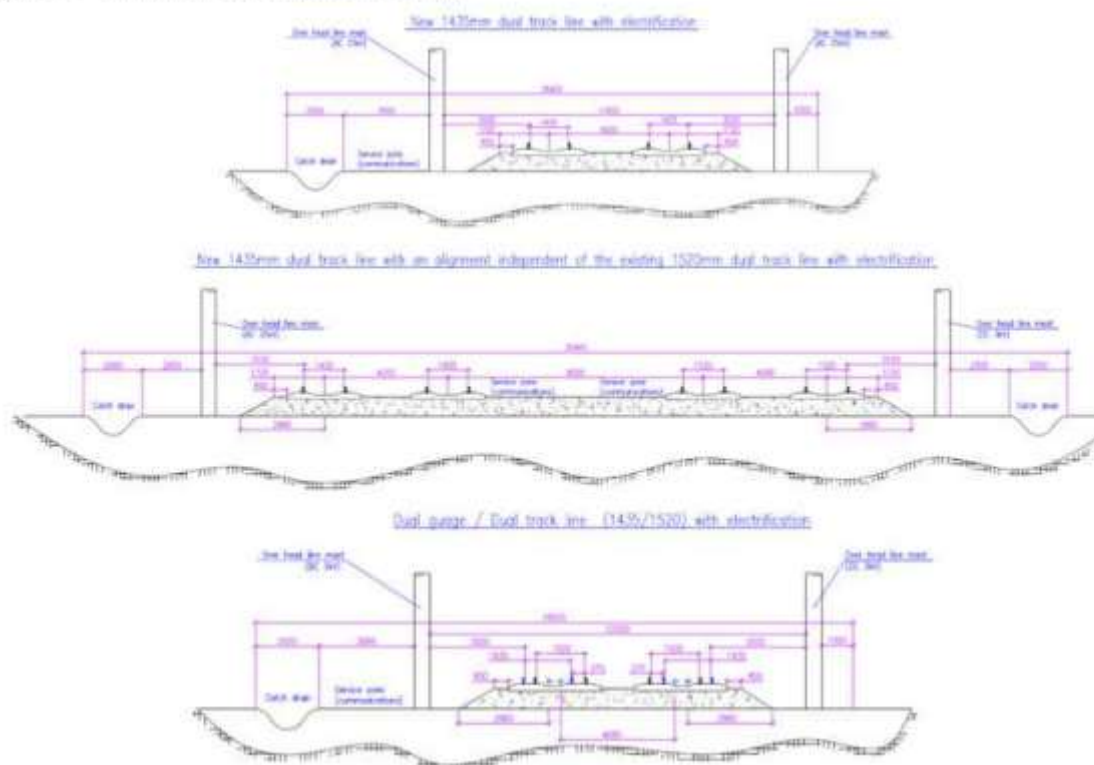
	Conventional Rail	HS Rail
Top speed (kph)	200	400
Installed power (MW)	4	20
Maximum gradient incline (%)	1	3
Minimum radius of curvature (m)	1800	7200
Average braking distance (m)	2000	5500

(Note: these figures are representational and are based on typical design parameters for comparison purposes only)

In addition, the train design and the stations serving them must also have different characteristics. High speed stations are more comparable to airport terminals than conventional train stations, which in the context of Rail Baltica is not required based on passenger densities anticipated as calculated and validated via journey time sensitivity analyses in the passenger demand models of this study

Three different infrastructure implementation scenarios were evaluated – independent 1435mm gauge line (new alignments), 1435mm Gauge Line adjacent to the existing 1520mm gauge line (existing alignments), and dual gauge 1435/1520mm line. Technical constraints were outlined for rail infrastructure, civil and structures, signalling and telecoms, electrification, maintainability and rolling stock. Each option under consideration includes various combinations of the infrastructure scenarios depicted below. The dual gauge scenario, due to the technical constraints inherent in the design of such layouts, is to be considered a worst-case scenario and is contemplated only in urban areas where other options are not viable.

Figure 18 – Infrastructure implementation scenarios



In the table below we have set out the various technical constraints which have been identified associated with the three primary options being considered.

Table 44 - Technical constraints

Constraint Description	Impacts of Constraint to Each Scenario		
	Independent 1435mm Gauge Line (new alignment)	1435mm Gauge Line (adjacent to the existing 1520mm Gauge line)	Dual gauge 1435mm/1520mm Line
Technical Constraints			
Infrastructure			
Track			
Rail	-	-	Gauge difference is too small to implement three rail application. Existing 1520mm rails will need relaying on new extended sleepers to enable fitment of 1435mm gauge.
Sleepers	-	-	See above
Ballast			
Broken stone ballast	-	Existing ballast must be renewed and extended.	Will probably be renewed to cater for the increased construction depth and extended sleepers needed for higher speed line.
Geometry / alignment			
Curve radius in plan	Speed may be restricted in urban areas due to land availability which will compromise journey times.	Differential speeds of existing and new route will result in incompatibility of curve radius and need for increased corridor width	Differential speeds of existing and new route will result in incompatibility of curve radius. Speed on new route will have to be reduced to match radii on existing route
Vertical curve radius	-	-	
Switches (Points)		Bespoke crossings (frogs) will be required to effect turnout of 1520mm route across 1435mm route at junctions (or vice versa) OR Grade separate routes at junctions	Switches on 1435mm line will need to be displaced geographically from switches for 1520mm. Switches will be low speed.
Civil & structures			
Platform clearances/stepping distance		Conflicting platform clearances and stepping distances. Need for independent platform faces	Conflicting platform clearances and stepping distances. Need for independent platform faces

		will increase corridor width requirements	will increase corridor width requirements and complexity of station approaches. The platform position within dual gauge sections would need to be positioned to reflect passenger usage. Where both gauges carry passenger traffic, specific arrangements would be required, such as separate platforms on opposite faces, or retractable steps on the vehicles.
<i>Underbridge loading</i>	New underbridges required for river/water crossings	Additional underbridge spans are likely to be required to cross rivers, rail corridors, etc.	Additional underbridge spans are likely to be required to cross rivers, rail corridors, etc.
<i>Overbridges</i>	New overbridges required to remove at grade road crossings OR Road diversions required to alternative routes	New overbridges required to remove at grade road crossings OR Road diversions required to alternative routes	New overbridges required to remove at grade road crossings OR Road diversions required to alternative routes
<i>Earthworks</i>	Fills, cavities, soil change on weak bases	Likely to require additional earthworks and benching in which will have impact on existing earthworks	Fills, cavities, soil change on weak bases
<i>Clearance/land availability for line and support structures</i>	Need 100% purchase of land. May be constrained where route enters built up/urban areas due to land availability	Need significant additional land but not as much as for a new route. May be constrained where route enters built up/urban areas due to land availability	Little additional land required. Only potential requirements at stations
<i>Signalling & Telecoms</i>			
<i>Control</i>	New control required	Single control point for both gauge routes (new 250kmph), (extst. 120kmph) required in common geographic sections	Single control point for both gauge routes (new 250kmph), (extst. 120kmph) required in common geographic sections
<i>Interlocking</i>		Interlocking common to both gauge routes at junctions OR Grade separate junctions	Safe interlocking of conflicting elements of both gauge routes required. Interlocking common to both gauge routes required.

<i>Train detection</i>	-	Common train detection system required at junctions that is common to both gauges. OR Grade separate junctions	Complexity of bonding, particularly at junctions. Consider axle counters
<i>Signal sighting</i>	-	-	Sub-optimal position of signals for sighting on one of the gauge routes. Consider in-cab signalling as overlay for 1435mm gauge.
<i>Train protection</i>	-	Balise or inductor based	Balise or inductor based
<i>Point machine/drive mechanism</i>	-	-	Complexity of drive and detection arrangements. Consider in-bearer point machines.
<i>Line side cable route</i>	-	Consideration needs to be given to maintenance access for equipment sited between gauge routes	Consideration needs to be given to maintenance access for equipment sited between gauge routes
<i>Line side equipment cases</i>	-	-	-
<i>Level crossings</i>	-	Will need removing in line with policy not to have at grade crossings on 1435mm line. Road diversion or bridge required	Will need removing in line with policy not to have at grade crossings on 1435mm line. Road diversion or bridge required
<i>Electrification</i>	Will need new power supply system and connections	Conflicting power supply systems/ rolling stock where existing electrification exists	Conflicting power supply systems/ rolling stock where existing electrification exists. Dual voltage rolling stock required
<i>Power supply and system voltage</i>		Will need reconstruction of existing power supply system	Will need reconstruction of existing power supply system
<i>Return traction</i>	-	-	
<i>Catenary and contact wire</i>	-	Neutral sections may be required at junctions which are already electrified with different AC voltage	Stagger of contact wire will need to be restricted to ensure its suitability for trains on both gauges

<i>Earthing and bonding</i>		Additional measures required where DC electrification exists along or adjacent to the route	Additional measures required where DC electrification exists along or adjacent to the route
<i>EMC</i>	Will trigger need for immunisation on other lines (direct connection or where route crosses another line)	Will trigger need for immunisation on other lines (direct connection or where route crosses another line)	Will trigger need for immunisation on other lines (direct connection or where route crosses another line)
<i>Clearance/land for support structures</i>	May be constrained where route enters built up/urban areas due to land availability	May be constrained where route enters built up/urban areas due to land availability	May be constrained where route enters built up/urban areas due to land availability
<i>Maintainability</i>			
<i>Plant and equipment</i>	1435mm track plant will be required	1435mm track plant will be required	Specialist plant will be required
<i>Maintenance procedures</i>		Access and possession planning will need to consider adjacency of railways	
<i>Rolling stock</i>			
<i>Up to 200 km/h</i>	New stock required	New stock required	New stock required
<i>Over 200 km/h</i>	New stock required	New stock required	New stock required
<i>Signaling</i>	Stock will need to be compatible with trackside infrastructure	Stock will need to be compatible with trackside infrastructure	Stock will need to be compatible with trackside infrastructure
<i>Train protection</i>			
<i>Gauge transfer</i>	Only at dedicated locations unless automatic wheel change employed	Only at dedicated locations unless automatic wheel change employed	Not required

From the above table it can be seen that the most significant technical constraints are associated with the dual 1435/1520 track option. For that reason it is envisaged that this solution will only be used on sections where other constraints make the introduction of a separate 1435 gauge line impossible. The ways in which the signalling and OHL issues can be mitigated in the dual gauge sections are explained in more detail below.

OHL Issues

The proposed Rail Baltica would utilise a 25kV AC OLE traction supply. The existing electrified sections of track use a 3kV DC system. Obviously it is not possible to run both systems simultaneously and so the new Rail Baltica rolling stock would have to be able to operate on dual voltage.

Dual voltage trains are commonly used on other European networks;

French TGV trains operate between 25kV ac , 1.5kV dc and 3kV dc

Belgian TGV trains operate between 25kV ac and 3kV dc

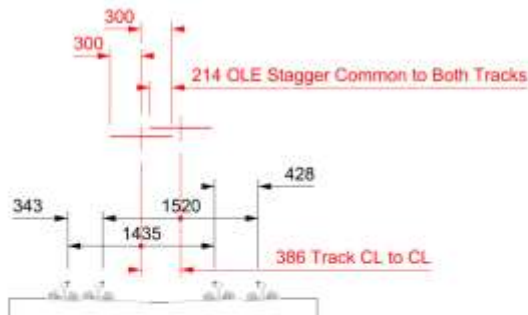
German ICE trains operate between 25kV ac and 3kV dc

Channel tunnel Eurostar (TGV) operate between 25kV ac OLE and 750v dc third rail

A typical arrangement for a 1435 / 1520mm dual gauge is shown in the attached below, and could involve a minimum centreline offset between adjacent rails of 343mm, providing a minimum dimension between fixings (cast-in housing on concrete sleepers). This would result in an associated track/ gauge centreline offset of 386mm.

For overhead line electrified railway, this track centreline offset could be accommodated within the OLE catenary stagger (typically 300 – 380mm), which would allow vehicles using either gauge track to use a common OLE catenary wire. The typical catenary stagger would be 214mm, which would require restrictions in the installation and maintenance tolerances of these sections of OLE to account for the restricted staggers.

Figure 19 - Typical Dual Gauge Layout



Variation in stagger is normally preferred to ensure an even wear profile across the vehicle pantograph. With the restricted stagger pantograph wear might be an issue in the long term.

The use of a base-plated track fixing system may allow the track gauge spacing to be reduced slightly, though this and the typical dimensions quoted above would need to be confirmed during subsequent scheme development.

Signalling Issues

Signalling Dual Gauge Lines

Main line railways ensure the safe passage of trains on a system of fixed blocks that underpin the signalling system. The signalling system ensures that only one train may occupy a block section at any one time.

On a dual gauge railway, the 1435mm gauge line and the 1520mm gauge line will run in the same block section. The passage of a train on the one gauge will effectively occupy the same block section in the 1520mm gauge line and vice versa. Consequently the control of any given section of dual gauge route must have a single system responsible for safety integrity on both gauges to ensure that a train is routed safely and protected whilst using the route both from other trains on the same gauge and trains using the alternate gauge. Movement authority must be given reliably to trains using each gauge. Speed supervision and train protection must be provided for trains using each gauge.

The existing signalling systems on the route will vary but will generally comprise of the following key elements:

Control centre equipment

- Control panel
- Interlocking

Track side equipment

- Train detection system
- Point operating mechanism,
- Line side Signals

The primary function of the interlocking is to provide safety integrity in the system preventing the setting of unsafe situations and conflicting train movements. On a dual gauge railway, a single interlocking must detect the state of the railway and control routes on both gauges. On the Rail Baltica route where conversion of the existing 1520mm route is desirable to overcome restricted corridors, reconfiguration of the existing signalling systems will be required.

ERTMS

The Trans European Network Route will need to be compliant with European Standards for Inter-operability. These standards mandate European Train Management System (ERTMS) as a solution.

ERTMS consists of two elements; the European Train Control System (ETCS) and Global System Mobile – Railways (GSM-R). The ETCS provides common automatic train protection functionality together with in-cab signalling of movement authority and speed information for the driver. The GSM-R provides a common radio system for trains operating across European borders.

Three levels of ERTMS are envisaged but only Levels 1 and 2 are in commercial use:

Level 1 – An overlay to line side signalling systems that provides enhanced safety through the provision of automatic train protection system that supervises the train speed against the speed profile calculated by the on-board system in relation to the limit of movement authority received. It utilises the existing train detection and interlocking but provides in cab signalling of movement authority by taking aspect information from the line side signal circuits and communicates this into the cab via Local Electronic Units (LEU) and track mounted balise.

Level 2 – Provides additional functionality and flexibility by removing the need for line side signals. Train position is detected by the track side train detection system via the interlocking. Track mounted balise provide odometry referencing for the on board system. Movement authority is communicated to the train from a Radio Block Centre via the GSM-R radio system based upon safety integrity information from the interlocking. The interlocking must be capable of two way communication with the RBC. This generally requires the renewal of the interlocking. This level of ERTMS enables more flexible use of the underlying block system and can enhance capacity of the network.

Level 3 – Provides moving block functionality. It removes the need for track based train detection and line side infrastructure other than passive balise mounted in the track; and the GSM-R radio system. Level 3 systems are still being developed and are not in commercial use in main line railways. The level 3 system is not constrained by fixed blocks and can have high levels of capacity and operational flexibility as a consequence.

Signalling Dual Gauge Lines on Rail Baltica

The use of ERTMS on the Rail Baltica route is specified by the Technical Specifications for Interoperability. Where a dual gauge route is desirable in an area of restricted corridor, the overlay of ERTMS level 1 would provide a solution that:

1. enables the continuation of ERTMS signalling control for trains running on the 1435mm route;
2. provides a common European train protection interface between infrastructure and train; and
3. minimises alterations to the existing signalling systems or rolling stock that use the 1520mm gauge line.

The existing system would need to be altered as follows:

1. The track based train detection would need to be reconfigured to incorporate rails in both gauges as one circuit.
2. Local Electronic Units would need to be provided to derive information from the signal aspect circuits that feed the line side signals.
3. Track balise would need to be provided to communicate signal aspect information into the on-board ERTMS equipment from the LEU and communicate the static profile of the route ahead.
4. Interlocking logic alterations would need to be undertaken where points in different gauges are introduced into the layout.
5. Alterations to the control panel would need to be undertaken to reflect revised track layouts where additional points are provided for 1435mm gauge line.

In these dual gauge areas Rail Baltica would be constrained as the ERTMS system would be constrained by the underlying block system of the fixed block system. Specifically

1. Line speed would be constrained to the design speed of the underlying fixed block system
2. Capacity would be constrained by the design capacity of the underlying fixed block system

5.5 Social and Political Constraints

5.5.1 Social

5.5.2 Language

With Estonia, Latvia and Lithuania all having their own individual languages there is the possibility that language barriers will create issues in the development and internal management of the Rail Baltica project. On top of the individual language of the three countries there is also the further issue of the Russian language being widely used throughout the existing railway network.

5.5.2.1 Severance

With the potential line speed dictating an absence of at grade crossings then whichever option is chosen a number of smaller roads will have to be 'stopped up' or diverted leading to potential severance within some of the communities. This in turn will potentially lead to greater objections coming from the municipalities during the planning process and increase the risk of delays to the project implementation.

5.5.2.2 Population

As discussed in section 4 of this report the population in the Baltic Region is generally declining. This will have a two fold effect on the project. Firstly there is obviously a limit on those people that will be using the service but more importantly there is potentially a shortage of skilled labour available to both construct and operate the service.

5.5.3 Political

National Parliament and municipal elections in each of the Baltic States take place in different years and cycles (see the table below). This implies that changes in political authority increases the possibility of alteration in political agendas and priorities in each of the countries on national and local authority level.

Table 45 - Municipal Elections

National Parliament elections in each of the Baltic States every 4 years	Latvia: 2010 Lithuania: 14.10.2012 Estonia: 06.03.2011
Regular municipal elections in each of the Baltic States	Latvia: Lithuania: 20.02.2011 Estonia: 20.10.2013
European Parliament elections in each of the Baltic States every 5 years	Latvia: 06.2014 Lithuania: 06.2014 Estonia: 06.2014
Presidential elections in Lithuania every 4 years	Latvia: 07.2011 Lithuania: 05.2014 Estonia: 08.2011

Furthermore, non-symmetrical bureaucracy in the governments of the Baltic States complicates collective decision making. This may alter changes in the confirmation and implementation process.

Finally, each Baltic country separately lobbies its airports, harbours, as well as road and railway industries. The Rail Baltica development will have future impact on the road and air transport industries, which may increase the tendency of political parties

to favour their supporting industries and companies. This may again trigger extra disagreements between the involved parties during the consensus building process of the project.

In order to implement this project, joint management institutions, including regulatory bodies, should be considered. Nevertheless, this can be a complicated.

Bear in mind that there are several Free Economic Zones in the Baltic States: Klaipėda Free Economic Zone in Lithuania, and Rēzekne, Liepāja, Rīga Free Port economic zones in Latvia.

Rail Baltica would be beneficial for civil emergency planning of NATO. Civil Emergency Planning is first and foremost a national responsibility and civil assets remain under national control at all times. However, the magnitude and duration of a disaster situation may extend beyond the capacity of the affected country and its repercussions may reach far beyond national borders. NATO plays its part by serving as a forum for comparing and analyzing national programmes to ensure that plans and procedures are operational and that the necessary assets are available for addressing emergency situations jointly if need be. This would imply there is a necessity to align the project with the suggestions of civil emergency planning, as well as multinational integrated logistics support of NATO.

6 Option Identification

6.1 Option Identification Methodology

The first stage in the identification of potential routes for Rail Baltica was to plot on to background mapping the potential constraints, such as the Natura 2000 sites, that have to be avoided wherever possible, and the potential demand drivers, such as the major centres of population and development identified in the macro-economic data. As a result of this exercise it was decided that the geography between the key destinations discussed in the terms of reference should be broken down into segments. Four segments were identified: 1) Tallinn to Parnu/Tartu, 2) Parnu/Tartu to Riga, 3) Riga to Radviliskis/Panevezys and 4) Radviliskis/Panevezys to the Lithuanian border via Kaunas. When looking at new alignments care was taken to miss settlement areas wherever possible to minimise the environmental impact.

Segment 1 – Tallinn to Parnu/Tartu

Within this segment two primary options exist which are to travel either through Parnu or Tartu. This can be done either by utilizing the existing/parallel rail alignments or proposing new/independent rail alignments. The new alignments were chosen in an effort to minimise journey times. The existing/parallel alignments can also result in either adjacent segregated dual track configurations and/or dual gauge dual track configurations. The new/independent alignments will result in new dual track independent 1435mm infrastructure. A third option was considered via Vija but as this route would be longer than the route via Parnu and would not pass through as many major population centres as the route via Tartu it was dismissed at an early stage.

Segment 2 - Parnu/Tartu to Riga

In segment 2 from the Parnu/Tartu line to Riga a greater number of options were initially identified depending upon the start location. From Parnu three primary options were identified - direct new alignment to Riga, existing/parallel alignment to Riga and a hybrid new/existing alignment through Valmiera to Riga. The aim of this last alignment being to increase potential passenger numbers on this route. From Tartu two options were identified - existing/parallel alignment through Valga, Valmiera and Cesis to Riga or existing/new alignment through Valga, Valmiera, bypass Cesis to Riga. The different track configurations would be as for segment 1.

Segment 3 – Riga to Radviliskis/Panevezys

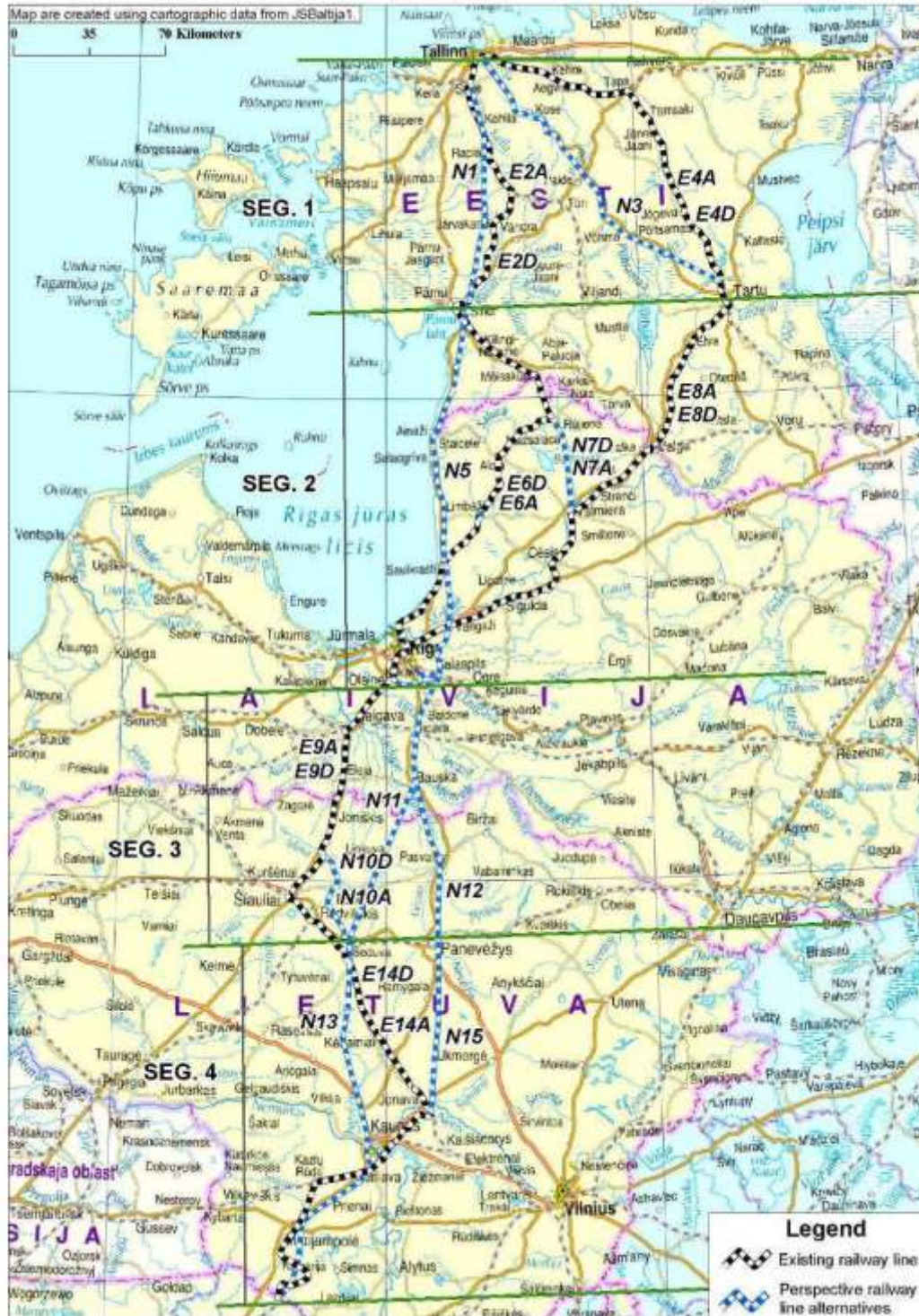
From Riga three primary options were identified - existing/parallel alignment to Radviliskis via Jelgava, a hybrid new/existing alignment through Jelgava to Radviliskis, and a direct new alignment to Panevezys. Track configurations as above.

Segment 4 - Radviliskis/Panevezys to the Lithuanian border via Kaunas

From Radviliskis two primary options were identified - existing/parallel alignment to Lithuanian Border via Kaunas or a hybrid new/existing alignment through Kaunas to Lithuanian Border. From Panevezys a direct new alignment to the Lithuanian Border was considered. Track configurations as above.

The various options are shown on the figure below:

Figure 20 - Initial Option Variations



The above process resulted in over 20 variations which following further investigation have been narrowed down to 4 key options. In the refinement process options were rejected which failed to fulfill certain key criteria for example N13 that passed to the west of Kaunas and was therefore not able to serve the proposed new intermodal facility planned near the airport. Others like N10 were rejected as they added distance but without the benefits of passing through a major population centre. Some of the variations remain which will be tested as part of the overall option analyses.

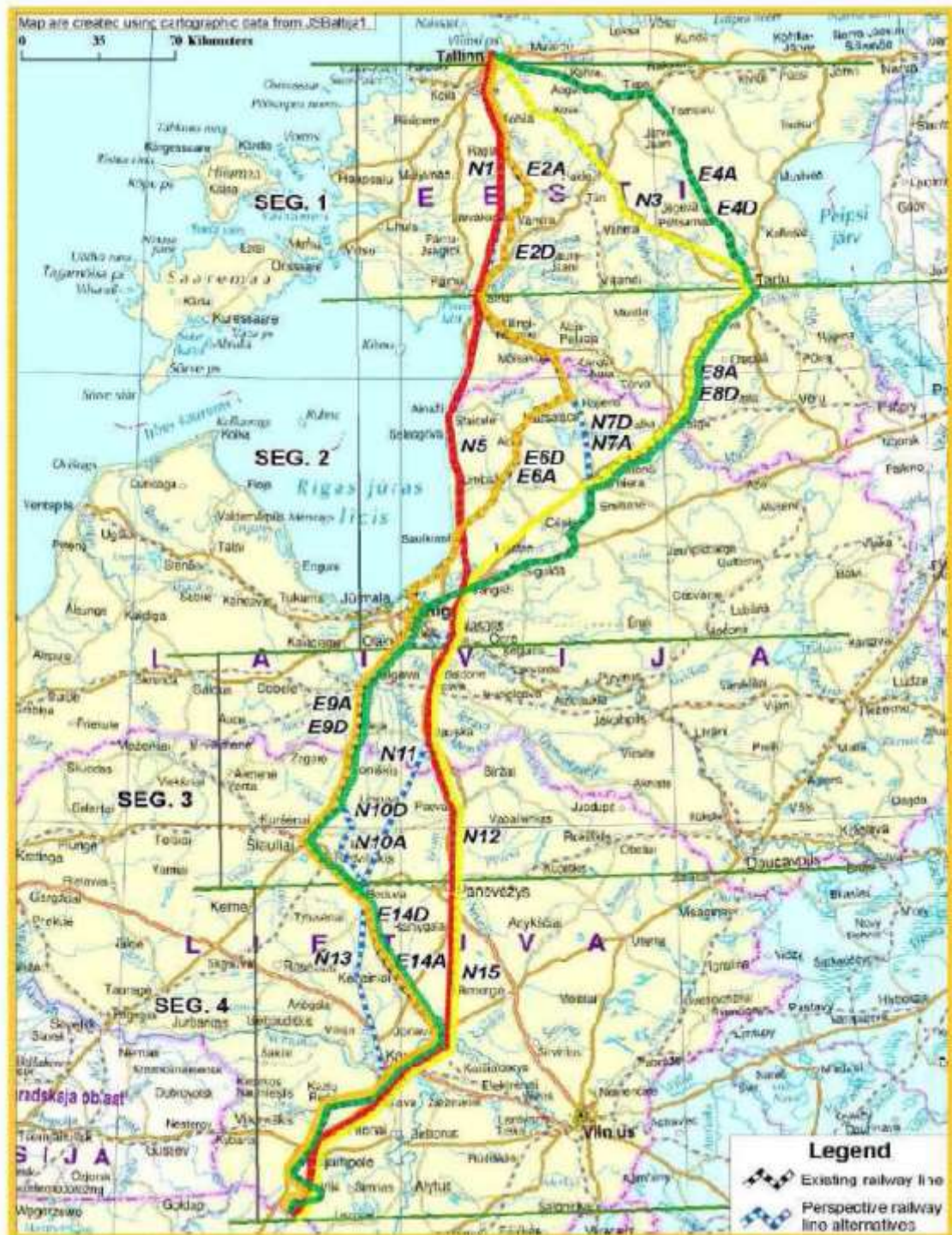
The key options are shown in the figure below together with a table of distances and estimates of journey time. In assessing the journey times and average speeds, particularly for routes adjacent to the existing routes, consideration was given to the various constraints governing the existing alignment speed and where it was felt that these could not be easily negated a similar speed was used for the new route. Due consideration was also given to station dwell time, acceleration and deceleration.

Table 46 - Distances and Journey Times

		PASSENGER / FREIGHT		
		Distance (km)	Journey Time (hrs) (hours_minutes)	Ave. Speed (kph)
Option 1	New Alignment			
	LT Border – Kaunas – Panevežys – Riga – Parnu – Tallinn	701/708	4.13/10.38 (4h8m/10hr23m)	170/68
Option 2	Existing Alignment			
	LT Border – Kaunas – Jelgava – Riga – Parnu – Tallinn	788/804	6.14/11.56 (6h8m/11h34m)	128/70
Option 3	New Alignment			
	LT Border – Kaunas – Panevežys – Riga – Valmiera – Tartu – Tallinn	791/792	4.81/11.17 (4h49m/11h10m)	165/71
Option 4	Existing Alignment			
	LT Border – Kaunas – Jelgava – Riga – Valmiera – Tartu – Tallinn	858/859	6.74/11.88 (6h44m/11h53m)	127/72

(Note: Distances differ between passenger and freight routes due to differing locations of passenger stations and freight ports/facilities)

Figure 21 - Route Options



6.2 Key Option Description

An outline of each of the 4 key options is given below. Details of the specific issues related with each option can be found in Appendix D. One issue common to all routes is the connection to Riga airport. The location of Riga airport is such that its connection to any north south route is very complicated and to offer a good connection to any airport a service frequency is required, probably in the order of one train every 15 – 20 minutes, which is much greater than that provided by the potential Rail Baltica service which would be hourly at best. As a result of this we have assumed that all routes will serve Riga Central Station only. Connection to the airport will be by other public transport providers.

Option 1 – Red Route

This alignment has been selected and designed to be the most direct and shortest route from the southern most point to the northern most point of the corridor. The new 1435mm gauge line starts at the LT border and proceeds into Kaunas on a new alignment to minimize curves and speed restrictions. At Kaunas the route will not serve the Central Station directly but will use Palemonas station as the transfer connection to the existing 1520mm gauge line to link to the Central Station and a transfer location for shuttle service to the airport via bus or rail. The new proposed intermodal facility is also in this area and can also be easily served by this route. The line progresses northbound through the west-side of Panevezys, where a stop for passengers and freight is planned, and continues north into Latvia. In Latvia the alignment proceeds adjacent to Iecava and then crosses the Daugava River to the east of Riga, at Salaspils at which point an east-west intermodal transfer station is contemplated. Riga City is served by utilizing the old "Ergli" alignment through to the Central Station. Trains from Central Station use the same route to arrive back at the main north south section. From this connection point the line proceeds northbound following parallel to the Via Baltica roadway alignment to Parnu, another intermediate stop and subsequently to Tallinn Central Station stopping first at Tallinn Airport. In the vicinity of Tallinn spurs are provided from the main line to serve both Muuga Port and the proposed location of the proposed fixed crossing to Helsinki.

Option 2 – Orange Route

This alignment has been selected as the most direct existing rail route from the southern most point to the northern most point of the corridor. The new 1435mm gauge line starts at the LT border and proceeds into Kaunas on the existing alignment to minimize right of way acquisition costs and additional infrastructure costs. The line progresses northbound along the existing corridor through Jonava, Kedainiai, Radviliskis, Sauliai, Joniskis and continues north into Latvia. In this stretch of the railway multiple interface and intermodal connections are possible with the existing 1520mm east-west alignments. In Latvia, the alignment proceeds into Jelgava, where a stop for passengers is provided and an east-west intermodal transfer station is contemplated. The route then continues along the existing alignment and crosses the Daugava River in the center of Riga over the existing railway bridge and connects to Riga Central Station. From Riga Central Station the line proceeds northbound following the existing railway alignment to Parnu via Limbazi. It is proposed to provide a passenger stop at Parnu. From Parnu the route continues on to Tallinn Central Station. Muuga port, the proposed location of the Helsinki fixed link and Tallinn airport would all be served by a new line continuing on from the Central Station. A bypass will be provided so that freight traffic does not have to enter the Central Station.

Option 3 – Yellow Route

This alignment has been selected to try and maximise potential passenger demand by passing through the majority of the major population centres. The new 1435mm gauge line starts at the LT border and proceeds into Kaunas on a new alignment to minimize curves and speed restrictions. As with option 1 Palemonas is used as the passenger stop rather than Kaunas Central Station. The line progresses northbound through the west-side of Panevezys, where a passenger and freight stop is also provided, and continues north into Latvia. In Latvia the alignment proceeds adjacent to Iecava and then crosses the Daugava River, to the east of Riga, at Salaspils at which point an east-west intermodal transfer station is contemplated. Connect to Riga is as per option 1. From the connection point at Riga the line proceeds northbound following parallel to the existing Valmiera/Valka line but gets diverted at Vangazi to follow the Valmeira highway to avoid impacting the extensive Natura 2000 site between Sigulda and Valmiera. The alignment passes through Valmiera, where a passenger stop is anticipated and proceeds along the existing railway corridor through Valka/Valga to Tartu. A station reconstruction is anticipated at Tartu. The railway proceeds northwest on a new alignment to Tallinn stopping first at Tallinn Airport and then Tallinn Central Station. Muuga port and the proposed Helsinki fixed link are served as in option 1.

Option 4 – Green Route

This alignment has been selected to utilize ALL existing routes from the southern most point to the northern most point of the corridor. The new 1435mm gauge line starts at the LT border and proceeds parallel to the existing alignment into Kaunas

(possibly utilizing the already proposed designs and newly installed dual gauge rail track). The line progresses northbound along the existing corridor through Jonava, Kedainiai, Radviliskis, Sauliai, Joniskis and continues north into Latvia. In this stretch of the railway multiple interface and intermodal connections are possible with the existing 1520mm east-west alignments. In Latvia, the alignment proceeds into Jelgava, where a passenger stop and an east-west intermodal transfer station are contemplated. The route then continues along the existing alignment and crosses the Daugava River in the center of Riga over the existing railway bridge and connects to Riga Central Station. From Central Station the line proceeds northbound following parallel to the existing Valmiera/Valka line through Sigulda, Cesis and Valmiera. The alignment passes through Valmiera, where a passenger stop is assumed and the proceeds along the existing railway corridor through Valka/Vaiga to Tartu. A station reconstruction is anticipated at Tartu. The railway proceeds along the existing rail alignment through Tapa and northwest to Tallinn stopping first at Tallinn Airport and then Tallinn Central Station. The line is also proposed to have northbound connections to Muuga Port and the proposed Helsinki fixed link.

Figure 22 – Distance/passenger journey time comparison with the Business As Usual case scenario and the Existing Service



7 Technical Analysis Packages

7.1 Do Minimum Option

The business as usual case defines the reference scenario against which the various options will be appraised. The Do Minimum includes the following elements, including those defined in the study Terms of Reference:

- 1520mm gauge line between Marijampole and Tallinn upgraded to minimum 120kph line speed wherever physically possible.
- Estonia
 - Tartu – Valga rail line upgrade
 - Tallinn – Tartu – Voru road enhancements
- Latvia
 - Riga – Krustpils second rail track
 - Riga Ring road Daugava Crossing
 - Kekava Bypass
 - Development of Riga International Airport hub including its envisaged rail connection
- Lithuania
 - 1435mm gauge track installed between PL/LT border and Kaunas
 - Vilnius - Kaunas Rail modernisation (160kph)
 - Kaunas intermodal terminal
 - Improvements to E77 (Riga-Siauliai-Taurage-Kalliningrad)

7.2 Demand on the Alternative Routes

This section of the report summarises the current Rail Baltica forecasts for both passenger and freight for the 4 scenarios covered by the interim report.

7.2.1 Passenger Forecasts

7.2.1.1 Core Assumptions

Outlined below are the core assumptions currently adopted in relation to journey times, service frequency and fares for the Rail Baltica service.

Passenger Journey Times

The four route options identified in section 6 have been assessed in the transport model. The key characteristics of each option in relation to passenger services are summarised below.

Table 47 – Passenger journey times

Description	Alignment	TOTAL	PASSENGER		
		km	km	hrs	Av. kph
Option 1					
LT BORDER - TALLINN via KAUNAS/PANEVEZYS/RIGA/PARNU	New	728	701	4.13	170
Option 2					
LT BORDER - TALLINN via KAUNAS/JELGAVA/RIGA/PARNU	Existing	815	788	6.14	128
Option 3					
LT BORDER - TALLINN via KAUNAS/PANEVEZYS/RIGA/VALMIERA/ TARTU	New/Existing	818	791	4.81	165
Option 4					
LT BORDER - RIGA via JELGAVA	Existing	885	858	6.74	127

Service Frequency

The initial assumption adopted is that there will be a service every 2 hours along the route of Rail Baltica. This assumption has been adopted based on our initial review of overall corridor demand and a level of service which will be attractive to passengers.

We have subsequently undertaken an additional sensitivity test assuming a more frequent service to assess the impact of service frequency on patronage. This analysis is discussed in section 7.2.1.5.

Fare Rates

The initial assumption adopted is that the Rail Baltic Passenger fare will be €0.05 per km. This is in line with current rail fare rates and provides a starting point for the analysis. A revenue optimisation exercise has then been undertaken to determine the fare rates that generate the maximum revenue for each route option. These 'revenue maximising' fare rates have been adopted in the central case.

7.2.1.2 Base Case Passenger Forecast (Fares in line with existing rail fares)

As a starting point for the analysis and appraisal of passenger demand a base case has been specified. This case adopts all the assumptions discussed above, but with a fare rate of €0.05 per km. This fare rate is in line with current rail fare rates in the region and provides an indication of the levels of Rail Baltica patronage that could be generated if a similar fare structure to the existing rail service was adopted.

Table below shows the annual average daily 2-way flow for each section of the four Rail Baltica route options in 2020, 2030 and 2040 and with a fare rate of €0.05 per km.

Table 48 - 2-way average daily passenger volumes (Fare rate of €0.05 per km)

Flow (2-way Daily)	Red			Orange			Yellow			Green		
	2020	2030	2040	2020	2030	2040	2020	2030	2040	2020	2030	2040
Tallinn to Parnu	4,029	4,734	5,545	2,834	3,339	3,923	-	-	-	-	-	-
Parnu to Riga	3,004	3,566	4,204	1,964	2,343	2,775	-	-	-	-	-	-
Tallinn to Tartu	-	-	-	-	-	-	4,261	5,017	5,916	2,677	3,191	3,808
Tartu to Valmiera	-	-	-	-	-	-	2,564	3,113	3,644	1,397	1,695	2,008
Valmiera to Riga	-	-	-	-	-	-	3,730	4,417	5,109	2,306	2,706	3,136
Riga to Jelgava	-	-	-	3,963	4,581	5,200	-	-	-	4,307	4,965	5,600
Jelgava to Kaunas	-	-	-	2,724	3,188	3,624	-	-	-	2,902	3,402	3,855
Riga to Panevezys	3,572	4,172	4,736	-	-	-	3,578	4,180	4,733	-	-	-
Panevezys to Kaunas	6,523	7,428	8,336	-	-	-	6,529	7,435	8,331	-	-	-
Kaunas to Poland	2,272	2,486	2,654	1,730	1,889	2,004	2,267	2,483	2,653	1,727	1,887	2,002

7.2.1.3 Fare Optimisation

Model scenarios have been run with varying Rail Baltica fare rates. Model runs for the following fare rates have been undertaken:

- €0.05 per km
- €0.06 per km
- €0.07 per km
- €0.08 per km
- €0.09 per km
- €0.10 per km
- €0.11 per km
- €0.12 per km
- €0.13 per km
- €0.14 per km
- €0.15 per km
- €0.175 per km
- €0.20 per km

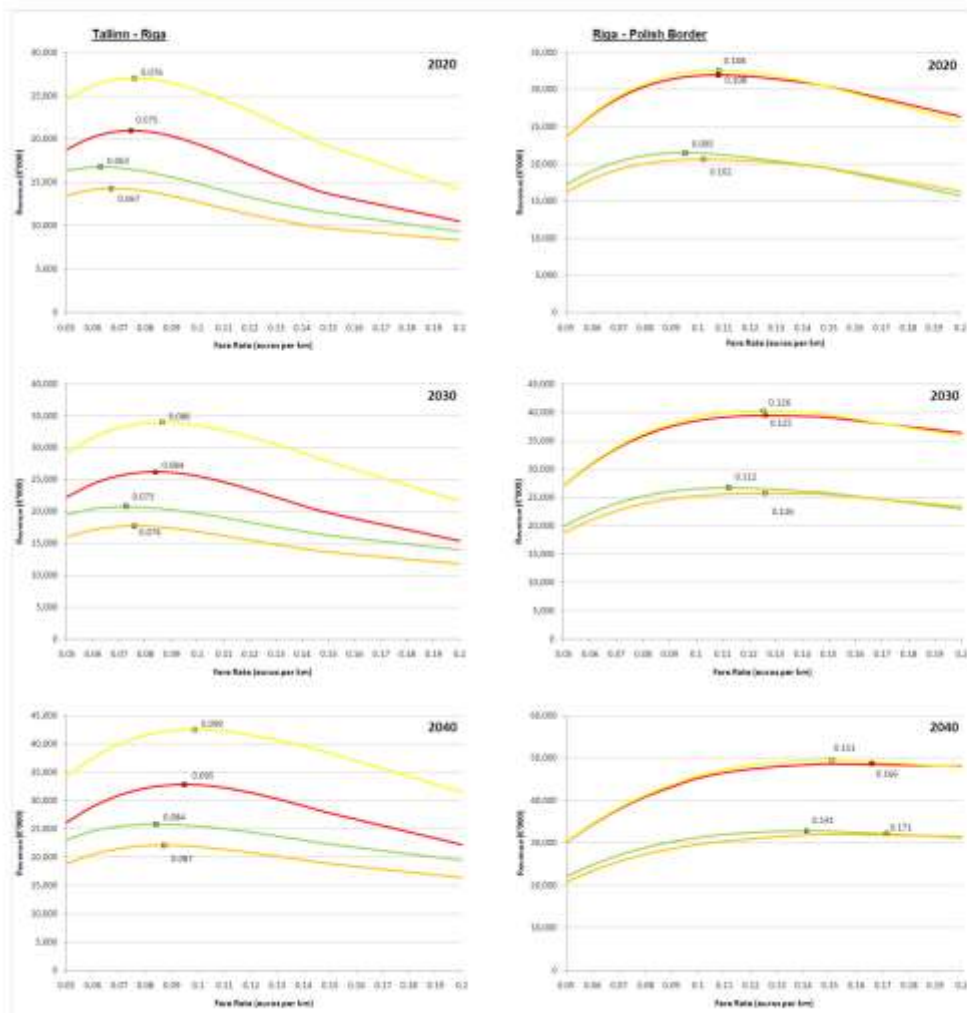
For each fare rate scenario the passenger demand has been extracted and the resulting Rail Baltica revenue calculated. The routes have been separated into two sections (Tallinn to Riga and Riga to Polish border) for the revenue calculation to allow varying optimal fares to be considered.

As fare rates increase passenger demand falls. At low fare rates generally demand falls by less than the fare has risen meaning there will be an increase in revenue as a result of the fare rise. However, a point will be reached where further increases in fare result in a reduction in demand greater than the fare increase. When this happens the revenue starts to fall. This feature of

demand/cost relationship means that for each route there is a fare rate that gives the maximum revenue which will be different for different routes depending upon the route characteristics.

The model results have been used to construct revenue curves for each of the route options. These are shown below in Figure 23. Also shown is the fare rate for each route at which the revenue is maximised.

Figure 23 – Revenue Maximising Curves



It is clear from Figure 23 that it is possible to generate significantly more revenue at fare rates higher than €0.05 per km for all route options. Generally it is also shown that the revenue maximising fare rate is higher for the faster route options (Red route, Option 1 and Yellow route Option 3) than for the slower routes (Orange route, Option 2 and Green route Option 4). As expected the optimum fare rates also increase in the future due to growth in the value of time.

The revenue maximising fare rates have been considered when defining the central case fare rates to be adopted. For the Tallinn – Riga section of the routes the revenue maximising fare rates calculated above have been adopted. For the Riga – Polish border section of the routes, options share identical routes the average of the revenue maximising fare rates have been adopted. This is to ensure consistency and comparability between routes.

Table below summarises the fare rates adopted for the central case for the four route options.

Table 49 - Central Case Fare Rates (€/km)

		2020	2030	2040
Red	Tallinn - Riga	€0.075	€0.084	€0.095
	Riga-Poland	€0.108	€0.126	€0.158
Orange	Tallinn - Riga	€0.067	€0.076	€0.087
	Riga-Poland	€0.099	€0.119	€0.141
Yellow	Tallinn - Riga	€0.076	€0.086	€0.099
	Riga-Poland	€0.108	€0.126	€0.158
Green	Tallinn - Riga	€0.063	€0.073	€0.084
	Riga-Poland	€0.099	€0.119	€0.141

Table below shows the sectional fares in 2020 that result from the fare rates shown above

Table 50 - Single Fare (1-way) 2020

	Red	Orange	Yellow	Green	Existing Bus Service	Existing Rail Service
Tallinn to Parnu	€10.4	€9.8	-	-	€7.7	€5.4
Parnu to Riga	€15.4	€15.1	-	-	-	-
Tallinn to Tartu	-	-	€12.2	€11.7	€9.6	€6.7
Tartu to Valmiera	-	-	€10.7	€8.9	-	-
Valmiera to Riga	-	-	€9.0	€8.4	€4.2	€4.0
Tallinn to Riga	€25.7	€25.0	€32.0	€29.0	€15.5	-
Riga to Jelgava	-	€3.3	-	€3.3	€2.1	€1.9
Jelgava to Kaunas	-	€23.4	-	€23.4	-	-
Riga to Panevezys	€18.7	-	€18.7	-	-	-
Panevezys to Kaunas	€9.5	-	€9.5	-	-	-
Riga to Kaunas	€28.2	€26.6	€28.2	€26.6	€24.2	-
Kaunas to Polish Border	€10.6	€12.3	€10.6	€12.3	-	-
Tallinn to Polish Border	€64.5	€63.9	€70.7	€68.0	-	-

7.2.1.4 Central Case Passenger Forecast (Revenue maximising fares)

The central case has adopted the key assumptions described in section 7.2.1.3 and the revenue maximising fares derived above. The following tables outline in detail, the passenger demand and revenue generated under this scenario.

Table 51 - Whole Route Revenue €000,000

Segment	Yellow		
	2020	2030	2040
1	13.7	17.1	21.6
2	17.6	22.6	28.3
3	16.2	20.9	27.2
4	20.4	25.0	31.0
Total	68.0	85.6	108.2
Segment	Green		
	2020	2030	2040
1	9.2	11.4	14.5
2	8.9	11.2	14.0
3	10.1	13.2	16.9
4	16.0	20.0	24.9
Total	44.2	55.8	70.3
Segment	Red		
	2020	2030	2040
1	11.4	14.2	17.8
2	13.7	17.3	21.7
3	16.0	20.6	26.8
4	20.3	24.8	30.9
Total	61.4	76.9	97.2
Segment	Orange		
	2020	2030	2040
1	8.1	10.1	12.9
2	8.4	10.5	13.4
3	9.5	12.4	15.9
4	15.4	19.2	24.0
Total	41.3	52.2	66.2

Table 52 - Daily 2-way Passenger Demand

2-way Daily Flow	Red			Orange			Yellow			Green		
	2020	2030	2040	2020	2030	2040	2020	2030	2040	2020	2030	2040
Tallinn to Parnu	3,015	3,361	3,721	2,261	2,485	2,755	-	-	-	-	-	-
Parnu to Riga	2,168	2,432	2,695	1,510	1,672	1,867	-	-	-	-	-	-
Tallinn to Tartu	-	-	-	-	-	-	3,068	3,378	3,716	2,144	2,305	2,545
Tartu to Valmiera	-	-	-	-	-	-	1,819	2,088	2,276	1,043	1,150	1,272
Valmiera to Riga	-	-	-	-	-	-	2,735	3,062	3,314	1,805	1,926	2,083
Riga to Jelgava	-	-	-	3,067	3,324	3,625	-	-	-	3,325	3,581	3,867
Jelgava to Kaunas	-	-	-	2,034	2,211	2,402	-	-	-	2,157	2,343	2,530
Riga to Panevezys	2,566	2,837	2,945	-	-	-	2,603	2,883	2,989	-	-	-
Panevezys to Kaunas	4,611	4,972	5,120	-	-	-	4,649	5,018	5,165	-	-	-
Kaunas to Poland	1,114	1,038	856	857	768	710	1,104	1,021	836	844	751	694

Average train loadings have been calculated based on an assumed train capacity of 400 and a service pattern of 8 trains per day. These are shown below. It is clear that the forecast demand does not exceed capacity on any section in any of the assessment years.

Table 53 - Average Train Loading

Train Loadings	Red			Orange			Yellow			Green		
	2020 €	2030 €	2040 €	2020 €	2030 €	2040 €	2020 €	2030 €	2040 €	2020 €	2030 €	2040 €
	0.08	0.08	0.10	0.07	0.08	0.09	0.08	0.09	0.10	0.06	0.07	0.08
Tallinn to Parnu	47%	53%	58%	35%	39%	43%	-	-	-	-	-	-
Parnu to Riga	34%	38%	42%	24%	26%	29%	-	-	-	-	-	-
Tallinn to Tartu	-	-	-	-	-	-	48%	53%	58%	34%	36%	40%
Tartu to Valmiera	-	-	-	-	-	-	28%	33%	36%	16%	18%	20%
Valmiera to Riga	-	-	-	-	-	-	43%	48%	52%	28%	30%	33%
Riga to Jelgava	-	-	-	48%	52%	57%	-	-	-	52%	56%	60%
Jelgava to Kaunas	-	-	-	32%	35%	38%	-	-	-	34%	37%	40%
Riga to Panevezys	40%	44%	46%	-	-	-	41%	45%	47%	-	-	-
Panevezys to Kaunas	72%	78%	80%	-	-	-	73%	78%	81%	-	-	-
Kaunas to Poland	17%	16%	13%	13%	12%	11%	17%	16%	13%	13%	12%	11%

7.2.1.5 Passenger Sensitivity Tests

A number of different sensitivity tests have been undertaken where key input assumptions in the model process have been altered. Tests have included:

- Rail Baltic Service Frequency;
- Rail Baltic Journey Times;

In each test the central case scenario has been adjusted and re-assigned to determine the impact on passenger demand and revenue of varying one input assumption in isolation.

Table below summarises the key results statistics for the central case against which the sensitivity tests will be compared

Table 54 - Central Case Key Results Statistics

		2020	2030	2040
Red Route	Volume in Million passenger km	665	728	771
	Revenue in Million Euros	61.4	76.9	97.2
Orange Route	Volume in Million passenger km	497	537	585
	Revenue in Million Euros	41.3	52.2	66.2
Yellow Route	Volume in Million passenger km	745	818	863
	Revenue in Million Euros	68.0	85.6	108.2
Green Route	Volume in Million passenger km	551	589	636
	Revenue in Million Euros	44.2	55.8	70.3

Rail Baltic Passenger Service Frequency Sensitivity

A test scenario has been assessed with an hourly Rail Baltica service frequency. This compares to the 2-hourly service frequency adopted in the central case. Table below summaries the key results statistics for this scenario and compares the patronage and revenue against the Central Case.

Table 55 - Hourly Service Key Results Statistics

Options		2020		2030		2040	
		% difference to Central Case		% difference to Central Case		% difference to Central Case	
Red Route	Volume in Million passenger km	957	44%	1055	45%	1133	47%
	Revenue in Million Euros	87.3	42%	110.0	43%	138.4	42%
Orange Route	Volume in Million passenger km	762	53%	815	52%	870	49%
	Revenue in Million Euros	62.5	51%	79.0	51%	99.4	50%
Yellow Route	Volume in Million passenger km	1,205	62%	1330	63%	1423	65%
	Revenue in Million Euros	106.7	57%	134.9	58%	169.6	57%
Green Route	Volume in Million passenger km	901	63%	966	64%	1046	65%
	Revenue in Million Euros	70.0	58%	89.2	60%	113.4	61%

The table above shows that when the number of trains doubles (increase in frequency from 2-hourly to hourly), the revenue and demand only increase by 40% - 65%. This indicates that the average train load factors and revenue per train would be lower for hourly service and will not offset the increase in operating costs.

Table below shows the increase in passenger volumes when the frequency doubles, by route section. This indicates that there are several sections where doubling the frequency of the service does lead to a doubling of passenger demand, possibly making a more frequent service viable.

Table 56 - Increase in passenger demand with hourly service when compared to 2-hourly central case

increase in passenger demand	Red			Orange			Yellow			Green		
	2020	2030	2040	2020	2030	2040	2020	2030	2040	2020	2030	2040
Tallinn to Parnu	55%	56%	56%	68%	68%	67%						
Tallinn to Tartu							114%	115%	116%	76%	78%	81%
Parnu to Riga	46%	47%	49%	60%	59%	57%						
Tartu to Valmiera							49%	49%	49%	100%	105%	109%
Valmiera to Riga							64%	63%	63%	93%	98%	101%
Riga to Jelgava				76%	75%	71%				72%	71%	69%
Jelgava to Siauliai				35%	33%	29%				30%	29%	26%
Riga to Panevezys	30%	31%	34%				29%	30%	33%			
Siauliai to Kaunas				35%	33%	29%				30%	29%	26%
Panevezys to Kaunas	46%	46%	49%				45%	46%	48%			
Kaunas to Poland	45%	46%	50%	45%	35%	22%	46%	48%	52%	47%	37%	24%

Rail Baltic Passenger Journey Time Sensitivity

Two test scenarios have been assessed with improved Rail Baltica service speed. In the first scenario all Rail Baltica journey sections have 15% higher speed compared to the central case, in the second scenario average speeds are increased by 30%. Table below summaries the key results statistics for the 15% increased speed scenario and summaries the key results statistics for the 30% increased speed scenario. Both tables include a comparison of patronage and revenue against the Central Case.

Table 57 - 15% Faster Service Key Results Statistics

Options		2020 % difference to Central Case		2030 % difference to Central Case		2040 % difference to Central Case	
Red Route	Volume in Million passenger km	742	12%	814	12%	864	12%
	Revenue in Million Euros	68.2	11%	85.6	11%	108.2	11%
Orange Route	Volume in Million passenger km	596	20%	644	20%	700	20%
	Revenue in Million Euros	49.2	19%	62.0	19%	78.4	18%
Yellow Route	Volume in Million passenger km	844	13%	927	13%	980	14%
	Revenue in Million Euros	76.4	12%	96.3	12%	121.7	12%
Green Route	Volume in Million passenger km	694	26%	747	27%	807	27%
	Revenue in Million Euros	54.5	23%	69.0	24%	86.8	24%

Table 58 - 30% Faster Service Key Results Statistics

Options		2020 % difference to Central Case		2030 % difference to Central Case		2040 % difference to Central Case	
Red Route	Volume in Million passenger km	806	21%	887	22%	943	22%
	Revenue in Million Euros	73.7	20%	92.8	21%	117.5	21%
Orange Route	Volume in Million passenger km	674	36%	729	36%	790	35%
	Revenue in Million Euros	55.4	34%	69.9	34%	87.9	33%
Yellow Route	Volume in Million passenger km	925	24%	1018	24%	1078	25%
	Revenue in Million Euros	83.3	23%	105.1	23%	133.0	23%
Green Route	Volume in Million passenger km	784	42%	844	43%	911	43%
	Revenue in Million Euros	61.1	38%	77.5	39%	97.2	38%

As expected, increasing the average journey speed increases both demand and revenue. The impact is less marked for the faster routes (Red route, Option 1 and Yellow route Option 3), however, as these route options already offer significant journey time savings over the alternative modes in the central case. It can also be seen that the increases in revenue are greater when increasing the central case speeds by 15% than when increasing the speeds from +15% to +30%. This implies there is limited scope to generate much higher revenues by increasing design speed.

Abstraction from existing modes

Table below shows the number of trips that will be abstracted from existing modes in 2020. It should be noted that whilst some of these trips will be long distance trips, such as Tallinn to Warsaw, the majority of the trips on Rail; Baltica will be much shorter distance trips within the states themselves.

Table 59 - Abstraction from existing modes

2020 (Total trips per day, 2-way)		Red	Yellow	Green	Orange
Trips Diverted from Existing modes	Car	2,133 (28%)	2,322 (25%)	1,632 (26%)	1,473 (27%)
	Bus	3,452 (45%)	3,894 (43%)	2,379 (38%)	2,122 (39%)
	Rail	222 (3%)	827 (9%)	819 (13%)	481 (9%)
	Air	844 (11%)	771 (8%)	599 (10%)	698 (13%)
Induced Trips		1,039 (14%)	1,332 (15%)	804 (13%)	722 (13%)
Total Rail Baltica Trips per Day		7,689	9,146	6,234	5,496

It is clear from the data above that for all options there is a significant diversion from coach; the diversion from rail is highest for options which follow existing rail routes; and diversion from air is highest for the fastest route options

7.2.2 Freight Forecasts

7.2.2.1 Core Assumptions

The model has been designed to allow easy sensitivity testing of some of the key variables. Options within the freight model include:

- Routing Option 1 (Red):
 - Lithuania - Riga via Panevezys
 - Riga – Tallinn via Parnu
- Routing Option 2 (Orange):
 - Lithuania - Riga via Jelgava
 - Riga – Tallinn via Parnu
- Routing Option 3 (Yellow):
 - Lithuania - Riga via Panevezys
 - Riga – Tallinn via Tartu
- Routing Option 4 (Green):
 - Lithuania - Riga via Jelgava
 - Riga – Tallinn via Tartu
- Rail price options low, medium and high
- Induced demand options low, medium and high
- Potential increase in traffic with green agenda or not
- Choice of 70kph or 90kph



In the current model, each of the routes, red, orange, yellow and green, use Palemonas as the main Kaunas station with no 1435mm access to Kaunas Central Station and no need for tunnel upgrades. The freight hub would be built away from the housing areas on the direct line to reduce the impact of the development on the community. This means that freight trains can avoid the busy central station area and reduces the chance of delays to both passenger and freight trains thus increasing the reliability of the Rail Baltica line. In case of incidents the option for freight trains to travel via central station should be considered but would be an expensive option.

Key Growth Assumptions

The core scenarios discussed below are based on a mid set of assumptions in relation to core factors such as price, speed, induced demand and the green agenda. We have subsequently undertaken sensitivity tests based on a low and high scenario. The core assumptions adopted for these scenarios are outlined below.

- | | |
|-------------|-------------------------|
| Medium Case | - Medium Freight Price |
| | - Average Speed 70kph |
| | - 15% induced demand |
| | - No green agenda |
| Low Case | - Highest Freight Price |
| | - Average Speed 70kph |
| | - No induced demand |
| | - No green agenda |
| High Case | - Low Freight Price |
| | - Average speed 90kph |
| | - 30% induced demand |
| | - Strong green agenda |

7.2.2.2 Central Case Freight Forecast (Medium Case Assumptions)

The following outputs show the model results for each of the 4 routing scenarios under the medium price and induced demand scenarios and with a speed of 70kph. Results have been derived for key freight service indicators, including:

- Volume of Freight Carried (in million Tonnes)
- Revenue (in million Euros)
- Journey Time savings (in million Euros)
- CO₂ Savings in Tonnes
- GHG CO₂E Savings in Tonnes

Table 60 - Central Case

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	9.8	12.9	15.8
	Revenue in Million Euros	132	176	222
	Journey Time savings in Million Euros	37	52	69
	CO ₂ Saved Tonnes	374	517	672
	GHG CO ₂ E Saved Tonnes	380	525	683
Orange Route	Volume in Million Tonnes	7.6	10.1	12.6
	Revenue in Million Euros	106	144	188
	Journey Time savings in Million Euros	25	36	50
	CO ₂ Saved Tonnes	264	377	514
	GHG CO ₂ E Saved Tonnes	269	383	522

Yellow Route	Volume in Million Tonnes	8.1	10.6	13.2
	Revenue in Million Euros	107	144	187
	Journey Time savings in Million Euros	25	36	50
	CO ₂ Saved Tonnes	268	380	513
	GHG CO ₂ E Saved Tonnes	273	386	521
Green Route	Volume in Million Tonnes	6.6	8.7	10.9
	Revenue in Million Euros	88	120	160
	Journey Time savings in Million Euros	18	26	38
	CO ₂ Saved Tonnes	200	267	405
	GHG CO ₂ E Saved Tonnes	204	291	412

In the central case the red route provides the highest volumes carried, revenue, journey time saving and emissions savings, this is due to the red route being the shortest of the four routes so attracting the largest modal shift. The Orange and Yellow routes are very similar due to having similar distances and the green route provides the lowest volumes carried, revenues, journey time savings and emissions savings.

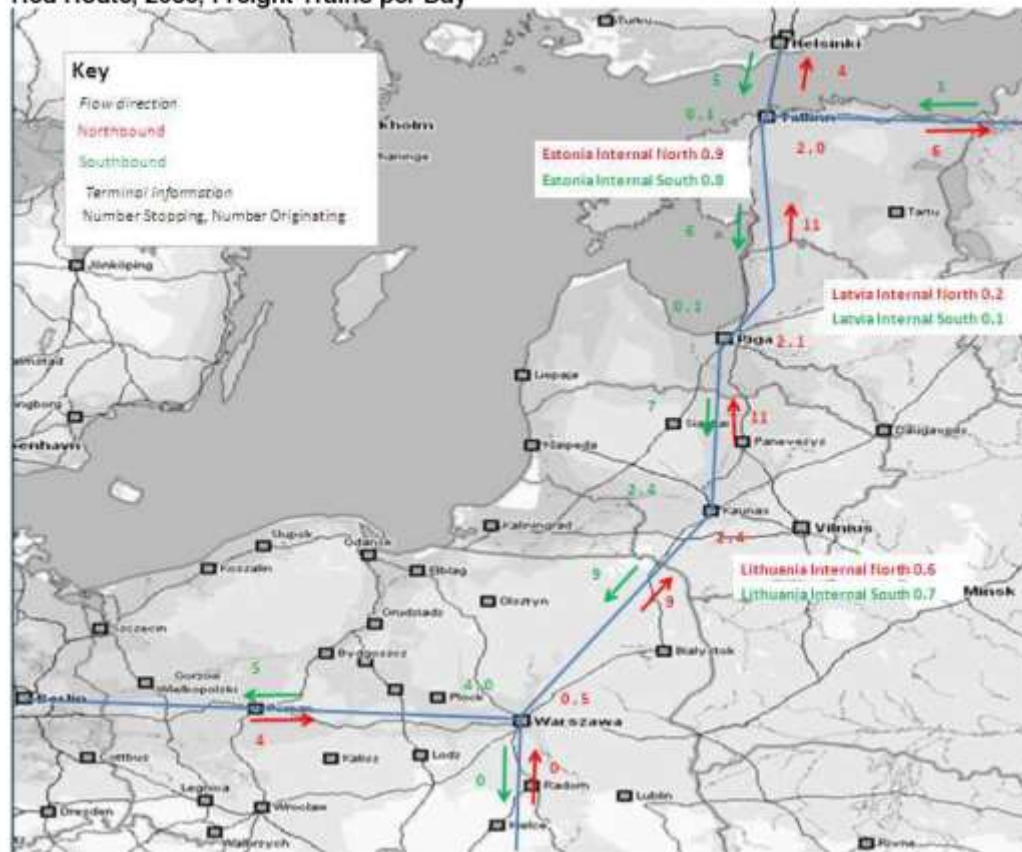
The COWI Report page 221 states that 60 million tonnes is expected to be moved on the North-South Corridor in the Baltic States in 2034, 22% of this is expected to be by Rail, thus 13 million tonnes carried by rail.

The figures below show the central case freight trains per day for 2020, 2030 and 2040. Terminal information is shown in form first figure = number stopping, second figure = number originating. The red arrows represent northbound traffic and green arrows represents southbound. Figures for international traffic are rounded to integers therefore in some instances it may appear that there is a difference of one train between the inbound and outbound trains at a particular stop. The potential internal traffic shown is in addition to the international traffic represented upon the lines.

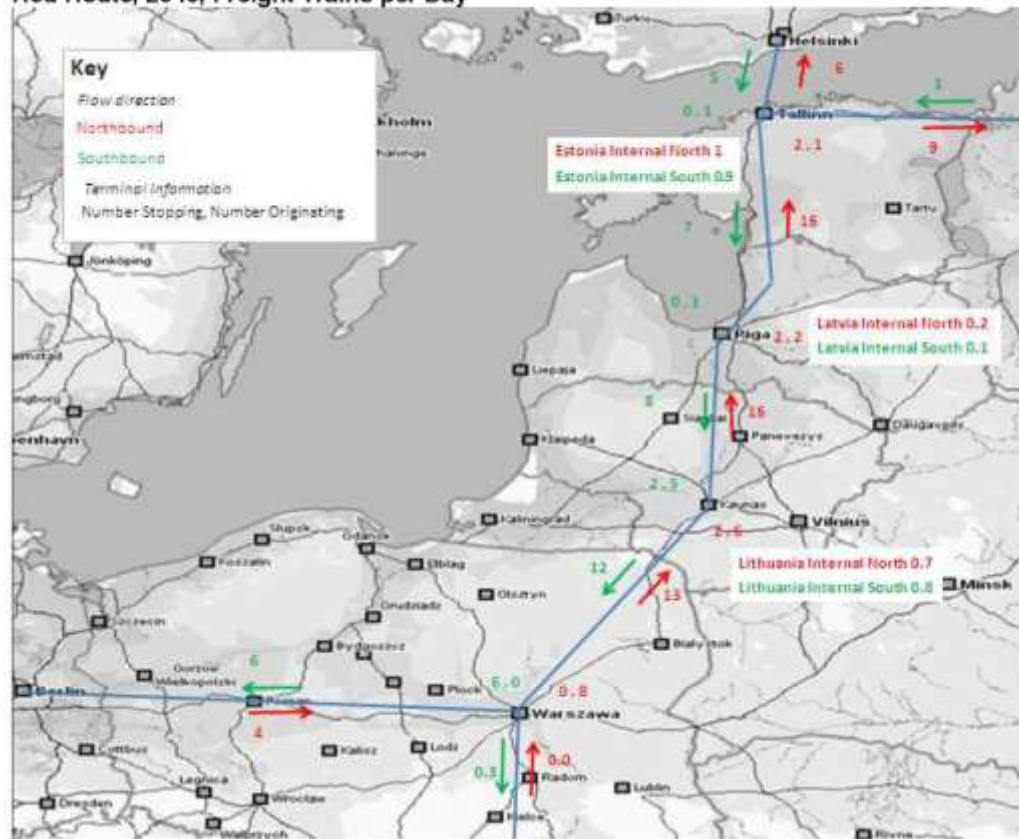
The imbalance in northbound and southbound traffic predicted within the model may affect the potential volumes available on the sections through Latvia and Estonia in particular as it is unlikely that a backload will be able to be found for much of the potential traffic (roughly twice as much demand is predicted northbound as southbound). This could lead to increased costs for the freight operating companies and therefore tariffs may be higher.

For each major city there are two numbers in green for southbound trains, the first number describes the number of freight trains that terminate at that freight yard; the second figure is those that originate from that yard and continue south. These figures DO NOT include the international trains that call en-route to set down and pick up. Against the green arrow is the number of international trains heading south between countries. Lastly domestic trains are only shown in the white boxes described as "internal trains". They should NOT be confused with the number of international trains.

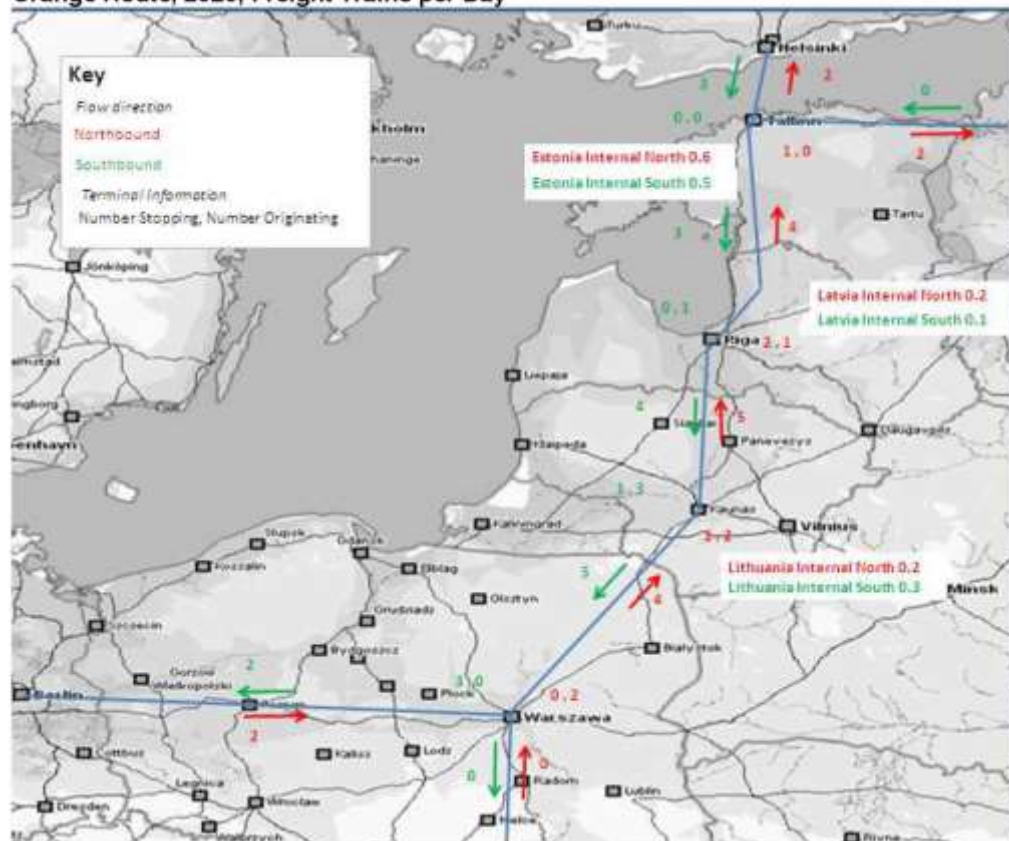
Red Route, 2030, Freight Trains per Day



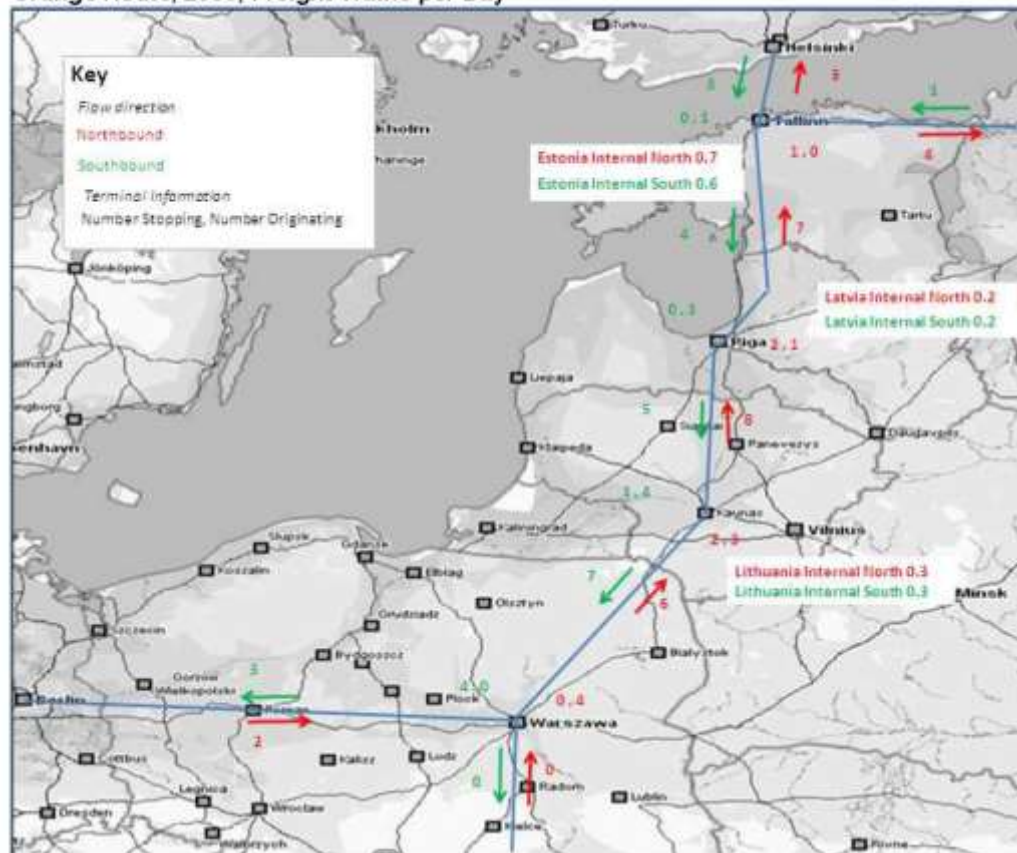
Red Route, 2040, Freight Trains per Day



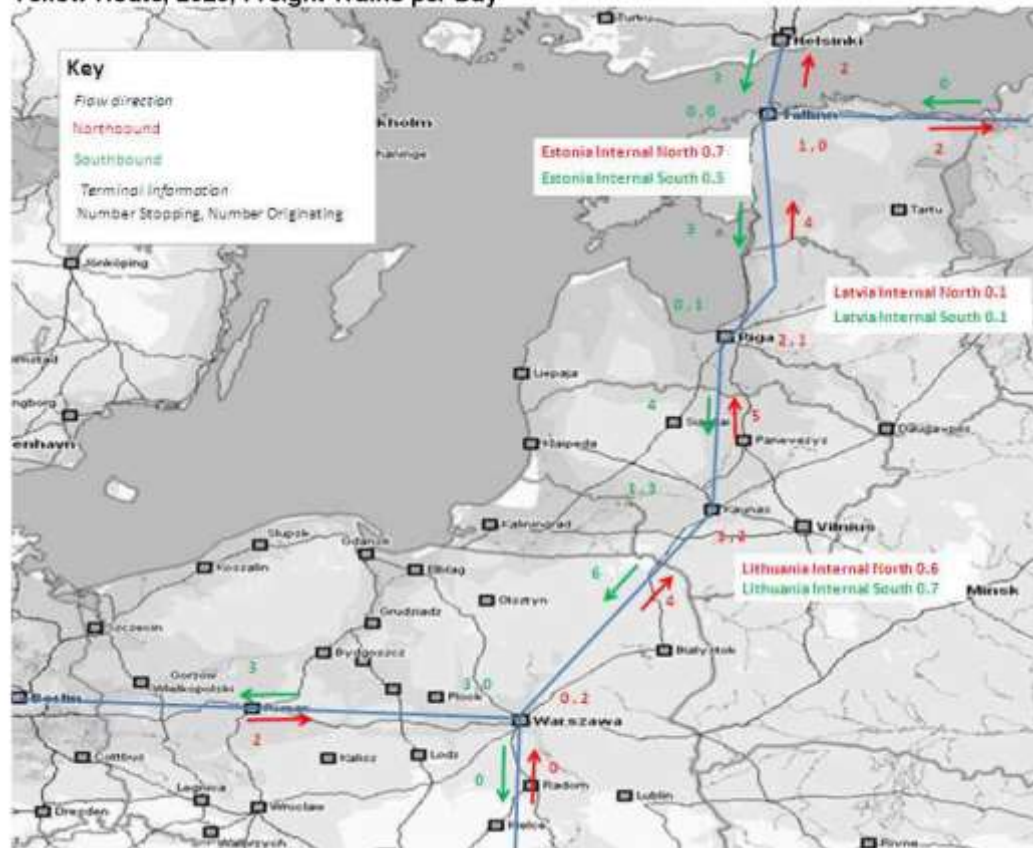
Orange Route, 2020, Freight Trains per Day



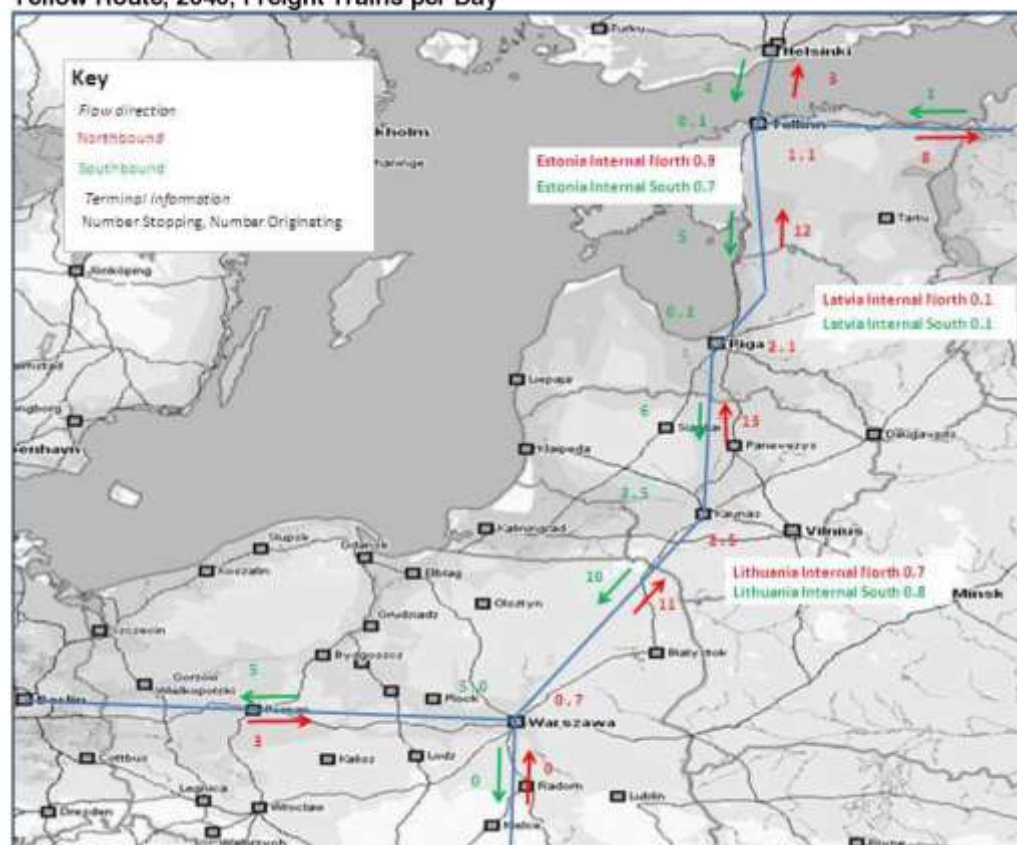
Orange Route, 2030, Freight Trains per Day



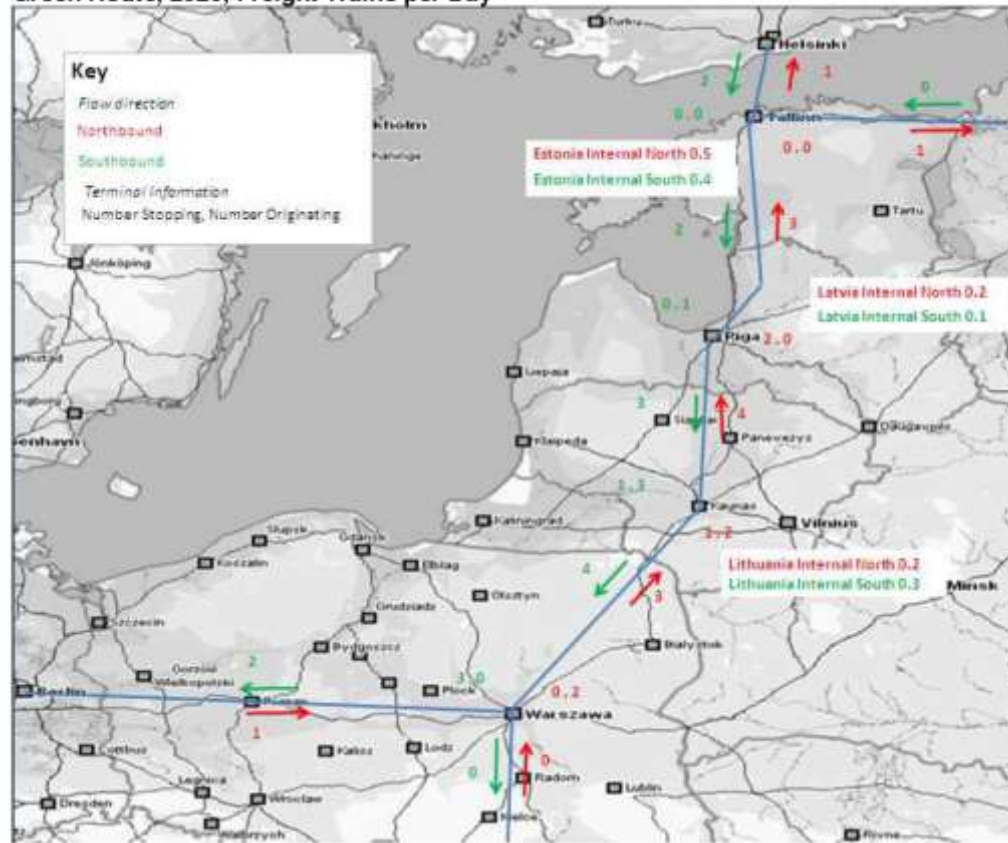
Yellow Route, 2020, Freight Trains per Day



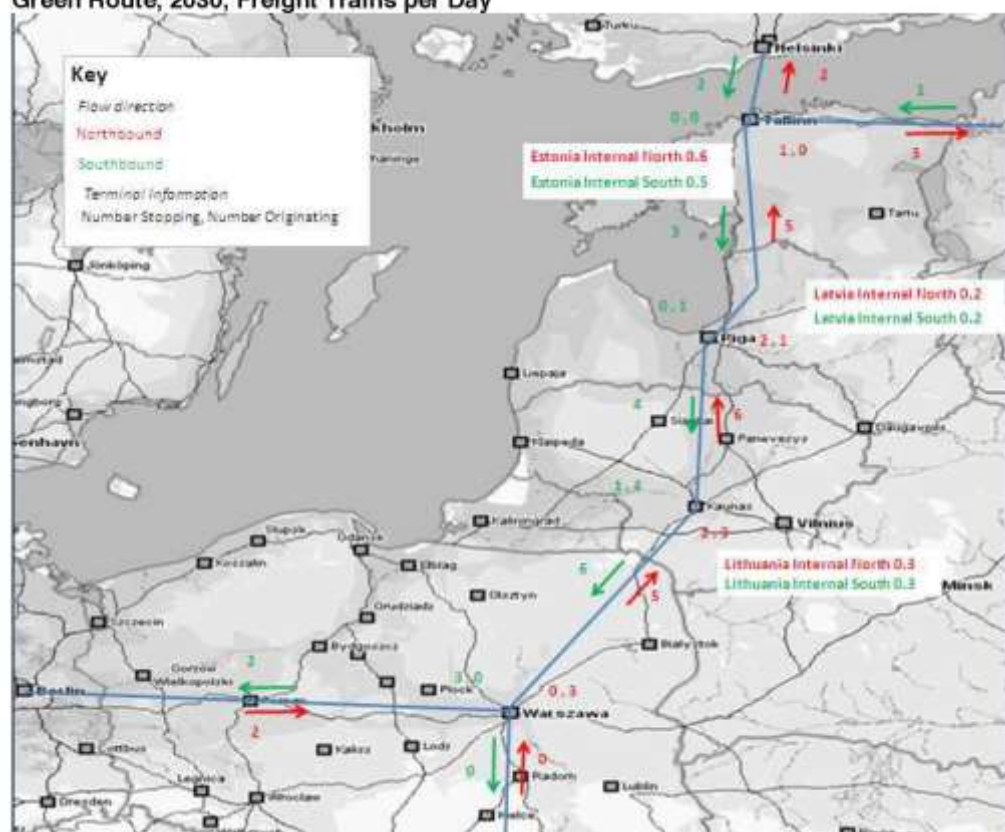
Yellow Route, 2040, Freight Trains per Day



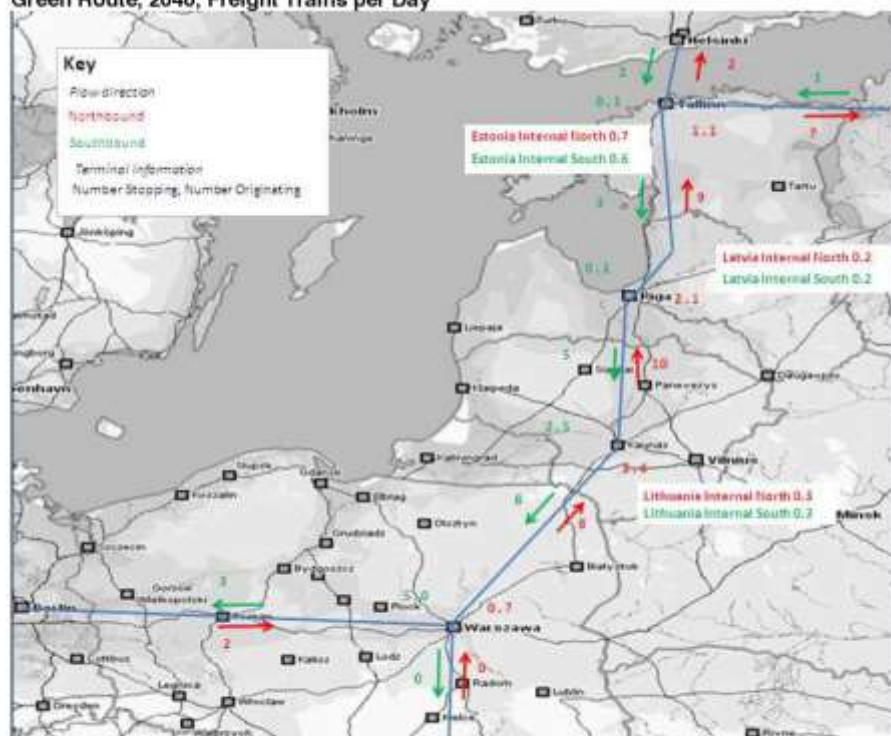
Green Route, 2020, Freight Trains per Day



Green Route, 2030, Freight Trains per Day



Green Route, 2040, Freight Trains per Day



7.2.2.3 Freight Sensitivity Tests

A number of sensitivity tests have been undertaken using the freight demand model.

- Higher and lower freight prices
- Higher and lower levels of induced demand
- Introducing the effect of a stronger green agenda affecting modal choice
- Higher average speed of freight trains, raised from 70 to 90kph

For each of the modelled years 2020, 2030 and 2040 the following attributes have been calculated:

- Volume of Freight Carried (in million Tonnes)
- Revenue (in million Euros)
- Journey Time savings (in million Euros)
- CO₂ Savings in Tonnes
- GHG CO₂E Savings in Tonnes

For each scenario a sensitivity results table has been produced for all four routing options (red, orange, yellow and green) for the three pricing categories, low, medium and high.

Rail Baltic Freight Price Sensitivity

The first sensitivity tested is the price; keeping all other factors the same the prices have been changed to low and high figures based on averages of actual tariffs and are shown in Tables below.

Table 61 - Low Price

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	19.1	23.5	27.5
	Revenue in Million Euros	200	245	287
	Journey Time savings in Million Euros	82	105	126
	CO ₂ Saved Tonnes	821	1040	1243
	GHG CO ₂ E Saved Tonnes	834	1057	1263
Orange Route	Volume in Million Tonnes	16.4	20.4	24.1
	Revenue in Million Euros	188	234	276
	Journey Time savings in Million Euros	63	82	101
	CO ₂ Saved Tonnes	678	870	1059
	GHG CO ₂ E Saved Tonnes	689	885	1085
Yellow Route	Volume in Million Tonnes	17.0	20.9	24.7
	Revenue in Million Euros	187	232	275
	Journey Time savings in Million Euros	65	84	103
	CO ₂ Saved Tonnes	686	879	1068
	GHG CO ₂ E Saved Tonnes	697	894	1085
Green Route	Volume in Million Tonnes	14.9	18.5	22.0
	Revenue in Million Euros	177	221	265
	Journey Time savings in Million Euros	52	67	84
	CO ₂ Saved Tonnes	584	752	931
	GHG CO ₂ E Saved Tonnes	593	764	946

In the low price scenario all routes provide higher returns than the medium price scenario. The red route still performs best and the orange route performs slightly better than the yellow route. The orange route attracts greater bulk volumes between Latvia and Finland due to the shorter Riga-Tallinn leg, the yellow route tends to attract more short distance journeys than the orange route and this has an effect on the revenues accrued.

Table 62 - High Price

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	5.1	6.8	8.1
	Revenue in Million Euros	87	120	152
	Journey Time savings in Million Euros	19	28	37
	CO ₂ Saved Tonnes	188	271	353
	GHG CO ₂ E Saved Tonnes	191	276	359
Orange Route	Volume in Million Tonnes	4.0	5.4	6.5
	Revenue in Million Euros	67	97	131
	Journey Time savings in Million Euros	12	20	28
	CO ₂ Saved Tonnes	130	198	277
	GHG CO ₂ E Saved Tonnes	132	201	282
Yellow Route	Volume in Million Tonnes	4.2	5.6	6.8
	Revenue in Million Euros	68	97	131
	Journey Time savings in Million Euros	13	20	28
	CO ₂ Saved Tonnes	132	200	277
	GHG CO ₂ E Saved Tonnes	134	203	282
Green Route	Volume in Million Tonnes	3.4	4.6	5.7
	Revenue in Million Euros	55	80	115
	Journey Time savings in Million Euros	9	15	22
	CO ₂ Saved Tonnes	98	152	229
	GHG CO ₂ E Saved Tonnes	100	155	232

The high price scenario substantially reduces the volumes carried by all routes, and thus impacts on the revenue, journey time savings and emissions savings. Notably the emissions saved are almost halved by increasing the price from medium to high.

As can be seen from the sensitivity testing carried out the levels of traffic which are likely to be seen on Rail Baltica are highly dependent on price and are also relatively dependent on the routing option selected (as this affects both the attractiveness of the journey time and the distance and therefore price). As noted previously different pricing systems are in place in each of the countries. In order to get the most out of the line a consistent and simple pricing system will be required such as is in operation for the specialised container trains provided as a joint offer to destinations such as Moscow, Odessa and Central Asia.

The policy within the tariffs of charging twice as much for a 40' as a 20' may deter intermodal traffic from using the line. Quoted prices for sea freight generally have 40' containers charged at between 20% and 60% more than 20' containers and road freight operators charge the same for both. The use of 40' containers has generally been rising for many of the flows likely to be attracted to Rail Baltica therefore this issue is likely to become more rather than less important in the future. Quoted prices for Estonian rail freight do not indicate a 2:1 differential therefore it is assumed that there may be some flexibility in this tariff structure.

Rail Baltic Induced Freight Demand Sensitivity

Induced demand is new business attracted to the area and hence railway line because of the enhanced infrastructure. Many new roads, ports and railways generate interest from inward investors that consider the potential offered by new infrastructure that typically might improve journey times and connect centres of population that were previously poorly served. We have assumed a 15% induced demand in the central case. The effect of removing any induced demand, and having 30% induced demand has been calculated for each route and each pricing structure. The induced demand is applied as a direct uplift on freight volumes and does not affect the modal share. As can be seen in the table below that this uplift relates directly to the volume carried, revenue, journey time saved and emission saved, and as an example the central case is 15% higher than the "no induced" demand.

It should be noted that the effect of the induced demand has been included in the journey time and CO2 saved calculations even though this volume is not taken from other modes. By the nature of induced demand it should be thought of as "new" traffic, however, it could be considered that businesses relocating in order to take advantage of the new infrastructure would make similar distance journeys from their existing base and so these savings should be included in the calculations.

Table 63 - Low Price No Induced Demand

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	16.6	20.4	23.9
	Revenue in Million Euros	174	213	249
	Journey Time savings in Million Euros	71	91	110
	CO ₂ Saved Tonnes	713	904	1081
	GHG CO ₂ E Saved Tonnes	725	919	1098
Orange Route	Volume in Million Tonnes	14.3	17.7	20.9
	Revenue in Million Euros	164	203	240
	Journey Time savings in Million Euros	55	71	88
	CO ₂ Saved Tonnes	590	757	921
	GHG CO ₂ E Saved Tonnes	599	769	944
Yellow Route	Volume in Million Tonnes	14.8	18.2	21.5
	Revenue in Million Euros	163	202	239
	Journey Time savings in Million Euros	56	73	89
	CO ₂ Saved Tonnes	597	765	928
	GHG CO ₂ E Saved Tonnes	606	777	944
Green Route	Volume in Million Tonnes	13.0	16.1	19.2
	Revenue in Million Euros	154	192	230
	Journey Time savings in Million Euros	45	59	73
	CO ₂ Saved Tonnes	508	654	809
	GHG CO ₂ E Saved Tonnes	516	665	822

The low price, no induced demand scenario shows the same trends as the low price central case but all values are 15% higher in the low price central case.

Table 64 - Medium Price No Induced Demand

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	8.6	11.2	13.8
	Revenue in Million Euros	115	153	193
	Journey Time savings in Million Euros	32	45	60
	CO ₂ Saved Tonnes	325	449	584
	GHG CO ₂ E Saved Tonnes	331	457	594
Orange Route	Volume in Million Tonnes	6.6	8.8	11.0
	Revenue in Million Euros	92	126	163
	Journey Time savings in Million Euros	22	31	43
	CO ₂ Saved Tonnes	230	328	447
	GHG CO ₂ E Saved Tonnes	234	333	454
Yellow Route	Volume in Million Tonnes	7.0	9.2	11.5
	Revenue in Million Euros	93	125	162
	Journey Time savings in Million Euros	22	32	44
	CO ₂ Saved Tonnes	233	330	446
	GHG CO ₂ E Saved Tonnes	237	335	453
Green Route	Volume in Million Tonnes	5.7	7.5	9.5
	Revenue in Million Euros	77	104	139
	Journey Time savings in Million Euros	16	23	33
	CO ₂ Saved Tonnes	174	249	352
	GHG CO ₂ E Saved Tonnes	177	253	358

Table 65 - High Price No Induced Demand

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	4.5	5.9	7.1
	Revenue in Million Euros	75	104	133
	Journey Time savings in Million Euros	17	24	32
	CO ₂ Saved Tonnes	163	236	307
	GHG CO ₂ E Saved Tonnes	166	240	312
Orange Route	Volume in Million Tonnes	3.5	4.7	5.7
	Revenue in Million Euros	58	84	114
	Journey Time savings in Million Euros	11	17	24
	CO ₂ Saved Tonnes	113	172	241
	GHG CO ₂ E Saved Tonnes	115	175	245
Yellow Route	Volume in Million Tonnes	3.6	4.9	5.9
	Revenue in Million Euros	59	84	114
	Journey Time savings in Million Euros	11	17	25
	CO ₂ Saved Tonnes	115	174	241
	GHG CO ₂ E Saved Tonnes	116	176	245
Green Route	Volume in Million Tonnes	3.0	4.0	5.0
	Revenue in Million Euros	48	70	100
	Journey Time savings in Million Euros	8	13	20
	CO ₂ Saved Tonnes	85	132	199
	GHG CO ₂ E Saved Tonnes	87	134	202

Table 66 - Low Price 30% Induced Demand

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	21.6	26.5	31.1
	Revenue in Million Euros	226	277	324
	Journey Time savings in Million Euros	92	118	142
	CO ₂ Saved Tonnes	928	1175	1405
	GHG CO ₂ E Saved Tonnes	943	1195	1428
Orange Route	Volume in Million Tonnes	18.6	23.0	27.2
	Revenue in Million Euros	213	264	313
	Journey Time savings in Million Euros	71	93	114
	CO ₂ Saved Tonnes	767	984	1197
	GHG CO ₂ E Saved Tonnes	779	1000	1227
Yellow Route	Volume in Million Tonnes	19.2	23.7	27.9
	Revenue in Million Euros	212	262	310
	Journey Time savings in Million Euros	73	95	116
	CO ₂ Saved Tonnes	776	994	1207
	GHG CO ₂ E Saved Tonnes	788	1010	1227
Green Route	Volume in Million Tonnes	16.9	20.9	24.9
	Revenue in Million Euros	201	250	299
	Journey Time savings in Million Euros	58	76	95
	CO ₂ Saved Tonnes	660	850	1052
	GHG CO ₂ E Saved Tonnes	671	864	1069

Table 67 - Medium Price 30% Induced Demand

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	11.1	14.6	17.9
	Revenue in Million Euros	149	199	251
	Journey Time savings in Million Euros	42	59	78
	CO ₂ Saved Tonnes	423	584	759
	GHG CO ₂ E Saved Tonnes	430	594	772
Orange Route	Volume in Million Tonnes	8.6	11.4	14.3
	Revenue in Million Euros	120	163	213
	Journey Time savings in Million Euros	28	41	57
	CO ₂ Saved Tonnes	299	426	581
	GHG CO ₂ E Saved Tonnes	304	433	590
Yellow Route	Volume in Million Tonnes	9.1	12.0	14.9
	Revenue in Million Euros	120	163	211
	Journey Time savings in Million Euros	29	41	57
	CO ₂ Saved Tonnes	303	429	580
	GHG CO ₂ E Saved Tonnes	308	436	589
Green Route	Volume in Million Tonnes	7.4	9.8	12.3
	Revenue in Million Euros	100	136	181
	Journey Time savings in Million Euros	20	30	43
	CO ₂ Saved Tonnes	226	324	458
	GHG CO ₂ E Saved Tonnes	230	329	466

Table 68 - High Price, 30% Induced Demand

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	5.8	7.7	9.2
	Revenue in Million Euros	98	136	172
	Journey Time savings in Million Euros	22	32	42
	CO ₂ Saved Tonnes	212	306	399
	GHG CO ₂ E Saved Tonnes	216	312	405
Orange Route	Volume in Million Tonnes	4.5	6.1	7.4
	Revenue in Million Euros	76	110	148
	Journey Time savings in Million Euros	14	22	32
	CO ₂ Saved Tonnes	147	224	314
	GHG CO ₂ E Saved Tonnes	150	228	319
Yellow Route	Volume in Million Tonnes	4.7	6.3	7.7
	Revenue in Million Euros	76	110	148
	Journey Time savings in Million Euros	14	22	32
	CO ₂ Saved Tonnes	149	226	314
	GHG CO ₂ E Saved Tonnes	151	229	319
Green Route	Volume in Million Tonnes	3.9	5.2	6.5
	Revenue in Million Euros	62	90	130
	Journey Time savings in Million Euros	10	16	25
	CO ₂ Saved Tonnes	111	172	259
	GHG CO ₂ E Saved Tonnes	113	175	263

Green Agenda Sensitivity

Although the environmental impacts of transport on the climate are now widely discussed and understood, most organisations are still making choices as to which mode of transport to use based mainly on price and service rather than that of environmental impacts such as level of Carbon Dioxide produced. However in the future it is expected that with schemes such as carbon trading that the green agenda could have more effect. So in addition to the modal choice calculations we have factored in a "green agenda" sensitivity, shifting an additional 10% of road freight onto rail. This increases the modal share of rail and thus increases the revenues, journey time savings and emission savings across all pricing structures.

It should be noted that the effect of the green agenda is increased in scenarios where the base has lower volumes for rail; this can be seen in the tables below where the orange, yellow and green routes show a greater improvement than the red route.

This effect can be significantly higher than expected and as an example on the green route the increase in rail volumes is in the region of 40% higher.

Table 69 - Low Price, Green Agenda

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	21.1	25.4	29.6
	Revenue in Million Euros	218	262	305
	Journey Time savings in Million Euros	88	110	132
	CO ₂ Saved Tonnes	881	1097	1306
	GHG CO ₂ E Saved Tonnes	896	1115	1328
Orange Route	Volume in Million Tonnes	18.6	22.4	26.3
	Revenue in Million Euros	211	256	300
	Journey Time savings in Million Euros	69	88	107
	CO ₂ Saved Tonnes	745	935	1129
	GHG CO ₂ E Saved Tonnes	757	950	1156
Yellow Route	Volume in Million Tonnes	19.1	23.0	26.9
	Revenue in Million Euros	208	252	296
	Journey Time savings in Million Euros	71	90	109
	CO ₂ Saved Tonnes	752	943	1137
	GHG CO ₂ E Saved Tonnes	765	958	1156
Green Route	Volume in Million Tonnes	17.1	20.7	24.3
	Revenue in Million Euros	202	246	291
	Journey Time savings in Million Euros	58	73	91
	CO ₂ Saved Tonnes	654	821	1006
	GHG CO ₂ E Saved Tonnes	665	835	1022

Table 70 - Medium Price, Green Agenda

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	12.3	15.3	18.4
	Revenue in Million Euros	163	206	254
	Journey Time savings in Million Euros	45	60	78
	CO ₂ Saved Tonnes	456	599	761
	GHG CO ₂ E Saved Tonnes	464	608	773
Orange Route	Volume in Million Tonnes	10.2	12.7	15.4
	Revenue in Million Euros	144	182	228
	Journey Time savings in Million Euros	33	44	59
	CO ₂ Saved Tonnes	352	465	610
	GHG CO ₂ E Saved Tonnes	358	473	620
Yellow Route	Volume in Million Tonnes	10.6	13.2	15.9
	Revenue in Million Euros	142	179	224
	Journey Time savings in Million Euros	34	45	59
	CO ₂ Saved Tonnes	355	468	609
	GHG CO ₂ E Saved Tonnes	361	475	618
Green Route	Volume in Million Tonnes	9.2	11.3	13.7
	Revenue in Million Euros	130	162	205
	Journey Time savings in Million Euros	26	34	47
	CO ₂ Saved Tonnes	291	380	506
	GHG CO ₂ E Saved Tonnes	295	386	514

Table 71 - High Price, Green Agenda

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	7.9	9.6	11.1
	Revenue in Million Euros	140	173	209
	Journey Time savings in Million Euros	28	38	48
	CO ₂ Saved Tonnes	280	366	459
	GHG CO ₂ E Saved Tonnes	285	372	467
Orange Route	Volume in Million Tonnes	6.8	8.2	9.6
	Revenue in Million Euros	131	161	200
	Journey Time savings in Million Euros	21	29	38
	CO ₂ Saved Tonnes	225	296	386
	GHG CO ₂ E Saved Tonnes	229	301	392
Yellow Route	Volume in Million Tonnes	7.0	8.4	9.8
	Revenue in Million Euros	126	156	193
	Journey Time savings in Million Euros	22	29	39
	CO ₂ Saved Tonnes	226	297	386
	GHG CO ₂ E Saved Tonnes	230	302	392
Green Route	Volume in Million Tonnes	6.3	7.5	8.8
	Revenue in Million Euros	122	149	189
	Journey Time savings in Million Euros	17	23	32
	CO ₂ Saved Tonnes	195	253	340
	GHG CO ₂ E Saved Tonnes	198	257	345

Rail Baltic Freight Speed Sensitivity

Higher speed sensitivity has been tested where the average speed of a freight train is 90 kph rather than 70 kph. There is a slight increase in volume carried, revenue, journey time saved and emissions saved from the central case. The comparatively small effect is because this factor only applies to the actual travelling time which makes up only part of the total journey time.

Table 72 - Low Price, Higher Speed

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	19.3	23.7	27.7
	Revenue in Million Euros	202	248	290
	Journey Time savings in Million Euros	92	117	141
	CO ₂ Saved Tonnes	831	1051	1255
	GHG CO ₂ E Saved Tonnes	844	1068	1275
Orange Route	Volume in Million Tonnes	16.6	20.5	24.2
	Revenue in Million Euros	190	236	279
	Journey Time savings in Million Euros	72	94	115
	CO ₂ Saved Tonnes	687	880	1069
	GHG CO ₂ E Saved Tonnes	698	894	1095
Yellow Route	Volume in Million Tonnes	17.1	21.1	24.8
	Revenue in Million Euros	189	234	277
	Journey Time savings in Million Euros	74	95	116
	CO ₂ Saved Tonnes	695	889	1078
	GHG CO ₂ E Saved Tonnes	706	903	1095
Green Route	Volume in Million Tonnes	15.1	18.6	22.2
	Revenue in Million Euros	179	223	267
	Journey Time savings in Million Euros	60	78	97
	CO ₂ Saved Tonnes	591	760	939
	GHG CO ₂ E Saved Tonnes	601	772	954

Table 73 - Medium Price, Higher Speed

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	10.0	13.0	16.0
	Revenue in Million Euros	135	179	225
	Journey Time savings in Million Euros	42	59	77
	CO ₂ Saved Tonnes	381	525	681
	GHG CO ₂ E Saved Tonnes	388	534	692
Orange Route	Volume in Million Tonnes	7.7	10.2	12.8
	Revenue in Million Euros	108	147	191
	Journey Time savings in Million Euros	29	41	57
	CO ₂ Saved Tonnes	270	383	521
	GHG CO ₂ E Saved Tonnes	274	389	529
Yellow Route	Volume in Million Tonnes	8.2	10.7	13.3
	Revenue in Million Euros	109	147	190
	Journey Time savings in Million Euros	29	42	57
	CO ₂ Saved Tonnes	274	386	520
	GHG CO ₂ E Saved Tonnes	278	392	529
Green Route	Volume in Million Tonnes	6.6	8.8	11.0
	Revenue in Million Euros	90	122	163
	Journey Time savings in Million Euros	21	30	43
	CO ₂ Saved Tonnes	204	291	411
	GHG CO ₂ E Saved Tonnes	207	296	417

Table 74 - High Price, Higher Speed

Options	Sensitivity	2020	2030	2040
Red Route	Volume in Million Tonnes	5.2	6.9	8.2
	Revenue in Million Euros	89	122	155
	Journey Time savings in Million Euros	21	31	41
	CO ₂ Saved Tonnes	192	275	358
	GHG CO ₂ E Saved Tonnes	195	280	363
Orange Route	Volume in Million Tonnes	4.0	5.4	6.6
	Revenue in Million Euros	68	99	133
	Journey Time savings in Million Euros	14	22	31
	CO ₂ Saved Tonnes	133	201	281
	GHG CO ₂ E Saved Tonnes	135	204	285
Yellow Route	Volume in Million Tonnes	4.2	5.7	6.8
	Revenue in Million Euros	69	99	132
	Journey Time savings in Million Euros	15	22	32
	CO ₂ Saved Tonnes	134	203	281
	GHG CO ₂ E Saved Tonnes	137	206	285
Green Route	Volume in Million Tonnes	3.5	4.7	5.8
	Revenue in Million Euros	56	81	117
	Journey Time savings in Million Euros	10	17	25
	CO ₂ Saved Tonnes	100	154	231
	GHG CO ₂ E Saved Tonnes	102	157	235

Rail Baltic Freight Sensitivity Summary

As a summary the sensitivity test results for the red route option (which is currently the preferred freight option) have been collated into a single table

Table 75 shows all the sensitivity tests for the red route option. The final line of the table shows the range for the different sensitivities. In summary in 2040:

- The central case has a volume moved of 15.8 million tonnes;
- In the same year the highest scenario with 30% induced demand and a low price gives a volume moved of 31.1 million tonnes;
- The lowest sensitivity has no induced demand and a high price, volume is 7.1 m. tonnes.

Table 75 - Red Route Sensitivities

Options	Price	Sensitivity	2020	2030	2040
Central Case		Volume in Million Tonnes	9.8	12.9	15.8
		Revenue in Million Euros	132	176	222
Pricing	Low Price	Volume in Million Tonnes	19.1	23.5	27.5
		Revenue in Million Euros	200	245	287
	Medium Price	Volume in Million Tonnes	9.8	12.9	15.8
		Revenue in Million Euros	132	176	222
	High Price	Volume in Million Tonnes	5.1	6.8	8.1
		Revenue in Million Euros	87	120	152
No Induced Demand	Low Price	Volume in Million Tonnes	16.6	20.4	23.9
		Revenue in Million Euros	174	213	249
	Medium Price	Volume in Million Tonnes	8.6	11.2	13.8
		Revenue in Million Euros	115	153	193
	High Price	Volume in Million Tonnes	4.5	5.9	7.1
		Revenue in Million Euros	75	104	133
30% Induced Demand	Low Price	Volume in Million Tonnes	21.6	26.5	31.1
		Revenue in Million Euros	226	277	324
	Medium Price	Volume in Million Tonnes	11.1	14.6	17.9
		Revenue in Million Euros	149	199	251
	High Price	Volume in Million Tonnes	5.8	7.7	9.2
		Revenue in Million Euros	98	136	172
Green Agenda	Low Price	Volume in Million Tonnes	21.1	25.4	29.6
		Revenue in Million Euros	218	262	305
	Medium Price	Volume in Million Tonnes	12.3	15.3	18.4
		Revenue in Million Euros	163	206	254
	High Price	Volume in Million Tonnes	7.9	9.6	11.1
		Revenue in Million Euros	140	173	209
Higher Speed	Low Price	Volume in Million Tonnes	19.3	23.7	27.7
		Revenue in Million Euros	202	248	290
	Medium Price	Volume in Million Tonnes	10.0	13.0	16.0
		Revenue in Million Euros	135	179	225
	High Price	Volume in Million Tonnes	5.2	6.9	8.2
		Revenue in Million Euros	89	122	155
Range	Maximum	Volume in Million Tonnes	21.6	26.5	31.1

	Minimum	Revenue in Million Euros	226	277	324
		Volume in Million Tonnes	4.5	5.9	7.1
		Revenue in Million Euros	75	104	133

Table 76 - Red Route Sensitivities Percentage Change from Central Case

Options	Price	Sensitivity	2020	2030	2040
Pricing	Low Price	Volume in Million Tonnes	94%	82%	74%
		Revenue in Million Euros	51%	39%	29%
	Medium Price	Volume in Million Tonnes	0%	0%	0%
		Revenue in Million Euros	0%	0%	0%
	High Price	Volume in Million Tonnes	-48%	-47%	-49%
		Revenue in Million Euros	-34%	-32%	-31%
No Induced Demand	Low Price	Volume in Million Tonnes	69%	58%	51%
		Revenue in Million Euros	31%	21%	13%
	Medium Price	Volume in Million Tonnes	-13%	-13%	-13%
		Revenue in Million Euros	-13%	-13%	-13%
	High Price	Volume in Million Tonnes	-55%	-54%	-55%
		Revenue in Million Euros	-43%	-41%	-40%
30% Induced Demand	Low Price	Volume in Million Tonnes	120%	106%	96%
		Revenue in Million Euros	71%	58%	46%
	Medium Price	Volume in Million Tonnes	13%	13%	13%
		Revenue in Million Euros	13%	13%	13%
	High Price	Volume in Million Tonnes	-41%	-40%	-42%
		Revenue in Million Euros	-26%	-23%	-22%
Green Agenda	Low Price	Volume in Million Tonnes	114%	97%	87%
		Revenue in Million Euros	65%	49%	38%
	Medium Price	Volume in Million Tonnes	25%	19%	16%
		Revenue in Million Euros	23%	17%	14%
	High Price	Volume in Million Tonnes	-20%	-26%	-30%
		Revenue in Million Euros	6%	-2%	-6%
Higher Speed	Low Price	Volume in Million Tonnes	96%	84%	75%
		Revenue in Million Euros	53%	41%	31%
	Medium Price	Volume in Million Tonnes	1%	1%	1%
		Revenue in Million Euros	2%	2%	2%
	High Price	Volume in Million Tonnes	-47%	-47%	-48%
		Revenue in Million Euros	-33%	-30%	-30%

There is an anomaly in the scenario with the green agenda and the high price. In the high rail prices scenarios there is a greater modal share for road and so when the green agenda factor is applied there is a greater modal shift, however due to the natural cost increase for road in comparison to other modes the modal share of road falls from 2020, to 2030 and 2040 and thus the green agenda effect is lessened. This is shown in the row above which has 6% change in revenue in 2020 to a -6% change by 2040.

Assessment

The demand attracted by Rail Baltica associated with Finland and St Petersburg has a risk element with regard to extra handling times and charges compared to sea or road modes. In order to assess the level of risk several sensitivity tests have been undertaken, firstly on the Finland-Germany route effect cost and time associated with the change from Sea to Rail has been calculated. Secondly, effect of the border waiting time for at the Russian border for road modes has been investigated.

Finland-Germany

Table 77 - Modal Split for Finland-Germany Non-Bulk Traffic with full costs

Year	Road	Rail	Sea
2020	0%	16%	84%
2030	0%	17%	83%
2040	0%	19%	81%

Table 78 - Modal Split for Finland-Germany Non-Bulk Traffic with Sea-Rail Handling cost removed

Year	Road	Rail	Sea
2020	0%	34%	66%
2030	0%	36%	64%
2040	0%	40%	60%

The tables above show that removing this extra interchange increases the demand for rail considerably.

Lithuania-Northwest Russia

Table 79 - Modal Split for Lithuania-Northwest Russia Non-Bulk Traffic with full costs

Year	Road	Rail	Sea
2020	74%	23%	3%
2030	73%	25%	2%
2040	74%	26%	1%

Table 80 - Modal Split for Lithuania-Northwest Russia Non-Bulk Traffic with Russian border waiting costs removed

Year	Road	Rail	Sea
2020	100%	0%	0%
2030	100%	0%	0%
2040	100%	0%	0%

With the costs and time relating to waiting to cross the Russian border for road modes removed, transporting freight by road becomes more favourable and takes the entire modal share for traffic from Lithuania going to North West Russia.

7.2.2.4 Freight Forecast Justification

Freight forecasts have been prepared based on sound data and methodologies. In fact, since the preparation of the freight model, a number of factors, some of which were expected, have all enhanced the case for being optimistic about rail freight's prospects given the right infrastructure and market conditions:

Continuing rise in world fuel prices.

Fuel taxes within the Baltic states are currently low compared to the European average therefore it is assumed that these will increase, in addition as fuel forms a higher proportion of road freight costs (36% approx according to TREMOVE) than for rail freight (14% according to LDZ), as oil prices and fuel duty increase in the long term road freight costs are likely to increase faster than the cost of rail. (source: page 89 of Interim Report).

Fuel prices have continued to rise and with demand from china and india its unlikely that they are likely to reduce significantly. Rail benefits from higher fuel prices.

Competition

The rail freight market in the UK has grown around 60% in tonne kilometres in the last ten years thanks partly to competition. Competition is not present yet within all Baltic States to a large degree. (source: page 89 of Interim Report).

Several privately owned rail freight companies are expanding rapidly across Europe and are looking for new opportunities to grow their business. The recent agreement between DB Schenker Rail Polska and Lithuanian Railways to operate freight trains from Poland to Šeštokai and invest in infrastructure also further supports the feeling that rail freight is on the rise. There is also evidence that private operators in Europe are looking to the container market for growth in long distance rail freight with the new Antwerp-Chongqing rail connection daily freight service showing that rail is a viable alternative to Sea for long distance journeys.

Container Market

The world container market is growing again and although parts of North-eastern Europe have a relatively low level of trade moving in containers this trend is likely to grow, which makes the transshipment of goods from road or shipping to rail much easier.

The growth in container traffic has been considerable in recent years except for the effects of the recession; Estonian Railways reported a 74% increase in container traffic in first quarter of 2011, to 8046 TEUs. There is also vast capacity for further growth with at present only one container train a day travelling between Estonia and Russia. Throughput at Estonia's ports could be enhanced by containerisation and boxes being moved on Roll On/Roll Off ferries between Finland and Tallinn feeding into Rail Baltica.

European Policy

It was known that EU Policy was favouring a move to more sustainable transport, hence schemes like Motorways of the Sea and TEN-T grants. So the recently issued European Commission White Paper "Roadmap to a Single European Transport Area" had few surprises. It states a number of key objectives towards improving the European transportation system, and Rail Baltica is a key part of these plans. Furthermore, Rail Baltica will become part of the TEN-T "Core" network connecting the Baltica states with the wider European network at Warsaw with a safe and reliable service which will boost trade between the Baltic States, Western European countries such as Poland, Germany and France and transit traffic between Finland, Russia and the rest of Europe. This will lead to increased trade between States, improved passenger service choice, reliability and speed and investment opportunities.

The EC White Paper "Roadmap to a Single European Transport Area" highlights ambitious but achievable aims to shift 30% and 50% of road freight journeys over 300 km to other modes by 2030 and 2050 respectively. Rail Baltica is in line with these ambitions by forecasting a change in modal split for Non-Bulk traffic from 46%/4%/50% (Road/Rail/Sea) in 2008 to 19%/22%/59% in 2040 showing that Rail Baltica will be well positioned to compete with Road and Sea in terms of attractiveness to customers.

Previous research

In previous work into forecasting the potential market for freight on the Rail Baltica corridor (page 143 final report volume 1) the COWI report expected 60 million tonnes to be moved on the North-South corridor in the Baltic States in 2034. 22% of this was predicted to be by rail, equating to 13 million tonnes. The study undertaken by AECOM is predicting 12.9 million tonnes by 2030 and 15.8 million tonnes by 2040 (page 143 final report volume 1) carried by rail, indicating that the current research is robust and consistent with previous work.

7.2.3 Forecast Summary

Table 81 - Summaries the key forecast indicators for the passenger and freight central cases.

2040 Forecast Summary		Option 1 Red	Option 2 Orange	Option 3 Yellow	Option 4 Green
Total Passenger km ('000,000)		771	585	863	636
Total Freight Tonnes ('000,000)		15.8	12.6	13.2	10.9
Revenue (€'000,000)	Passenger	97	66	108	70
	Freight	222	188	187	160
	Total	319	254	295	230

7.3 Review of options for compliance against existing Spatial Plans

Implementation of such an important transport infrastructure project as Rail Baltica is not possible without timely spatial planning at all planning levels. In all three Baltic States the planning system and approach are built on a similar platform – from national to local level. The difference is in the administrative levels and land use policies in each country.

As it was assumed at the very beginning stage of the project the Nuts 3 level was considered as a baseline and the assessment of spatial plans was based on the regional level.

In order to assess the compliance of the different options with the spatial plans, different level planning documents from all three Baltic countries were analysed and summarized.

The planning levels reviewed were:

- in Estonia – national level, district level, in some cases (in cities etc.) local government level spatial plans;
- in Latvia – national level, regional level, local government level spatial plans;
- in Lithuania – national level, district level, in some cases local government level spatial plans.

Detailed information for each of the options is given below.

Alternative I (Red)

Alternative I, the red route, is the most direct route from Tallinn to the border of Lithuania/Poland. Only over short sections of the route near Tallinn and Kaunas does it coincide with or goes alongside the existing rail track. The rest of the route crosses territories with other types of land use, primarily agricultural and forestland. In Estonia and Latvia the route is generally close to the VIA Baltica road corridor. In the National Spatial Plan of Estonia the route is included as one of three perspective alternatives for international rail routes (See Appendix D). In the Estonian district level planning documents the route is not defined. At the border of Latvia and Estonia (Haademeste) the old railway corridor is indicated as a potential route in the local municipality spatial plan.

In Latvia the section of the route between Aināži and Riga is located next to the VIA Baltica Riga-Tallinn highway. As in Estonia, this section of the route is only shown in the national level planning documents (Appendix D). Within the lower-level planning documents all that is shown is a section from Skulte as a prolongation of the existing railway line (Orange route). Around Riga the route goes through a perspective corridor, which is defined at national, regional as well as local municipality level. Currently two potential crossing points of the Riga HPP's (hydroelectric power plant) reservoir are earmarked in the spatial plans, the first over the existing reservoir dam and the second a new route directly across the reservoir. From Riga to the border of Latvia/Lithuania

the red option is defined in both national and regional level planning documents; however at a local level the route is only defined in the planning documents of the municipalities of the Riga agglomeration.

In Lithuania for the section up to Panevezys the route goes close to the VIA Baltica Riga-Vilnius highway. The section of the route from the border of Latvia/Lithuania up to Kaunas is not defined in the spatial plans. From Kaunas up to the border of Lithuania/Poland the red route matches the Rail Baltica rail route planned by the district and local municipalities (Appendix D).

Since Alternative 1 is basically only defined in the national level planning documents of Estonia and Latvia and even then has been assigned a low priority and because in Lithuania it is largely unidentified we believe that from the point of view of planning risk it should be allocated a medium risk factor.

As we concluded, the Alternative 1 is defined in national plans and strategies of Latvia and Estonia with different priority. A railway corridor around the Riga agglomeration is proposed in regional and local level planning documents. In Lithuania the Alternative 1 is defined just from Kaunas to Lithuania/Poland border in Long-term Strategy (until 2025) of Lithuanian Transport System Development. The same section of railway track is defined in regional spatial planning documents in Lithuania. These already reserved areas must be kept as Rail Baltica alternatives in spatial documents until the next planning steps.

Therefore for the next years is important to define railway track firstly in regional level spatial plans and development strategies for following administrative levels – Harju, Rapla, Pärnu counties in Estonia, Riga and Zemgale planning regions in Latvia, Panevezys and Kaunas districts in Lithuania. The perspective corridor of Alternative 1 is defined in such regional or district level spatial documents – territorial plan of Marijampoles and Kaunas district, spatial plan of Riga region as well as reserved territories for transport infrastructure in such local level planning documents – territorial plan of Marijampole municipality, territorial plan of Kekava, Salaspils, Garkalnes, Adazu, Sejas and Saulkrastu municipality. Estonia has only foreseen the Rail Baltica corridor in the national plan and no reservation has been made so far in planning documents of other, resp. lower level.

Totally the Alternative 1 is crossing 16 local municipalities, Tallinn, Pärnu cities and Rapla town in Estonia, accordingly 13 local municipalities, Riga city, Saulkrasti, Salaspils and Bauska towns in Latvia, 8 local municipalities, Kaunas city, Panevezis and Marijampoles towns in Lithuania. The municipalities are listed in the following table:

Table 82 - The municipalities crossing Alternative 1

Lithuania:	Latvia:	Estonia:
Kaunas	Riga	Tallinn
Panevezis	Bauska	Pärnu
Marijampole	Salaspils	Rapla
Marijampoles rajonas	Saulkrasti	Haademeeste vald
Prienai rajonas	Iecavas novads	Surju vald
Kaunas rajonas	Baldones novads	Sauga vald
Kaisiadoris rajonas	Kekavas novads	Are vald
Jonavas rajonas	Salaspils novads	Halinga vald
Kedainiai rajonas	Stopinu novads	Marijamaa vald
Panevezis rajonas	Bauskas novads	Raikkula vald
Pasvalis rajonas	Garkalnes novads	Rapla vald
	Adazu novads	Kohila vald
	Sejas novads	Kiili vald
	Saulkrastu novads	Rae vald
	Limbazu novads	Juuru vald
	Salacgrivas novads	Paikuse vald
	Ropazu novads	Saarde vald
		Saku vald
		Tahkuranna vald

Practically for all 37 local municipalities, 4 cities and 6 towns the spatial plans should be revised for defining the proposed railway track. To follow planning procedure the route has to be designated in spatial plans of the above listed administrative territories. The municipalities have to initiate and develop amendments to the existing spatial plans or develop new spatial plans for their territories. Spatial plans are planning documents that are subject for strategic environmental assessment. In average this process takes at least one year as involves public consultations.

For the last decade the Rail Baltica alternatives have been considered at several planning levels of Baltic States. The summarized information from the spatial plans about the perspective Rail Baltica routes is displayed in the Appendix D.

The proposed alignment of the Alternative I is only partly defined in the spatial plans of the national or regional level. To continue the project implementation it is important to ensure that already reserved sections of the Alternative I are kept in spatial plans of all levels until the next planning steps and the plans are amended accordingly to reserve the whole Alternative I.

Alternative II (Orange)

Alternative II, the orange route, runs adjacent to the existing railway line from Tallinn to the border of Lithuania/Poland through Parnu, Limbazi, Riga, Jelgava, Siauliai and Kaunas. This route therefore for most part crosses territories that are either already used or earmarked for railway development. The route is included in the National Spatial Plan of Estonia as one of three perspective alternatives for an international rail route (Appendix D). The route is defined as being of the highest priority option from the Estonian/Latvian border to Kaunas at National, regional and district planning levels.

As the route utilises the existing rail corridor which passes through numerous settlement areas then there is the possibility that a large number of plans will need revision and as such this route is designated as high risk from a planning perspective.

Alternative III (Yellow)

Alternative III, the yellow route consists mainly of a new alignment from Tallinn to the border of Lithuania/Poland. It goes through Tallinn, Tartu, Valga, Valmiera, Riga, Panevezys and Kaunas. The route is proposed as a new alignment from Tallinn to Tartu, from Tartu to Valmiera it goes close to the existing line and from Valmiera to the Lithuania/Poland border it is a new alignment. Near Tallinn and Kaunas the route is generally close to the existing rail track. From Riga to the Lithuania/Poland border this option follows the same alignment as the red route.

The section of the yellow route from Tallinn to Tartu is not defined in the spatial plans. In contrast the section from Tartu to Valmiera where the route follows the existing alignment is defined as the main alternative for Rail Baltica in Estonia and one of the alternatives in Latvia.

Around Riga the route passes through a perspective corridor, which is defined in national and regional spatial plans as well as in the spatial plans of the local municipalities. As with the red route two possible crossings of the hydroelectric power plant reservoir are identified. From Riga to the Lithuanian/Polish border the route is as the red option.

In general terms the planning risk of the yellow route is similar to that of the red route and so it has been designated as a medium risk.

Alternative IV (Green)

Alternative IV, the green route passes along the existing rail corridor from Tallinn to the border of Lithuania/Poland through Tartu, Valga, Valmiera, Riga, Jelgava, Siauliai and Kaunas. The green route by virtue of the fact that it is predominantly within the existing corridor crosses territories that are either already used or earmarked for railway development. The green route is included in the National Spatial Plan of Estonia as an option for an international rail route (Appendix D). In Latvia from the Estonian/Latvian border to Riga the green route is defined as an alternative for a new rail route, but from Riga to Kaunas the route is defined in the national, regional and district planning documents as the alignment with the highest priority.

Although the green route is included in the planning documents at all levels and predominately follows the existing rail corridor it does pass through numerous settlements and crosses territories with upland relief, so for these reasons we have designated the green route as high risk with regard to planning.

7.4 Environmental Considerations

This initial environmental assessment of the proposed alternative routes has been carried out with the aim of identifying any potential obstacles and limitations that in the following stages of the project development, e.g. environmental impact assessment procedure, may lead to rejection of any selected alternative.

From an environmental point of view the potential impacts from the railway corridor as a linear object have to be considered during both construction and operational phases. The following environmental aspects should be taken into account during the construction phase: biodiversity, noise and exhaust gas emissions from machinery and transport, waste generation (construction waste, excavated polluted soil and ballast, demolition waste), use of natural resources (natural construction material, like sand, stone chippings etc.), impact on hydrological regime and water quality of watercourses, potential accidents and emergency situations. Not all of these aspects will have significant impact on the environment. The operational stage is mostly associated with impact on protected nature territories, landscape and migration corridors for animals, noise emissions, air pollution, potential pollution due to accidents and emergency situations.

Impact on protected nature territories, noise emissions, and impact on water courses have been assessed during this initial assessment as these are the most significant aspects to be taken into account in selection of the most feasible alternative.

This has to be considered only as initial environmental screening, as construction of a new railway line will be subject for full environmental impact assessment. This process normally includes detailed field studies, investigations, modelling of noise impact, potential accidents, analysis of available data, expert assessment etc. The environmental impact assessment has to be carried out in accordance with legal requirements of each country. In average this process takes 1 – 1,5 years.

7.4.1 Effect on Natura 2000 Sites

Natura 2000 sites located within the 2 km corridor, i.e. the area of 1 km to each side from the planned railway line alternatives were selected (Figure 22). In total 78 Natura 2000 sites are located within 2 km corridor. During implementation of an EIA the distance to the protected territories would be defined more precisely. Information on these territories was summarized using Natura 2000 standard data forms (SDF), mainly identifying the type of protection, the area of the site, most significant species and other characterizing indicators (Appendix E).

Impact of the newly constructed routes on nature territories, animal and plant species is expected to be more significant than the impact of the routes which are located in existing railway corridors. Currently the proposed alternatives would pass 34 and would be located close to (i.e. 500 m) 25 Natura 2000 sites. Table 81 shows the relationship of each alternative to the Natura 2000 sites. The most significant impact from the planned route would be on those protected territories that are established mainly for the protection of animals – Birds Directive Sites (SPA) and Birds and habitats directives sites (C) as the animal species are more sensitive to disturbances. If possible the routes should not cross the biotopes or influence their abiotic conditions, the impact on biotopes can be considered as moderate or minor. Detailed analysis is provided in Appendix E.

Table 83 – Number Natura 2000 sites up to 1 km distance from Rail Baltica alternatives

Alternatives	Number of Natura 2000 sites within 1 km corridor			
	Crosses	Distance < 500 m	Distance 0.5 km-1 km	Total
I (Red)	10	16	6	32
II (Orange)	12	16	6	34
III (Yellow)	9	7	9	25
IV (Green)	8	10	10	28

In all cases when significant impact to Natura 2000 territories is expected, there is a rather high probability that compensation measures will have to be foreseen and implemented. Compensation measures may include, but are not limited to, restoration of similar habitat in another site, implementation of additional protection or management measures.

Analysis of Natura 2000 sites carried out during this stage provides information on potential conflict zones, however the exact impact of the route on the protected territories will be assessed within the procedure of environmental impact assessment (EIA). During detailed assessment nature management plans, functional zoning and restrictions of each protected sites as well as species protection plans should be reviewed. At the same stage should be revise nature protected areas with national, regional and local importance, because some of them are not include in list of Natura 2000 sites.

Figure 24 - Sites within 1km either side of the routes



In addition to the impact of the planned railway track on protected nature territories, impact on the ecosystem as a whole or landscape pattern at both – regional and local levels have to be assessed. This type of linear transport infrastructure component would increase landscape fragmentation; therefore preservation of the ecologic corridor functionality has to be considered timely, mainly in relation to large river valley crossings and animal migration corridors. Most significant impact on the landscape is expected in territories, where the railway line will follow the new route. The prospective railway line will mainly affect the ecological value of the landscape with forest dominance and visual aspects of the open landscape with agricultural lands.

The impacts on landscape will be different in construction and operational phase. Mitigation measures should be considered especially in construction phase. Those will depend on species conditions for nesting, migration etc. Transformation of landscape and its elements will be more significant for new (I, III) alternatives than for reconstruction of existing (II, IV) lines. Since the fences will be located in forest areas, the green corridors providing migration possibilities should be planned.

Following the selection of the optimal Rail Baltica railways route an additional assessment has been performed in order to analyse the potential impact on the various environmental aspect including biodiversity. The summary of the information related to the Natura 2000 territories that are traversed by the selected railway route alternative is presented in Table 81 and Figure 22. Although the table covers exclusively the Natura 2000 territories which are crossed by the proposed route, further evaluation will incorporate the assessment of all the territories identified during the preliminary investigation stage and the impact on these territories within the 2 km wide corridor will be included. In addition, impact mitigation measures will be proposed for the future analysis. A comparison of the Natura 2000 territories in all three Baltic State demonstrated that the protected territories were created with a similar, yet somewhat different outlook. For instance, in Estonia many smaller size protected areas can be found, aimed at conservation of just one species – black stork *Ciconia nigra*. Taking into consideration that this species is sensitive to the anthropogenic disturbance, in particular cases it is also necessary to evaluate broader territories, exceeding the regions within the protected areas. Similarly, further investigation will present a detailed analysis of the railway route impact on the species migratory routes, taking into consideration the important role Natura 2000 territories play in the conservation of the various ecosystem functions.

The proposed route of the perspective railway was designed to bypass the Natura 2000 sites. As the result the selected route mainly crosses rivers and river valleys. All the impacted rivers depending on their length and the size of their catchments represent ecological corridors of various importance. When planning a detailed railway route it is important to assess the ecosystem value within each Natura 2000 territories and make the necessary adjustments to the route in order to minimise the potential impact on the protected species and habitats. Such route adjustments would be required around all the rivers that are located within Nature 2000 territories. When crossing the rivers and river valleys the route should primarily utilise the existing bridges; necessary these bridges can be widened. In the case of Natura 2000 sites "Vitrupe ieleja" (LV0530500) and "Sventosios upė žemė Andriūniskio" (LTUKM0002) it is important to assess an option of bypassing the abovementioned territories. In order to minimise the fragmentation of the natural habitats, it is advisable to plan the proposed railway tracks in line with the existing railway tracks and other linear infrastructural objects, as it has been previously done with regards to the development of the route of VIA Baltica transport corridor and other existing roadways in the Baltic States.

Figure 25 - Natura 2000 sites crossed by the Alternative



Table 84 - Natura 2000 sites up to 1 km distance from Rail Baltica alternatives.

Name of site	Site code	Site type	Railway's proximity to site (distance to track)	Area (ha)	Potential impact
Option I					
Taarikõnnu-Kaisma	EE0020340	Birds directive site (SPA)	< 500 m	7519	Significant
Põhja-Liivimaa	EE0040344	Birds directive site (SPA)	< 500 m	19336	Significant
Luitemaa	EE0040351	Birds and habitats directives site (C)	< 1 km	12982	Habitats – minor Birds - moderate
Salavalge-Tõrasoo	EE0020314	Habitats directive site (SCI)	< 500 m	4534	Significant
Rahaaugu	EE0020319	Habitats directive site (SCI)	< 500 m	473	Significant
Raikküla-Paka	EE0020322	Habitats directive site (SCI)	< 500 m	139	Minor
Kuusiku	EE0020336	Habitats directive site (SCI)	< 500 m	121	Moderate
Kaisma	EE0040306	Habitats directive site (SCI)	< 500 m	3170	Moderate
Kivikupitsa	EE0040317	Habitats directive site (SCI)	< 500 m	135	Minor
Laiksaare	EE0040322	Habitats directive site (SCI)	< 500 m	399	Significant
Nepste	EE0040335	Habitats directive site (SCI)	< 500 m	34	Significant
Lemmejõe	EE0040342	Habitats directive site (SCI)	crosses	5	Significant
Pärnu jõe	EE0040345	Habitats directive site (SCI)	crosses	862	Moderate
Pärnu	EE0040347	Habitats directive site (SCI)	< 500 m	519	Moderate
Tolkuse	EE0040359	Habitats directive site (SCI)	<1 km	809	Moderate
Reiu jõe	EE0040384	Habitats directive site (SCI)	crosses	104	Significant
Salacas ieleja	LV0302200	Birds and habitats directives site (C)	crosses	6251	Habitats – significant Birds - significant
Dzelves-Krona purvs	LV0523300	Birds and habitats directives site (C)	< 500 m	1197	Habitats – moderate Birds - significant
Garkalnes meži	LV0527400	Birds and habitats directives site (C)	crosses	1785	Habitats – significant Birds - significant
Vitrupe ieleja	LV0530500	Habitats directive site (SCI)	crosses	126	Significant
Adazi	LV0600800	Birds and habitats directives site (C)	< 500 m	6128	Habitats – moderate Birds - significant
Runeikiu mīskas	LTKED0005	Habitats directive site (SCI)	<1 km	57	Minor
Budos-Pravieniski mīskas	LTKAI0005	Habitats directive site (SCI)	<1 km	1004	Minor
Budos - Pravieniski	LTKAIB006	Birds directive site (SPA)	< 500 m	5174	Moderate

Name of site	Site code	Site type	Railway's proximity to site (distance to track)	Area (ha)	Potential impact
miskai					
Kauno marios	LTKAUB008	Birds directive site (SPA)	< 1 km	5773	Moderate
Kauno marios	LTKAU0007	Habitats directive site (SCI)	< 500 m	9026	Moderate
Naujosios Fredos fortas	LTKAU0011	Habitats directive site (SCI)	< 1 km	30	Minor
Jiesios upe ir jos sleniai	LTKAU0014	Habitats directive site (SCI)	crosses	388	Moderate
Kauno azuolynas	LTKAU0020	Habitats directive site (SCI)	< 500 m	62	Minor
Sventosios upe zemiau Androniskio	LTUKM0002	Habitats directive site (SCI)	crosses	1654	Moderate
Neries upe	LTVIN0009	Habitats directive site (SCI)	crosses	2395	Moderate
Kalvarijos apylinkes	LTKALB001	Birds directive site (SPA)	crosses	19751	Significant
Option II					
Taarikõnnu-Kaisma	EE0020340	Birds directive site (SPA)	< 500 m	7519	Moderate
Kõnnumaa-Väätsa	EE0020341	Birds directive site (SPA)	crosses	17955	Significant
Kikepera	EE0040316	Birds directive site (SPA)	crosses	10402	Significant
Taarikõnnu	EE0020315	Habitats directive site (SCI)	crosses	2857	Significant
Rabivere	EE0020316	Habitats directive site (SCI)	crosses	2169	Significant
Kurtna-Vilivere	EE0020318	Habitats directive site (SCI)	< 500 m	71	Moderate
Ridaküla	EE0020321	Habitats directive site (SCI)	< 500 m	144	Moderate
Kõnnumaa	EE0020325	Habitats directive site (SCI)	crosses	11397	Moderate
Tilniidu	EE0020326	Habitats directive site (SCI)	crosses	346	Significant
Mukri	EE0020327	Habitats directive site (SCI)	< 500 m	2211	Moderate
Nõlvasoo	EE0020337	Habitats directive site (SCI)	< 500 m	1106	Moderate
Allikukivi	EE0040301	Habitats directive site (SCI)	< 500 m	17	Minor
Metsaääre	EE0040302	Habitats directive site (SCI)	< 500 m	160	Minor
Siiraku	EE0040314	Habitats directive site (SCI)	< 500 m	685	Significant
Kuiaru	EE0040320	Habitats directive site (SCI)	< 500 m	222	Moderate
Mõrdama	EE0040331	Habitats directive site (SCI)	< 500 m	1524	Moderate
Pärnu jõe	EE0040345	Habitats directive site (SCI)	crosses	862	Moderate

Name of site	Site code	Site type	Railway's proximity to site (distance to track)	Area (ha)	Potential impact
Pärnu	EE0040347	Habitats directive site (SCI)	< 500 m	519	Minor
Reiu jõe	EE0040384	Habitats directive site (SCI)	crosses	105	Significant
Sanga	EE0040362	Habitats directive site (SCI)	< 500 m	153	Significant
Piejūra	LV0301700	Birds and habitats directives site (C)	crosses	4141	Habitats – significant Birds - significant
Salacas ieleja	LV0302200	Birds and habitats directives site (C)	<500 m	6251	Habitats – moderate Birds - moderate
Vecdaugava	LV0518300	Habitats directive site (SCI)	< 500 m	238	Moderate
Lielupes palienas plavas	LV0523100	Birds and habitats directives site (C)	< 500 m	354	Habitats – minor Birds - moderate
Zuvinto, Zaltycio ir Amalvo pelkes	LTALYB003	Birds directive site (SPA)	<1 km	14196	Moderate
Zuvinto ezeras ir Buktos miskas	LTALY0005	Habitats directive site (SCI)	<1 km	18492	Minor
Kauno marios	LTKAU0007	Habitats directive site (SCI)	< 500 m	9026	Moderate
Jiesios upe ir jos sleniai	LTKAU0014	Habitats directive site (SCI)	crosses	388	Moderate
Kauno azuolynas	LTKAU0020	Habitats directive site (SCI)	< 1 km	62	Minor
Kauno marios	LTKAUB008	Birds directive site (SPA)	< 1 km	5773	Moderate
Naujosios Fredos fortas	LTKAU0011	Habitats directive site (SCI)	<1 km	30	Minor
Azuolu budos miskas	LTMAR0001	Habitats directive site (SCI)	<1 km	859	Minor
Neries upe	LTVIN0009	Habitats directive site (SCI)	crosses	2395	Moderate
Kalvarijos apylinkes	LTKALB001	Birds directive site (SPA)	crosses	19751	Moderate
Option III					
Kõnnumaa-Väätša	EE0020341	Birds directive site (SPA)	< 500 m	17955	Moderate
Kämbla	EE0010103	Habitats directive site (SCI)	< 500 m	165	Moderate
Paunküla	EE0010104	Habitats directive site (SCI)	<1 km	623	Moderate
Ardu	EE0010112	Habitats directive site (SCI)	<1 km	43	Significant
Pärnu jõe	EE0040345	Habitats directive site (SCI)	< 500 m	862	Moderate
Vapramäe	EE0080309	Habitats directive site (SCI)	< 500 m	100	Moderate
Kärevere	EE0080371	Birds and habitats directives site (C)	crosses	2509	Significant

Name of site	Site code	Site type	Railway's proximity to site (distance to track)	Area (ha)	Potential impact
Elva-Vitipalu	EE0080318	Habitats directive site (SCI)	crosses	921	Moderate
Mõneku	EE0080472	Habitats directive site (SCI)	< 500 m	48	Significant
Gaujas nacionālais parks	LV0200100	Birds and habitats directives site (C)	crosses	92286	Habitats – minor Birds - moderate
Linezers	LV0525200	Habitats directive site (SCI)	<1 km	127	Minor
Sedas purvs	LV0526800	Birds and habitats directives site (C)	< 500 m	7261	Habitats – moderate Birds - significant
Garkalnes meži	LV0527400	Birds and habitats directives site (C)	crosses	1785	Habitats – moderate Birds - significant
Ziemeļgauja	LV0600700	Birds and habitats directives site (C)	crosses	21750	Habitats – significant Birds - significant
Runeikiu miskas	LTKED0005	Habitats directive site (SCI)	<1 km	57	Minor
Budos-Pravieniskiū miskas	LTKAI0005	Habitats directive site (SCI)	<1 km	1004	Minor
Budos - Pravieniskiū miskai	LTKAIB006	Birds directive site (SPA)	<1 km	5174	Moderate
Kauno marios	LTKAUB008	Birds directive site (SPA)	<1 km	5773	Moderate
Kauno marios	LTKAU0007	Habitats directive site (SCI)	< 500 m	9026	Moderate
Naujosios Fredos fortas	LTKAU0011	Habitats directive site (SCI)	<1 km	30	Minor
Jiesios upe ir jos sleniai	LTKAU0014	Habitats directive site (SCI)	crosses	388	Moderate
Kauno azuolynas	LTKAU0020	Habitats directive site (SCI)	< 1 km	62	Minor
Sventosios upe zemiau Andrioniskio	LTUKM0002	Habitats directive site (SCI)	crosses	1654	Significant
Neries upe	LTVIN0009	Habitats directive site (SCI)	crosses	2395	Significant
Kalvarijos apylinkes	LTKALB001	Birds directive site (SPA)	crosses	19751	Significant
Option IV					
Ohepalu	EE0020205	Birds and habitats directives site (C)	<1 km	5928	Habitats – minor Birds - significant
Kõrvemaa	EE0060171	Birds directive site (SPA)	<500 m	22888	Moderate
Vooremaa	EE0080171	Birds directive site (SPA)	<1 km	3750	Moderate
Kõrvemaa	EE0060119	Habitats directive site (SCI)	<500 m	20646	Moderate

Name of site	Site code	Site type	Railway's proximity to site (distance to track)	Area (ha)	Potential impact
Seljamāe	EE0060211	Habitats directive site (SCI)	<500 m	215	Moderate
Āntu	EE0060212	Habitats directive site (SCI)	<500 m	391	Minor
Mustalika	EE0080109	Habitats directive site (SCI)	<500 m	50	Moderate
Vooremaa järvede	EE0080110	Habitats directive site (SCI)	<1 km	2109	Minor
Vapramāe	EE0080309	Habitats directive site (SCI)	< 500 m	100	Moderate
Elva-Vitipalu	EE0080318	Habitats directive site (SCI)	crosses	926	Moderate
Mõneku	EE0080472	Habitats directive site (SCI)	< 500 m	48	Significant
Gaujas nacionālais parks	LV0200100	Birds and habitats directives site (C)	crosses	92286	Habitats – significant Birds - significant
Melturu sils	LV0527800	Habitats directive site (SCI)	crosses	288	Significant
Lielupes palienas plavas	LV0523100	Birds and habitats directives site (C)	< 500 m	354	Habitats – minor Birds - moderate
Jaunciems	LV0524600	Habitats directive site (SCI)	<1 km	351	Minor
Sedas purvs	LV0526800	Birds and habitats directives site (C)	< 500 m	7261	Habitats – moderate Birds - significant
Garkalnes meži	LV0527400	Birds and habitats directives site (C)	crosses	1785	Habitats – moderate Birds - significant
Ziemeļgauja	LV0600700	Birds and habitats directives site (C)	crosses	21750	Habitats – significant Birds - significant
Zuvinto, Zaltycio ir Amalvo pelkes	LTALYB003	Birds directive site (SPA)	<1 km	14196	Moderate
Zuvinto ezeras ir Buktos miskas	LTALY0005	Habitats directive site (SCI)	<1 km	18492	Minor
Kauno marios	LTKAU0007	Habitats directive site (SCI)	< 500 m	9026	Moderate
Jiesios upe ir jos sleniai	LTKAU0014	Habitats directive site (SCI)	crosses	388	Moderate
Kauno azuolynas	LTKAU0020	Habitats directive site (SCI)	< 1 km	62	Minor
Kauno marios	LTKAUB008	Birds directive site (SPA)	< 1 km	5773	Moderate
Naujosios Fredos fortas	LTKAU0011	Habitats directive site (SCI)	<1 km	30	Minor
Azuolu budos miskas	LTMAR0001	Habitats directive site (SCI)	<1 km	859	Minor
Neries upe	LTVIN0009	Habitats directive site (SCI)	crosses	2395	Significant
Kalvarijos apylinkes	LTKALB001	Birds directive site (SPA)	crosses	19751	Moderate

Table 85 - Description of the Natura 2000 sites crossed by the Alternative I

Name of site	Site code	Area, ha	Site type	Annex 1, habitat types	Annex 1, Territory covered by habitat, %	Birds listed on Annex I of Council directive 79/409/EEC		Listed on Annex II of Council directive 92/43/EEC					Comment
						Birds, Annex 1	Regularly occurring Migratory Birds	Mammals	Amphibians	Fishes	Invertebrates	Plants	
Lemmejõe	EE0040342	5	Habitats directive site (SCI)	3260	100	No data	No data	<i>Lutra lutra</i>	No data	<i>Lampetra fluviatilis</i>	<i>Unio crassus</i>	No data	Crossing the river
Pärnu jõe	EE0040345	862	Habitats directive site (SCI)	3260, 6450, 6530	100	No data	No data	No data	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i> , <i>Salmo salar</i>	<i>Unio crassus</i>	No data	Crossing the river
Reiu jõe	EE0040384	104	Habitats directive site (SCI)	3260	100	No data	No data	No data	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i>	<i>Unio crassus</i>	No data	Crossing the river

Salacas ieleja	LV0302200	6251	Birds and habitats directives site (C)	9180, 91D0, 8310, 8220, 7160, 7110, 6430, 6210, 3260, 91E0, 6510, 6270, 6450, 6230, 7150, 7220	24.5	See Note 1	No data	<i>Lutra lutra</i> , <i>Myotis dasycnem e</i> , <i>Ursus arctos</i>	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i> , <i>Salmo salar</i> , <i>Rhodeus sericeus amarus</i> , <i>Pelecus cultratus</i> , <i>Misgurnus fossilis</i> , <i>Lampetra planeri</i>	<i>Leucorrhinia pectoralis</i> , <i>Ophiogomphu s cecilia</i> , <i>Osmoderma eremita</i> , <i>Unio crassus</i> , <i>Vertigo angustior</i> , <i>Vertigo geyeri</i>	<i>Agrimoni a pilosa</i> , <i>Dicranu m viride</i>	Crossing the river
Garkalnes mezi	LV0527400	1785	Birds and habitats directives site (C)	9010, 4030	8.5	See Note 2	No data	No data	No data	No data	<i>Ophiogomphu s cecilia</i>	<i>Pulsatilla patens</i>	Crossing forest area
Vitrupe ieleja	LV0530500	126	Habitats directive site (SCI)	9180, 91F0, 9010, 8220, 3260, 6270, 6450	45.5	See Note 3	No data	<i>Lutra lutra</i>	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i> , <i>Lampetra planeri</i> , <i>Salmo salar</i>	<i>Lycaena dispar</i> , <i>Unio crassus</i> , <i>Vertigo genesii</i>	No data	Crossing the river
Jiesios upe ir jos sleniai	LTKAU0014	388	Habitats directive site (SCI)	9180	11	No data	No data	<i>Lutra lutra</i>	No data	No data	<i>Cucujus cinnaberinus</i>	No data	Crossing the river
Sventosios upe zemiau Andrioniskio	LTUKM0002	1654	Habitats directive site (SCI)	No data	No data	No data	No data	<i>Lutra lutra</i>	No data	<i>Cobitis taenia</i> , <i>Lampetra fluviatilis</i> , <i>Rhodeus sericeus amarus</i> , <i>Sabanejewi a aurata</i> , <i>Salmo salar</i>	<i>Ophiogomphu s cecilia</i>	No data	Crossing the river

Neries upė	LTVIN0009	2395	Habitats directive site (SCI)	3260	11	No data	No data	Lutra lutra	No data	<i>Aspius aspius</i> , <i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i> , <i>Rhodeus sericeus amarus</i> , <i>Salmo salar</i>	Ophiogomphus cecilia	No data	Crossing the river
Kalvarijos apylinkės	LTKALB001	19751	Birds directive site (SPA)	6210, 6430, 6450, 6510	No data	See Note 4	No data	No data	No data	No data	No data	No data	Crossing agricultural and forest areas

Data source: Natura 2000 standard data form (<http://natura2000.eea.europa.eu>)

Habitat
Code

Habitat description

- 3260 Water courses of plain to mountain levels with the *Ranunculus fluitantis* and Callitriche-Batrachion vegetation
- 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)
- 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas in Continental Europe)
- 6270 Fennoscandian lowland species-rich dry to mesic grasslands
- 6430 Hydrophilous tall herb fringe communities of plains and of the mountain to alpine levels
- 6450 Northern boreal alluvial meadows
- 6450 Northern boreal alluvial meadows
- 6510 Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)
- 6530 Fennoscandian wooded meadows
- 7110 Active raised bogs
- 7150 Depressions on peat substrates of the Rhynchosporion
- 7160 Fennoscandian mineral-rich springs and springfens
- 7220 Petrifying springs with tufa formation (Cratoneurion)
- 8220 Siliceous rocky slopes with chasmophytic vegetation
- 8310 Caves not open to the public
- 9180 Tilio-Acerion forests of slopes, screes and ravines
- 4030 European dry heaths
- 9010 Western Taiga
- 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)
- Riparian mixed forests of *Quercus robur*, *Ulmus laevis* and *Ulmus minor*, *Fraxinus excelsior* or *Fraxinus angustifolia*, along the great rivers (*Ulmion minoris*)

Note 1: *Alcedo atthis*, *Bonasa bonasia*, *Ciconia ciconia*, *Ciconia nigra*, *Crex crex*, *Dendrocopos leucotos*, *Dendrocopos medius*, *Dryocopus martius*, *Ficedula parva*, *Glaucidium passerinum*, *Lullula arborea*, *Lanius collurio*, *Pandion haliaetus*, *Picoides tridactylus*, *Picus canus*, *Strix uralensis*, *Tetrao urogallus*

Note 2: *Aegolius funereus*, *Anthus campestris*, *Caprimulgus europaeus*, *Ciconia nigra*, *Coracias garrulus*, *Crex crex*, *Dryocopus martius*, *Lanius collurio*, *Lullula arborea*, *Pernis apivorus*, *Picus canus*

Note 3: *Alcedo atthis*, *Bonasa bonasia*, *Caprimulgus europaeus*, *Crex crex*, *Dendrocopos leucotos*, *Dendrocopos medius*, *Dryocopus martius*, *Glaucidium passerinum*, *Lanius collurio*, *Lullula arborea*, *Picoides tridactylus*, *Strix uralensis*

Note 4: *Alcedo atthis*, *Anthus campestris*, *Asio flammeus*, *Botaurus stellaris*, *Caprimulgus europaeus*, *Chlidonias niger*, *Ciconia ciconia*, *Circus aeruginosus*, *Circus pygargus*, *Crex crex*, *Grus grus*, *Lullula arborea*, *Pernis apivorus*, *Picus canus*, *Porzana parva*, *Porzana porzana*, *Sterna hirundo*

7.4.2 Noise impact

Both construction phase and operational phase of railway line will be associated with noise emissions from machinery and vehicles used during construction and railway traffic during operation of *Rail Baltica*.

During the construction impact will be short term and, as it is linear object, noise emission source will be mobile. However operation of railway line will be associated with permanent noise emissions. It is obvious that noise emission modelling has to be done during the environmental impact assessment, but based on expert experience and available information it should be noted that there is high risk to exceed noise limit values in populated areas. Potential risk zones have been identified for each option and summarised in the following table:

Alternatives	Number of populated areas (cities/town) crossed			Total
	<i>LT</i>	<i>LV</i>	<i>EE</i>	
I (Red)	17	5	7	29
II (Orange)	16	13	15	44
III (Yellow)	17	5	6	28
IV (Green)	16	13	17	46

In all route options the detailed effects of noise will have to be considered and the necessary mitigation measures planned. Options I and II are crossing considerably less cities/towns with potential conflict zones requiring planning and implementation of noise reduction/mitigation measures.

Option I Red

The alternative is passing nearby or through the following populated areas where is a potential risk to exceed noise limit values:

- Lithuania: Luidvinavas, Patasine, Raišupys, Smilgiai, Barsukine, Leskava, Joudbudis, Daniunai, Rukai, Baisogula, Velzys, Pajuostis, Pavartycai, Pasvalyis, Preiciunai, Staciunai, Mekiai,
- Latvia: Jauneikas, Code, Iecava, Skulte, Jelgavkrasti,
- Estonia: Voidu, Parnu, Mahlamae, Salutaguse, Prillimae, Luige, Tallinn.

Option II Orange

The alternative is passing nearby or through the following populated areas where is a potential risk to exceed noise limit values:

- Lithuania: Sestokai, Jungenai, Marijampole, Garliava, Kaunas, Neveronys, Kozlu Ruda, Mauruciai, Jonova, Kedainia, Baisogala, Radviliskis, Kutiskiai, Silenai, Siaulai, Mekiai.
- Latvia: Eleja, Jelgava, Ozolnieki, Jaunolaine, Tiraine, Riga, Garkalne, Garciems, Carnikava, Saulkrasti, Skulte, Limbazi, Valka
- Estonia: Moisakula, Saarde, Jaamakula, Selja, Eidapere, Lelle, Keava, Valtu, Rapla, Hagudi, Kohila, Kiisa, Saku, Manniku, Tallinn.

Option III Yellow

The alternative is passing nearby or through the following populated areas where is a potential risk to exceed noise limit values:

- Lithuania: Luidvinavas, Patasine, Raišupys, Smilgiai, Barsukine, Leskava, Joudbudis, Daniunai, Rukai, Baisogula, Velzys, Pajuostis, Pavartycai, Pasvalyis, Preiciunai, Staciunai, Mekiai.
- Latvia: Jauneikas, Code, Iecava, Valmiera, Valka
- Estonia: Valga, Tsirgullina, Elva, Voika, Tartu, Tallinn.

Option IV Green

The alternative is passing nearby or through the following populated areas where is a potential risk to exceed noise limit values:

- Lithuania: Sestokai, Jungenai, Marijampole, Garliava, Kaunas, Neveronys, Kozlu Ruda, Mauruciai, Jonova, Kedainia, Baisogala, Radviliskis, Kutiskiai, Silenai, Siaulai, Mekiai.
- Latvia: Eleja, Jelgava, Ozolnieki, Jaunolaine, Tiraine, Riga, Garkalne, Sigulda, Ligatne, Cesis, Liepa, Valmiera, Valka
- Estonia: Valga, Tsirgullina, Elva, Voika, Tartu, Karkna, Tabivere, Jogeve, Rakke, Tamsalu, Vahakulmu, Tapa, Lehtse, Aegviidu, Kehra, Raasiku, Tallinn.

7.4.3 Impact on rivers and water courses

All alternative routes are crossing large numbers of small rivers, whose hydrological regime will be affected during the construction stage, but impact will be predominantly in the short-term and minor.

All alternative routes also cross large and medium size rivers. In all cases when a new crossing/bridge is located next to the existing one or the existing crossing/bridge is widened it is considered that the impact on the hydrological regime will be moderate. However in cases when the route requires the construction of a new bridge the impact is considered as being significant. More details of the watercourses affected by each option are given below:

Option I Red

The route is passing several rivers and watercourses that hydrological regime may be influenced during the construction stage:

- Lithuania:
 - the route is crossing Baisogalos small hydro power station water reservoir (located on Kirsinas river near Baisogala town),
 - large/medium rivers with major impact: Nemunas (near Kaunas and Raudondvaris), Kaunas water reservoir on Nemunas River (Kauno Mario), Neris (near Jonava), Musa (near Pasvalys and Pakruojis)
- Latvia:
 - large/medium rivers with significant impact: Memele, Riga hydro power station water reservoir on Daugava River, Gauja, Salaca
- Estonia:
 - large/medium rivers with moderate impact: Parnu.

Option II Orange

The route is passing several rivers and watercourses that hydrological regime may be influenced during the construction stage:

- Lithuania:
 - large/medium rivers with moderate impact: Nemunas (near Kaunas and Raudondvaris), Kaunas water reservoir on Nemunas River (Kauno Mario), Neris (near Jonava), Nievezis (near Kedainiai). As there already exist railway bridges and construction of new bridges or widening of existing ones will have less environmental impact.
- Latvia:
 - large/medium rivers with moderate impact: Lielupe, Daugava, channel between Juglas Lake and Baltezers Lake, Milgravis Channel, Gauja,
- Estonia:
 - large/medium rivers with significant impact: Parnu.

Option III Yellow

The route is passing several rivers and watercourses that hydrological regime may be influenced during the construction stage:

- Lithuania:
 - the route is crossing Baisogalos small hydro power station water reservoir (located on Kirsinas river near Baisogala town),

- large/medium rivers with major impact: Nemunas (near Kaunas and Raudondvaris), Kaunas water reservoir on Nemunas River (Kauno Mario), Neris (near Jonava), Musa (near Pasvalys and Pakruojis)
- Latvia:
 - large/medium rivers with moderate impact: Memele, Riga hydro power station water reservoir on Daugava River, Gauja
- Estonia:
 - large/medium rivers with moderate impact: Vaike Emajogi
 - large/medium rivers with significant impact: Emajogi

Option IV Green

The route is passing several rivers and watercourses that hydrological regime may be influenced during the construction stage:

- Lithuania:
 - large/medium rivers with moderate impact: Nemunas (near Kaunas and Raudondvaris), Kaunas water reservoir on Nemunas River (Kauno Mario), Neris (near Jonava), Nievezis (near Kedainiai). As there already exist railway bridges and construction of new bridges or widening of existing ones will have less environmental impact.
- Latvia:
 - large/medium rivers with moderate impact: Lielupe, Daugava, channel between Juglas Lake and Baltezers Lake, Gauja.
- Estonia:
 - large/medium rivers with moderate impact: Vaike Emajogi, Emajogi.

7.4.4 Impact on cultural heritage

The Baltic States have a long history and there are designated a large number of cultural heritage sites of national and local importance. Approx. number is around 8000 cultural heritage sites in each country. Therefore only rough estimate of number of sites in major cities has been done and detailed assessment has to be done for the alternative selected for the further assessment. The information is summarised in the following table.

Number of heritage sites in the major cities

City	Number of heritage sites	Alternative concerned
Kaunas	943	All alternatives
Panevezys	179	Alternative I and III
Siaulai	112	Alternative II and IV
Riga	531	Alternative II and IV
Valmiera	14	Alternative III and IV
Tartu	295	Alternative III and IV
Parnu	78	Alternative I and II

Considering number of the heritage sites the most acceptable is alternative I, because crossing Parnu that has significantly less sites than Tartu and not crossing Riga. The alternative with lower priority is the alternative IV, because crossing Riga and Tartu.

In total each alternative may concern the following number of the heritage sites:

- Alternative I – 1 200 heritage sites;
- Alternative II – 1 664 heritage sites;
- Alternative III – 1 252 heritage sites;
- Alternative IV – 1 895 heritage sites.

7.4.5 Land cover of perspective corridor

In order to characterize the land-use type within the 2 km-wide corridor chosen for the Alternative I railway track route, the land use types were analysed based on the classification provided by the Corine Land Cover (CLC) database (www.eea.europa.eu/data-and-maps/data/). This database was created by the European Topic Centre for Land Use and Spatial Data Information and is widely used by the European Environmental Agencies of the EU member states when analysing land cover, land-use change, land-use planning etc. Corine Land Cover database provides land cover data for the territory of all the European States produced using the uniform methodology with the 100 m-precision and represents the land cover for the year 2006. Within the route corridor of the perspective railway track 24 land cover classes can be identified out of the total 44 recognised by Corine in Europe. Table 84 summarises the identified land cover types by the total area and number of plots with the specific land cover found within the proposed railway route corridor.

The total area size of the perspective railway track route 2 km wide corridor is 132 460 ha. Agricultural land is the prevailing land cover within the corridor, covering 48% of the total corridor area and is mainly found in the southern parts of Latvia and Lithuania. Arable land constitutes approximately half of the agricultural land. The remaining half is characterised by a complex cultivation patterns with pastures and land principally occupied by agriculture with significant areas of natural vegetation. This type of a complex agricultural land use is more common for Estonia and northern Latvia where territory is characterised by a highly heterogenic mosaic pattern of the land cover.

The second most common land use type is forests which covers up to 37% of the total proposed corridor area and can be mainly found in Estonia and northern Latvia. The major part of the forest area is covered by mixed and coniferous forests, with the small regions of broad-leaved forests. Semi-natural and artificial surfaces cover 7% and 6% of the total corridor area respectively. The major part of the semi-natural area is occupied by the scrubs, which in the Baltic States often appear on the abandoned agricultural land. Taking into consideration that the proposed railway route deliberately bypasses urban areas, the proportion of this land cover type within the corridor is small. Mainly urban areas overpass territories adjacent to the planned railway stations (Tallin, Parnu, Riga, Panevezys, Kaunas). Within the broad class of urban land cover, the major types are discontinuous urban fabric, industrial or commercial units, green urban areas and road and rail networks and associated land. Here, it is important to note that the proposed railway route within the urban areas will go through the territories which are currently used as the railway corridors; therefore there will be no significant change in the land use within the urban areas. Finally, the insignificant proportion (approx. 1%) of the total perspective railway corridor area is covered by wetlands and water bodies.

Table 86 demonstrates that the perspective railway route will trespass territories with various land cover types. Agricultural land and forests cover major area within the proposed railway corridor, and therefore in the next stages of the project development it is necessary to consider measure that will minimise the impact of the land cover fragmentation throughout the perspective route and insure the availability of the optimal land plots. Figures 24-28 clearly demonstrates land cover types in the territories crossed by the perspective railway route. The perspective railway route mainly crosses forest land and semi natural areas from Tallinn till Iecava. Agricultural areas are mainly concentrated in the section from Iecava till Jonava.

Table 86 - The distribution of CLC classes in 2 km corridor of the Alternative I

CLC code	CLC class	Area of Rail Baltica			Total area of EE, LT and LV, ha	% from total area of EE, LT and LV
		ha	%	count		
	Artificial surfaces	8270	6,2		396045	2,1
	<i>Urban fabric</i>					
111	Continuous urban fabric	112		3		
112	Discontinuous urban fabric	3838		61		

	<i>Industrial, commercial and transport units</i>					
121	Industrial or commercial units	2692		39		
122	Road and rail networks and associated land	456		9		
124	Airports	143		1		
	<i>Mine, dump and construction sites</i>					
131	Mineral extraction sites	300		6		
133	Construction sites	30		3		
	<i>Artificial, non-agricultural vegetated areas</i>					
141	Green urban areas	493		11		
142	Sport and leisure facilities	206		4		
	Agricultural areas	63288	47,8		8287221	0,8
	<i>Arable land</i>					
211	Non-irrigated arable land	36164		167		
222	Permanently irrigated land	482		7		
	<i>Pastures</i>					
231	Pastures	5605		100		
	<i>Heterogeneous agricultural areas</i>					
242	Complex cultivation patterns	13461		168		
243	Land principally occupied by agriculture, with significant areas of natural vegetation	7576		169		
	Forest and semi natural areas	58432	44,1		7935989	0,7
	<i>Forests</i>					
311	Broad-leaved forest	11088		177		
312	Coniferous forest	18400		188		
313	Mixed forest	19877		260		
	<i>Scrub and/or herbaceous vegetation associations</i>					
321	Natural grasslands	84		2		
322	Moors and heathland	66		1		
324	Transitional woodland-shrub	8917		183		
	Wetlands	1421	1,1		417133	0,3
	<i>Inland wetlands</i>					
411	Inland marshes	149		6		
412	Peat bogs	1272		8		
	Water bodies	1048	0,8		501953	0,2
	<i>Inland waters</i>					
511	Water courses	608		6		
512	Water bodies	440		9		
	Total:	132460	100		17538341	0,8

7.4.6 Geological conditions

Geological conditions are important factor for engineering and construction of railway line as have direct impact on selected ballast, construction technology etc. The key task during this stage was to identify areas where geological conditions are difficult and where particular attention has to be paid during next stages of the project development. As difficult conditions are considered gypsum bedrock where is very high risk to develop karst processes.

There has not been identified any area with particularly difficult geological conditions in Estonia. Latvia – potential risk zones are in Stopini novads, Salaspils novads and Baldones novads. Lithuania – the Alternative I is not crossing areas with difficult geological condition. Areas with gypsum bedrock are located to the East from the selected railway corridor.

7.5 Technical Analysis Summary

The results of the various analyses undertaken in the preceding sections have been summarised in the table below. In some case values have been used but where this has not been possible the options have either been assigned a ranking from 1-4 or an impact classified as high, medium or low. The values have been based on the 2020 year values and the medium or central cases.

The detailed analysis table on the following page can be simplified as shown below:

Aspect	Best Route
Capital Cost	Red
Journey time savings	Red
Revenues	Red
Wider Economic Benefits	Red and Yellow equal
Environment	Red , in terms of CO ₂ savings

Therefore, considering the wider economic benefits of each of the options it is important to note that both Parnu and Panevezys will experience significant benefits to their business climate and economic growth based on increased accessibility for passenger and freight service to and from these locations in the North-South direction. Each location will require capital investments in station infrastructure which have been taken into consideration, but the benefits should quickly outweigh the investment costs.

The Red option, Alternative 1 appears to be the route that offers the greatest benefits for the least capital cost.

Government		Comment		Red	Orange	Yellow	Green
		(incl estimate of land cost)		€4.88bn	€5.08bn	€5.51bn	€5.30bn
		Annual Passenger Hours ('000)		1,939	872	1,996	983
		Passenger €000		€14,153	€6,365	€14,573	€7,173
		Freight €000		€37,000	€25,000	€25,000	€18,000
	Wider Economic Benefits Ranked as 1=best, 4 =worst	Labour mobility	Rail Baltica project will increase workplace accessibility and will expand labour market catchment areas.	2	4	3	1
		Efficiency gains and improved distribution	Rail Baltica project will deliver time, cost, frequency, quality and reliability savings to freight carriers and passengers.	3	4	2	1
		Business and economy	Rail Baltica can facilitate impact on business efficiency and the economy through productivity improvement, agglomeration benefits and the narrowing of the international production gap.	1	3	2	4
		Land development and investment	Rail Baltica project will offer major development opportunities that will present themselves either in the city centres particularly around Rail Baltica stations or in the outskirts of big cities.	4	2	3	1

		Accessibility	Tourism can become a crucial area for the cities and regions provided with railway. The accessibility of a city is highly crucial for foreigners	1	4	2	3
		Multimodal corridors	Connectivity with other transport hubs (airports, harbours, roads) increases value of the rail, as well as it helps faster integration of the Rail Baltica in the current transport infrastructure...	2	3	1	4
Operator of Rail Baltica							
	Revenues	annual					
	Passenger	€000		41,392	23,893	46,010	30,487
	Freight	€000		132,000	106,000	107,000	88,000
Operators of Competing Modes							
AIR	Passenger	Trips Diverted per annum ('000) Annual Lost Revenue €000		-258 -47560	-184 -34768	-238 -51216	-167 -28580
	Freight	Trips Diverted per annum ('000) Annual Lost Revenue €000		TBC -613	TBC -401	TBC -740	TBC -491
COACH	Passenger	Trips Diverted per annum ('000) Annual Lost Revenue €000		-8281 TBC	-5552 TBC	-11680 TBC	-6189 TBC
	Freight	Trips Diverted per annum ('000) Annual Lost Revenue €000		-21 -245	-89 -1064	-108 -1479	-135 -1471
RAIL	Passenger	Trips Diverted per annum ('000) Annual Lost Revenue €000					

	Freight			TBC	TBC	TBC	TBC
Environment	Noise		Number of populated sites crossed	MEDIUM-will cross 29 populated areas with rather high potential to have a conflict zones where are exceeded noise emission limit values	HIGH - will cross 44 populated area with rather high potential to have a conflict zones where are exceeded noise emission limit values	MEDIUM-will cross 28 populated areas with rather high potential to have a conflict zones where are exceeded noise emission limit values	HIGH - will cross 46 populated area with rather high potential to have a conflict zones where are exceeded noise emission limit values
	Air Quality	CO ₂ Saved tonnes Freight		374000	264000	268000	200000
	Greenhouse Gas Emissions	CO ₂ E Saved tonnes Freight		380000	269000	273000	204000
	Landscape/Town scape			HIGH-will cause significant landscape transformation in regional and local scale, will cross areas with valuable landscapes	MEDIUM/LOW-Enlarging of existing railway corridor in several sections with typical landscapes	HIGH/MEDIUM-will cause significant landscape transformation in regional and local scale, will cross several areas with valuable landscapes	MEDIUM-Enlarging of existing railway corridor in several sections with valuable landscapes
	Bio-diversity			HIGH/MEDIUM-will cross or goes close (till 500 m) to 25 Natura 2000 sites as new alignment	HIGH/MEDIUM-will cross or goes close (till 500 m) to 27 Natura 2000 sites using existing corridor	MEDIUM-will cross or goes close (till 500 m) to 14 Natura 2000 sites mostly using existing corridor	MEDIUM/LOW-will cross or goes close (till 500 m) to 17 Natura 2000 sites using existing corridor
	Heritage		Number of heritage sites located in the major cities	LOW - potentially will have lower possibility for conflict with cultural heritage sites, because crosses the major cities with the less number of such sites (1200 sites)	HIGH/MEDIUM - potentially will have rather high possibility for conflict with cultural heritage sites, because crosses the major cities with 1664 sites	LOW/MEDIUM - potentially will have moderate possibility for conflict with cultural heritage sites, because crosses the major cities with 1252 sites	HIGH - potentially will have the highest possibility for conflict with cultural heritage sites, because crosses the major cities with the highest number of such sites (1895 sites)
	Water environment		Existing or new crossings	HIGH-potentially will have a significant impact on water environment during building new crossings	LOW/MEDIUM-will cross water bodies in places where bridges are already located and water environment is already affected.	HIGH/MEDIUM-potentially will have rather high impact on water environment during building new crossings	LOW/MEDIUM-will cross water bodies in places where bridges are already located and water environment is already affected.

*Note: Detailed Capital Cost Calculations are presented in Appendix F

8 Best Feasible Option

8.1 Introduction

In the preceding sections of this report investigations were undertaken to identify the most likely feasible option for the new standard European gauge Rail Baltica. Following analysis of the factors summarized in Section 7.5 Technical analysis summary, it was proposed that Option 1, the Red Route should be the subject of a more detailed economic analysis. This proposal was accepted by the Rail Baltica Steering Committee at their meeting on 17 March 2011.

The preferred alignment (Option 1 – Red Route) for the Core TEN-T Rail Baltic 1435mm route was selected and designed to offer the most direct and shortest route from the southern-most point to the northern most point of the corridor. The new 1435mm gauge line starts at the LT border and proceeds into Kaunas on a new alignment to minimize curves and speed restrictions. At Kaunas the route will not serve the Central Station directly but will use Palemonas station as the transfer connection to the existing 1520mm gauge line to link to the Central Station and a transfer location for shuttle service to the airport via bus or 1520 mm rail. The new proposed intermodal facility is also in this area and can also be easily served by this route. The line progresses northbound through the west-side of Panevezys, where a stop for passengers and freight is planned, and continues north into Latvia. In Latvia the alignment proceeds adjacent to Iecava and then crosses the Daugava River to the east of Riga, at Salaspils at which point an east-west intermodal transfer station is contemplated. Riga City is served by new 1435mm gauge rail infrastructure utilizing the old "Ergli" alignment through to the Central Station. Trains from Central Station use the same route to arrive back at the main north south section. From this connection point the line proceeds northbound following parallel to the Via Baltica roadway alignment to Parnu, another intermediate stop and subsequently to Tallinn Central Station stopping first at Tallinn Airport. In the vicinity of Tallinn spurs are provided from the main line to serve both Muuga Port and the proposed location of the proposed fixed crossing to Helsinki.

The key features of the route are:

- Overall length of new track 728km
- Design speed 240 kph maximum
- The route is a mixed traffic conventional route
- Journey times between Tallinn and the Lithuanian/Polish Border (Table 1.1)
 - Passenger 4.13 hrs (4h8m)
 - Freight 10.38 hrs (10h29m) (variable time depending on the number of calls)
- Average speeds
 - Passenger 170 kph
 - Freight 68 kph
- Passenger service frequency every 2 hrs starting at 06.00 and finishing at 24.00hrs approximately
- New/Upgraded passenger stations at Palemonas, Panevezys, Riga Central Station, Parnu, Tallinn Airport and Tallinn Central Station.
- Connection from Palemonas Station to Kaunas Central Station and Vilnius Central Station is proposed using the existing 1520 mm gauge line and connection to the Kaunas International Airport using express coach shuttle or a new 1520 mm extension from Palemonas to the Airport.
- Primary intermodal terminals at Tallinn, Riga and Kaunas and secondary intermodal terminals at Panevezys and Parnu.
- Maintenance facilities at Rapla, Riga, and Jonava.
- The route is twin track for its entire length on mainly new alignment
- Some dual gauge (1520/1435) sections are required.

Note: High speed rail passenger service was not considered due to timetabling conflicts within a mixed train service network unjustifiable with HSR infrastructure high initial capital costs associated.

In considering and evaluation the best feasible option, it was determined to list various alternatives that could be considered during later stages of the project development. Three solutions were identified along the corridor that would merit further study and analysis:

- 1) Suboption 1: Tallin – Rapla (See Figure 26) via the existing alignment. This Sub-option should be considered if N-S Service along the existing 1520 mm gauge route is significantly reduced.

- 2) Suboption 2 – Surju – Skulte via Limbazi (See Figure 26, 27) this Sub-option should be considered if land expropriation becomes problematic along the newly proposed alignment, the segment between Limbazi and Skulte is already reserved for Rail Baltic according to territorial plans.
- 3) Suboption 3 – Marijampole – LT/Polish Border (See Figure 28). This Sub-option should be considered, since this segment and its upgrades to 1435 mm gauge is already under construction. Although, it has been determined by AECOM that the use of this updated infrastructure will not meet the current TSI's for this project.

In addition two additional location specific options must be considered in close coordination with the local municipalities in Riga and Kaunas.

- 1) City of Riga – Central Station link to Riga International Airport via existing 1520 mm gauge upgrade (shuttle express rail service) or via extension of city of Riga public transportation tram network.
- 2) City of Kaunas – Palemonas link to Kaunas Central station via existing 1520 mm gauge upgrade (express rail shuttle service) or via dual gauge upgrade through existing tunnel to connect new 1435 mm gauge service directly to Kaunas central station.

Figure 26 - The Preferred Alternative



Figure 27 – Best Feasible Option – Red Route



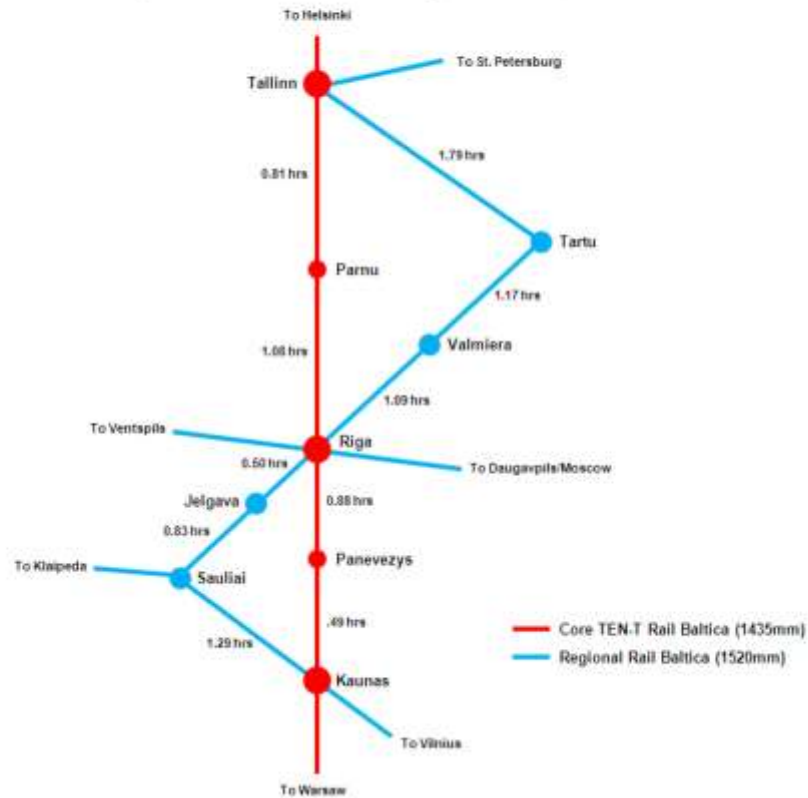
Figure 28 - Journey Times – Preferred Option – Red Route

Section code	Cross-section type	Length, km	Passenger Design speed limits	Passenger Journey Times	Freight Design speed limits	Freight Journey Times
A	1,2	10,6				
B	2	10,1			60	0,17
C	2	5,8			60	0,10
Tallinn				0,08		
E (1)	2,3	6,9	80	0,09		
TLL				0,05		
E (2)	2,3	8,7	80	0,11		
D	1	2,4	80	0,03	60	0,04
F	1	10,9	160	0,07	100	0,11
G	1	27,5	240	0,11	120	0,23
H	1	83,6	240	0,35	120	0,70
Parnu				0,05		
I	2	4,0	80	0,05	80	0,05
J	1	58,3	240	0,24	120	0,49
K	1	61,1	240	0,25	120	0,51
L	1	30,8	240	0,13	120	0,26
M	1	5,2	240	0,02	120	0,04
N	1	15,4	240	0,06	120	0,13
O (in)	1,3	25,4	80	0,32	80	0,32
Riga				0,08		2,00
O (out)	1,3	25,4	80	0,32	80	0,32
P	1	71,7	240	0,30	120	0,60
Q (1)	1	62,5	240	0,26	120	0,52
Panevezys				0,05		
Q (2)	1	80,7	240	0,34	120	0,67
R	1	23,9	160	0,15	120	0,20
Kaunas				0,08		2,00
S	2	15,4	80	0,19	60	0,26
T	1	61,8	240	0,26	120	0,52
U	1	10,9	240	0,05	120	0,09
V	1	7,6	200	0,04	120	0,06
W	2	1,1	160	0,01	100	0,01
TOTAL:		727,7	170	4,13	68	10,38

Note: Section codes are included in the reference drawings included in Appendix G

Journey times will differ between the Rail Baltica Core TEN-T 1435mm route and the regional 1520mm rail network. The regional rail network journey times as were considered in the future Business as Usual case scenario (at max speeds of at least 120 kmh without any restrictions) are roughly similar to travel times via the road network. The current passenger rail network is considerably slower (i.e. journey time from Riga to Valmiera is currently 2 hours 20 minutes). Other key urban centers in the Baltic States that are not directly on the 1435mm gauge line that have been considered for connection to the Rail Baltica line are Tartu, Daugavpils, Ventspils, Jelgava, Liepaja, Sauliai, Klaipeda and Vilnius.

Figure 29 – Journey Times (core vs. regional network) and Connectivity (Destinations)



8.2 Compliance with Existing Spatial Plans

The selected alternative (Option 1 – The Red Route) is defined in the national plans and strategies of Latvia and Estonia, but with different priority levels. A railway corridor around the Riga agglomeration is foreseen in both the regional and local level planning documents. In Lithuania the alternative is defined just from Kaunas to the Lithuania/Polish border in the Long-term Strategy (until 2025) of the Lithuanian Transport System Development Plan. The same section of the route is also defined in the Lithuanian regional spatial planning documents. From a planning perspective therefore it is important that in the near future the selected preferred route is defined in the regional level spatial plans and development strategies for following administrative levels – Harju, Rapla, Pärnu counties in Estonia, Riga and Zemgale planning regions in Latvia, and Panevezys and Kaunas districts in Lithuania. In total, the route crosses 16 local municipalities, Tallinn and Pärnu cities and Rapla town in Estonia, 13 local municipalities, Riga city, Saulkrasti, Salaspils and Bauska towns in Latvia, and 8 local municipalities, Kaunas city, Panevezys and Marijampoles towns in Lithuania.

Table 87 - Municipalities impacted by Rail Baltica

Lithuania:	Latvia:	Estonia:
Kaunas	Riga	Tallinn
Panevezys	Bauska	Pärnu
Marijampole	Salaspils	Rapla
Marijampoles rajonas	Saulkrasti	Haademeeste vald
Prienai rajonas	Iecavas novads	Surju vald
Kaunas rajonas	Baldones novads	Sauga vald
Kaisiadoris rajonas	Kekavas novads	Are vald
Jonavas rajonas	Salaspils novads	Halinga vald
Kedainiai rajonas	Stopinu novads	Marjamaa vald
Panevezys rajonas	Bauskas novads	Raikkula vald
Pasvalis rajonas	Garkalnes novads	Rapla vald
	Adazu novads	Kohila vald
	Sejas novads	Kiili vald
	Saulkrastu novads	Rae vald
	Limbazu novads	Juuru vald
	Salaogriivas novads	Paikuse vald
	Ropazu novads	Saarde vald
		Saku vald
		Tahkuranna vald

On average, in order to follow the necessary planning procedures the selected route has to be designated in the spatial plans of the above listed administrative territories. The municipalities have to initiate and develop amendments to the existing spatial plans or develop new spatial plans for their territories. Spatial plans are planning documents that are subject to strategic environmental assessment. In average this process takes at least one year as it involves various public consultations. All currently reserved territories must remain reserved until the next planning stages. All municipalities that are located in the potential Rail Baltica "Red route" corridor should foresee this project in local planning document.

Figure 30 - Estonia Municipalities Map



Figure 31 - Latvia Municipalities Map



Figure 32 - Lithuania Municipalities Map



8.3 Effect on Natura 2000 Sites

Following the selection of the preferred route, an additional assessment has been performed in order to analyse further the potential impact on the various environmental aspects including biodiversity. The summary of the information related to the Natura 2000 territories that are traversed by the selected route is presented in Figure 30 and Table 86. Although the table covers exclusively the Natura 2000 territories which are crossed by the proposed route, further evaluation during subsequent design stages, will incorporate the assessment of all the territories identified during the preliminary investigation stage and the impact on all territories within the 2 km wide proposed corridor. In addition, impact mitigation measures will be proposed as part of this future analysis.

A comparison of the Natura 2000 territories in all three Baltic States demonstrates that the protected territories were created with a similar, yet somewhat different outlook. For instance, in Estonia many smaller sized protected areas can be found, aimed at conservation of just one species, for example the black stork (*Ciconia nigra*). Taking into consideration that this species is sensitive to anthropogenic disturbance, it is also necessary to evaluate broader territories, exceeding the regions within the protected areas. As such, the future investigations will present a detailed analysis of the impact of the route on the species migratory routes, taking into consideration the important role that the Natura 2000 territories play in the conservation of the various ecosystem functions.

In general, wherever possible, the proposed route was designed to bypass the Natura 2000 sites. As a result the key environmental areas crossed are mainly the various rivers and river valleys. All the rivers crossed, depending on the length and the size of their catchments, represent ecological corridors of various levels of importance. At the detailed design stage it is important to assess the ecosystem value within each Natura 2000 territory and make the necessary adjustments to the route in order to minimise the potential impact on the protected species and habitats.

In order to minimise the fragmentation of the natural habitats, it is advisable, wherever possible, to ensure that the proposed route utilises the same overall corridor as other linear infrastructure objects. Additional environmental assessments and specific field research must be conducted at later planning/design stages to determine if the preferred alignment may need to be slightly adjusted at both Natura 2000 sites "Vitupes ieleja" (LV0530500) and „Sventosios upe zemiau Andrioniskio" (LTUKM0002) to minimize disruption of these natural habitats.

In addition, environmental aspects such as geological sink holes and agricultural aspects are significant, but are not excluding factors. Each issue would require specific technical/ regulatory solutions to ensure safe traffic. These aspects have to be considered and analyzed in the EIZ study and only then decision makers will have sufficient information for acceptance or refusal of planned activity

Figure 33 - "Vitupes ieleja" (LV0530500) and „Sventosios upe zemiau Andrioniskio" (LTUKM0002)



Figure 34 - Natura 2000 Sites Crossed by the Preferred Route



Table 88 - Description of the Natura 2000 sites crossed by the Alternative I

Name of site	Site code	Area, ha	Site type	Annex 1, habitat types	Annex 1, Territory covered by habitat, %	Birds listed on Annex I of Council directive 79/409/EEC		Listed on Annex II of Council directive 92/43/EEC					Comment
						Birds, Annex 1	Regularly occurring Migratory Birds	Mammals	Amphibians	Fishes	Invertebrates	Plants	
Lemmejõe	EE0040342	5	Habitats directive site (SCI)	3260	100	No data	No data	<i>Lutra lutra</i>	No data	<i>Lampetra fluviatilis</i>	<i>Unio crassus</i>	No data	Crossing the river
Pärnu jõe	EE0040345	862	Habitats directive site (SCI)	3260, 6450, 6530	100	No data	No data	No data	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i> , <i>Salmo salar</i>	<i>Unio crassus</i>	No data	Crossing the river
Reiu jõe	EE0040384	104	Habitats directive site (SCI)	3260	100	No data	No data	No data	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i>	<i>Unio crassus</i>	No data	Crossing the river
Salacas ieleja	LV0302200	6251	Birds and habitats directives site (C)	9180, 91D0, 8310, 8220, 7160, 7110, 6430, 6210, 3260, 91E0, 6510, 6270, 6450, 6230, 7150, 7220	24.5	See Note 1	No data	<i>Lutra lutra</i> , <i>Myotis dasycneme</i> , <i>Ursus arctos</i>	No data	<i>Cobitis taenia</i> , <i>Cottus gobio</i> , <i>Lampetra fluviatilis</i> , <i>Salmo salar</i> , <i>Rhodeus sericeus amarus</i> , <i>Pelecus cultratus</i> , <i>Misgurnus fossilis</i> , <i>Lampetra planeri</i>	<i>Leucorhina pectoralis</i> , <i>Ophiogomphus cecilia</i> , <i>Osmoderma eremita</i> , <i>Unio crassus</i> , <i>Vertigo angustior</i> , <i>Vertigo geyeri</i>	<i>Agrimonia pilosa</i> , <i>Dicranum viride</i>	Crossing the river
Garkalnes meži	LV0527400	1785	Birds and habitats directives site (C)	9010, 4030	8.5	See Note 2	No data	No data	No data	No data	<i>Ophiogomphus cecilia</i>	<i>Pulsatilla patens</i>	Crossing forest area

Vitrupe leleja	LV0530500	126	Habitats directive site (SCI)	9180, 91F0, 9010, 8220, 3260, 6270, 6450	45.5	See Note 3	No data	Lutra lutra	No data	Cobitis taenia, Cottus gobio, Lampetra fluvialis, Lampetra planeri, Salmo salar	Lycaena dispar, Unio crassus, Vertigo genesii	No data	Crossing the river
Jiesios upė ir jos šleniai	LTKAU0014	388	Habitats directive site (SCI)	9180	11	No data	No data	Lutra lutra	No data	No data	Cucujus cinnaberinus	No data	Crossing the river
Sventosios upė žemiau Androniskio	LTUKM0002	1654	Habitats directive site (SCI)	No data	No data	No data	No data	Lutra lutra	No data	Cobitis taenia, Lampetra fluvialis, Rhodeus sericeus amarus, Sabanejewi a aurata, Salmo salar	Ophiogomphus cecilia	No data	Crossing the river
Neries upė	LTVIN0009	2395	Habitats directive site (SCI)	3260	11	No data	No data	Lutra lutra	No data	Aspius aspius, Cobitis taenia, Cottus gobio, Lampetra fluvialis, Rhodeus sericeus amarus, Salmo salar	Ophiogomphus cecilia	No data	Crossing the river
Kalvarijos apylinkės	LTKALB001	19751	Birds directive site (SPA)	6210, 6430, 6450, 6510	No data	See Note 4	No data	No data	No data	No data	No data	No data	Crossing agricultural and forest areas

Data source: Natura 2000 standard data form (<http://natura2000.eea.europa.eu>)

Habitat
Code

Habitat description

- 3260 Water courses of plain to mountain levels with the *Ranunculus fluitans* and *Callitriche-Batrachion* vegetation
- 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites)
- 6230 Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas in Continental Europe)
- 6270 Fennoscandian lowland species-rich dry to mesic grasslands
- 6430 Hydrophilous tall herb fringe communities of plains and of the mountain to alpine levels
- 6450 Northern boreal alluvial meadows
- 6450 Northern boreal alluvial meadows
- 6510 Lowland hay meadows (*Alpecurus pratensis*, *Sanguisorba officinalis*)
- 6530 Fennoscandian wooded meadows
- 7110 Active raised bogs

7150	Depressions on peat substrates of the Rhynchosporion
7160	Fennoscandian mineral-rich springs and springfens
7220	Petrifying springs with tufa formation (Cratoneurion)
8220	Siliceous rocky slopes with chasmophytic vegetation
8310	Caves not open to the public
9180	Tilio-Acerion forests of slopes, screes and ravines
4030	European dry heaths
9010	Western Taiga
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)
91F0	Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers (<i>Ulmenion minoris</i>)

Note 1: *Alcedo atthis*, *Bonasa bonasia*, *Ciconia ciconia*, *Ciconia nigra*, *Crex crex*, *Dendrocopos leucotos*, *Dendrocopos medius*, *Dryocopus martius*, *Ficedula parva*, *Glaucidium passerinum*, *Lullula arborea*, *Lanius collurio*, *Pandion haliaetus*, *Picoides tridactylus*, *Picus canus*, *Strix uralensis*, *Tetrao urogallus*

Note 2: *Aegolius funereus*, *Anthus campestris*, *Caprimulgus europaeus*, *Ciconia nigra*, *Coracias garrulus*, *Crex crex*, *Dryocopus martius*, *Lanius collurio*, *Lullula arborea*, *Pernis apivorus*, *Picus canus*

Note 3: *Alcedo atthis*, *Bonasa bonasia*, *Caprimulgus europaeus*, *Crex crex*, *Dendrocopos leucotos*, *Dendrocopos medius*, *Dryocopus martius*, *Glaucidium passerinum*, *Lanius collurio*, *Lullula arborea*, *Picoides tridactylus*, *Strix uralensis*

Note 4: *Alcedo atthis*, *Anthus campestris*, *Asio flammeus*, *Botaurus stellaris*, *Caprimulgus europaeus*, *Chlidonias niger*, *Ciconia ciconia*, *Circus aeruginosus*, *Circus pygargus*, *Crex crex*, *Grus grus*, *Lullula*

8.4 Land Use of Perspective Corridor

In order to characterize the land-use type within the 2 km-wide corridor of the selected route, the land use types were analysed based on the classification provided by the Corine Land Cover (CLC) database (www.eea.europa.eu/data-and-maps/data/). This database was created by the European Topic Centre for Land Use and Spatial Data Information and is widely used by the European Environmental Agencies of the EU member states when analysing land cover, land-use change, land-use planning etc. The Corine Land Cover database provides land cover data for all of the European States produced using a uniform methodology with 100m precision and represents the land cover for the year 2006. Within the selected route corridor 24 land cover classes can be identified out of the total 44 recognised by Corine in Europe.

The total area of the 2km wide corridor is 132,460 ha. Agricultural land is the prevailing land cover type within the corridor, covering 48% of the total corridor area and is mainly found in the southern parts of Latvia and Lithuania. Arable land constitutes approximately half of the agricultural land. The remaining half is characterised by complex cultivation patterns. This type of complex agricultural land use is more common in Estonia and northern Latvia where the territory is characterised by a highly heterogenic mosaic pattern.

The second most common land use is forest which covers up to 37% of the total proposed corridor area and can be mainly found in Estonia and northern Latvia. The major part of the forest area is covered by mixed and coniferous forests, with small regions of broad-leaved forest. Semi-natural and artificial surfaces cover 7% and 6% of the total corridor area respectively. The major part of the semi-natural area is occupied by scrub, which in the Baltic States often appears on abandoned agricultural land. Taking into consideration that the proposed railway route deliberately bypasses urban areas, it is not surprising that the area of artificial surface is low. In general the urban areas crossed are adjacent to the planned railway stations (Tallinn, Pärnu, Riga, Panevezys, Kaunas). Within the broad class of urban land cover, the major types are discontinuous urban fabric, industrial or commercial units, green urban areas and road and rail networks and associated land. Here, it is important to note that the proposed route within the urban areas goes through territories that are currently used as the railway corridors; therefore there will be no significant change in the land use within these urban areas.

Finally, an insignificant proportion (approx. 1%) of the total perspective area is covered by wetlands and water bodies.

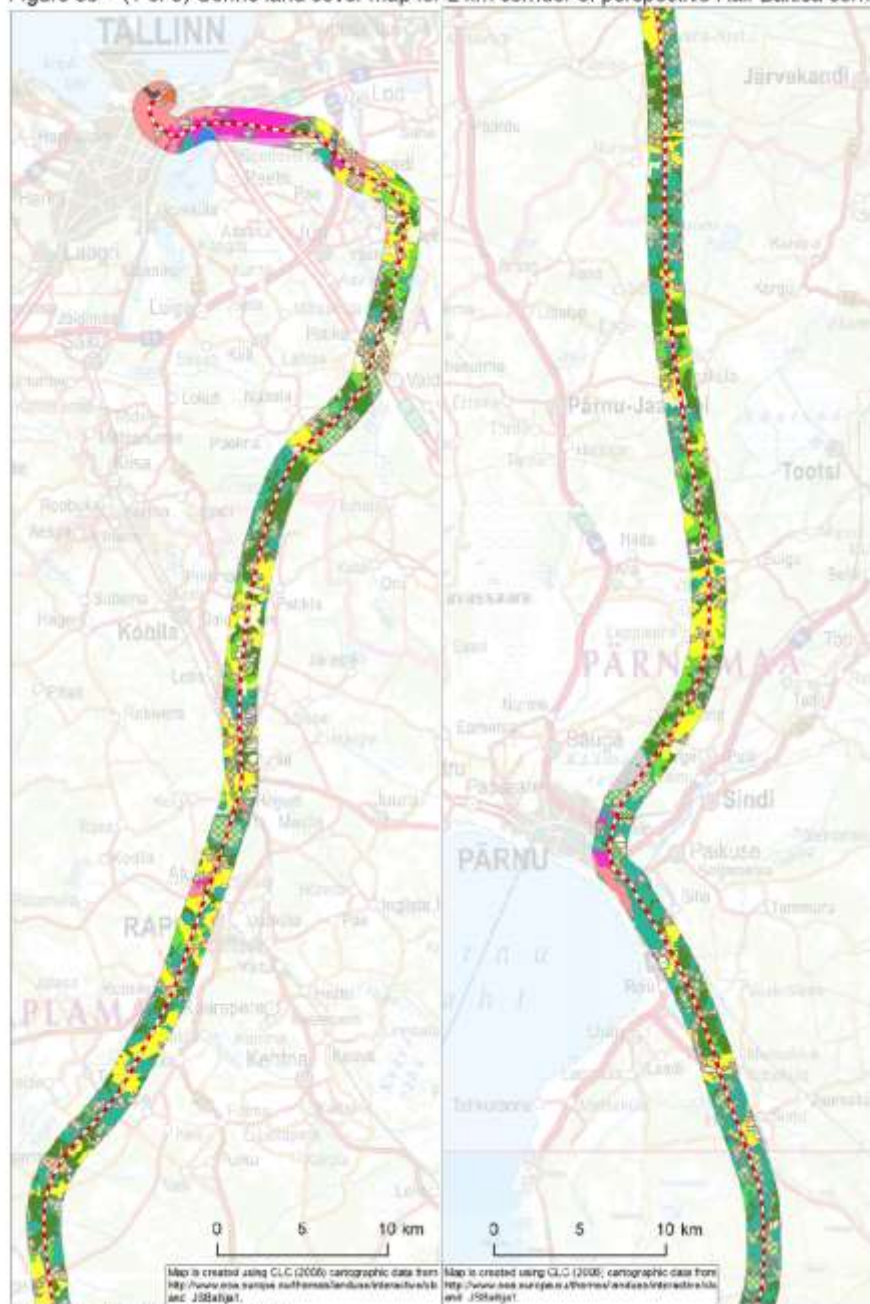
Table 89 - Distribution of CLC classes in 2km corridor of the Preferred Alternative

The distribution of CLC classes in 2 km corridor of the Alternative I

CLC code	CLC class	Area, ha	Count
	Artificial surfaces		
	<i>Urban fabric</i>		
111	Continuous urban fabric	112	3
112	Discontinuous urban fabric	3838	61
	<i>Industrial, commercial and transport units</i>		
121	Industrial or commercial units	2692	39
122	Road and rail networks and associated land	456	9
124	Airports	143	1
	<i>Mine, dump and construction sites</i>		
131	Mineral extraction sites	300	6
133	Construction sites	30	3
	<i>Artificial, non-agricultural vegetated areas</i>		
141	Green urban areas	493	11
142	Sport and leisure facilities	206	4
	Agricultural areas		
	<i>Arable land</i>		
211	Non-irrigated arable land	36164	167
222	Permanently irrigated land	482	7
	<i>Pastures</i>		
231	Pastures	5605	100
	<i>Heterogeneous agricultural areas</i>		
242	Complex cultivation patterns	13461	168
243	Land principally occupied by agriculture, with significant areas of natural vegetation	7576	169
	Forest and semi natural areas		
	<i>Forests</i>		
311	Broad-leaved forest	11088	177
312	Coniferous forest	18400	188
313	Mixed forest	19877	260
	<i>Scrub and/or herbaceous vegetation associations</i>		
321	Natural grasslands	84	2
322	Moors and heathland	66	1
324	Transitional woodland-shrub	8917	183
	Wetlands		
	<i>Inland wetlands</i>		
411	Inland marshes	149	6
412	Peat bogs	1272	8
	Water bodies		
	<i>Inland waters</i>		
511	Water courses	608	6
512	Water bodies	440	9
	Total:	132460	

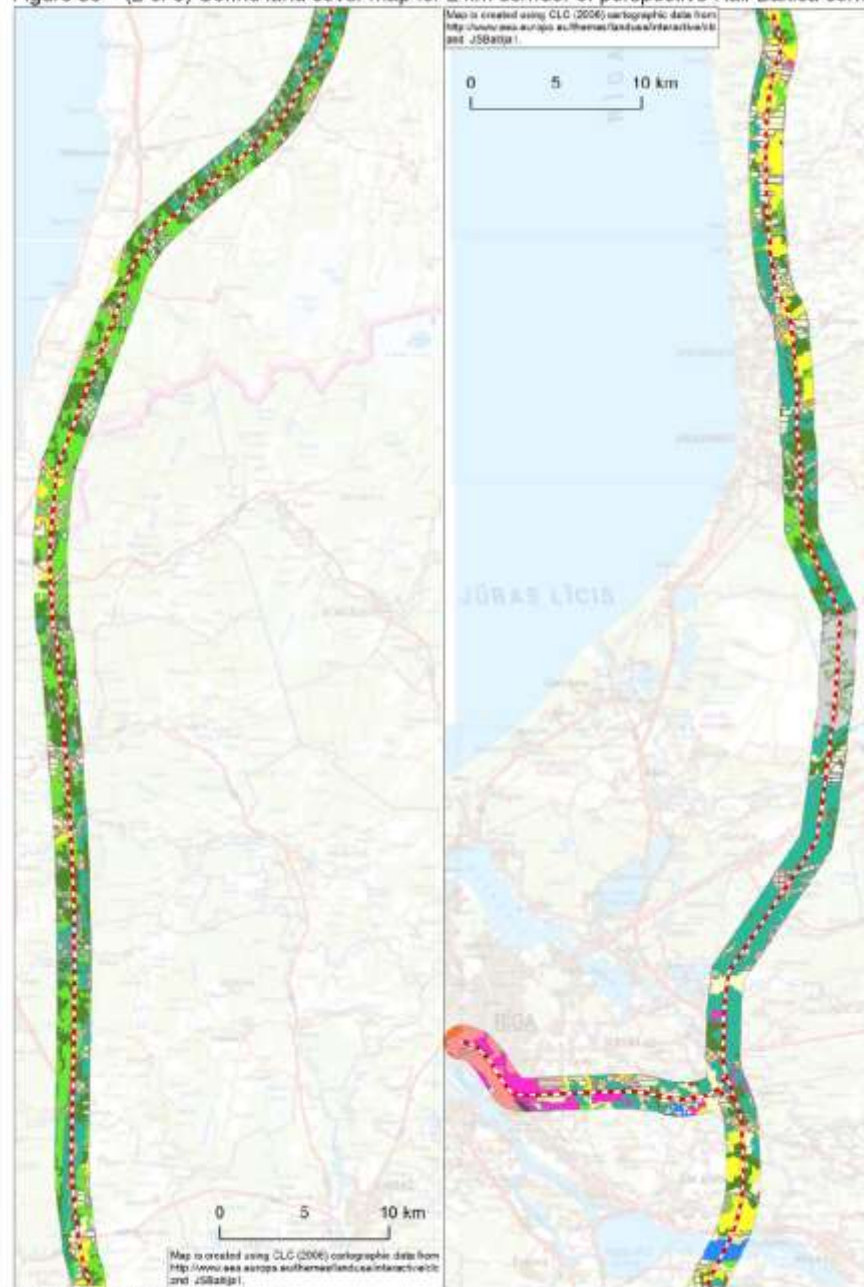
Given that agricultural land and forests occupy the greatest part of the proposed corridor in the next stages of the project development it is necessary to consider measures that will minimise the impact of the land cover fragmentation throughout the perspective route.

Figure 35 – (1 of 5) Corine land cover map for 2 km corridor of perspective Rail Baltica corridor, section Tallinn-Raplama-Pärnu



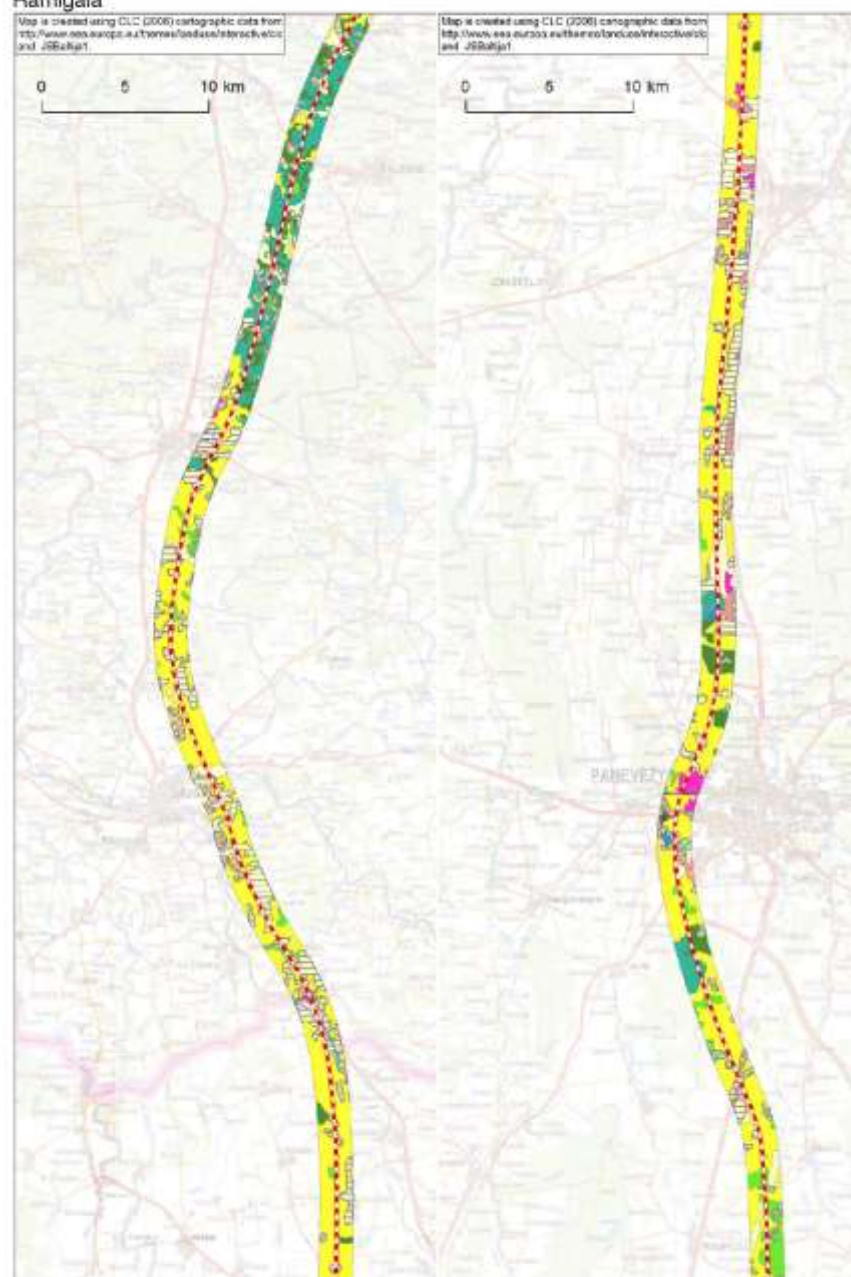
(Legend on Map page 5 of 5)

Figure 36 – (2 of 5) Corine land cover map for 2 km corridor of perspective Rail Baltica corridor, section Parnu-Limbazi-Salaspils



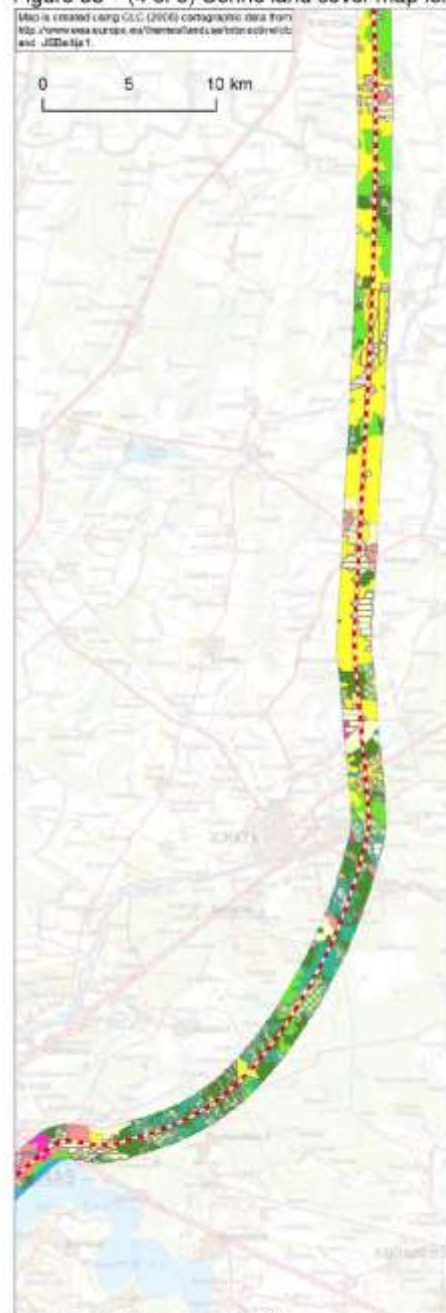
(Legend on Map page 5 of 5)

Figure 37 – (3 of 5) Corine land cover map for 2 km corridor of perspective Rail Baltica corridor, section Salaspils-Bauska-Ramigala



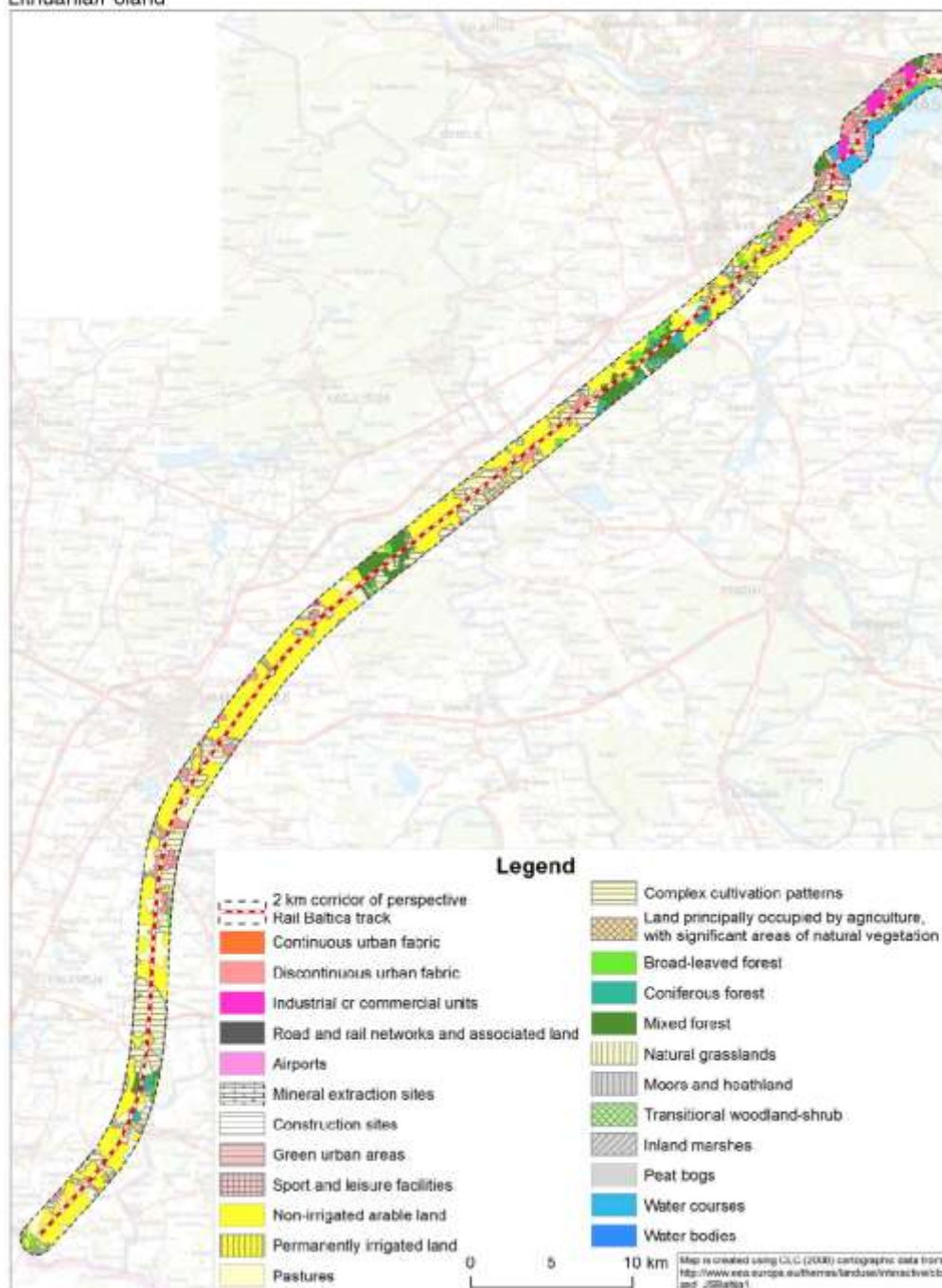
(Legend on Map page 5 of 5)

Figure 38 – (4 of 5) Corine land cover map for 2 km corridor of perspective Rail Baltica corridor, section Ramigala-Kaunas



(Legend on Map page 5 of 5)

Figure 39 – (5 of 5) Corine land cover map for 2 km corridor of perspective Rail Baltica corridor, section Kaunas-border of Lithuania/Poland



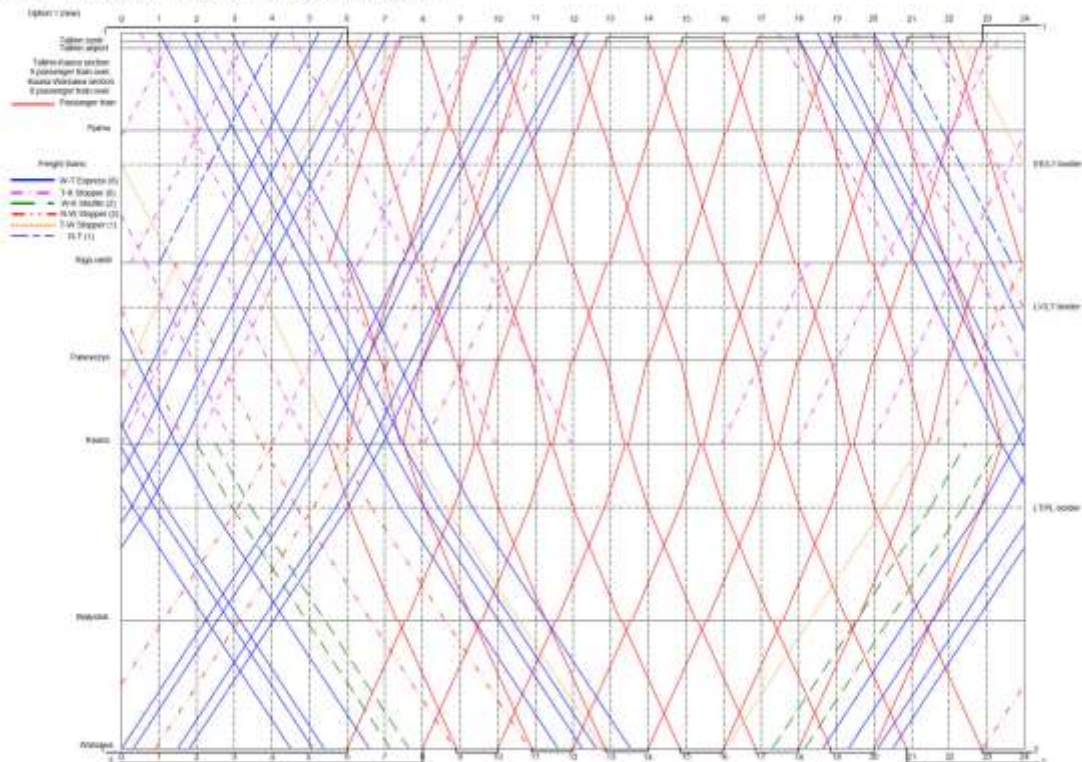
To maximize effectiveness, the operational framework for Rail Baltica aims to utilize the infrastructure asset to the maximum extent possible which in turn will require less train sets for both passenger and freight service. This gives the best return on investment, utilization of assets and lower operating costs.

Initial assumptions for the mixed-train service:

- 1) The timetable has been based on a 24 hour day operating on six days of the week.
- 2) The track will need to be inspected roughly once a week.
- 3) Sundays have been identified for a limited service to enable planned maintenance or reactive maintenance should inspection and testing require it.
- 4) Facing and trailing crossovers will be situated along the track to facilitate single line working
- 5) Maintenance can be carried out on a single line at a time (this will not apply to crossover areas where all lines will need to be blocked to undertake works).
- 6) Periodic blocks of a longer period (18-27 hours) will be available but not on a planned weekly basis
- 7) Time difference between Warsaw and Baltic States not taken into consideration duration are critical factors in determining service provisions. Exact and time zones need to be clarified at final design stages and integration with local arrivals and departures.

These assumptions will provide the basis for enabling the passenger and freight traffic to meet its market demand requirements in a more cost effective manner (i.e. reduce the number of train sets through availability of a longer operating day; and need for less stabling/handling sidings; less crew).

Figure 40 - Proposed Mixed-train Service Timetable



8.5.1 Passenger Services

A daily every two hour passenger service has been anticipated based on the passenger demand models. Sunday service may be limited on an infrequent basis to enable planned maintenance.

Services

Passenger's trains start from Tallinn at 06:00 a.m., from Riga to Tallinn at 05:30 a.m., from Riga to Warsaw direction at 06:00 a.m., from Kaunas to Tallinn direction at 06:00 and 07:30 a.m., from Kaunas to Warsaw at 05:30 a.m., and from Warsaw at 06:00 and 08:00 a.m.

Further the trains are sent from the starting station (Tallinn and Warsaw) every two hours. The last trains are sent: from Tallinn at 22:00, which travel to Riga and stay there till 5:30 to drive back to Tallinn. The other two trains leaving from Tallinn at 20:00 and 18:00 run until Kaunas to start on the way back to Tallinn at 6:00 and 7:30 a.m. The last train leaves from Warsaw at 20:00 and runs until Kaunas to start on the way back to Warsaw at 5:30 a.m. The former train leaves from Warsaw at 18:00 and runs until Riga to start on the way back to Warsaw at 6:00 a.m.

Overtaking points (crossovers or passing loops) are necessary at all intermediate stations: Parnu, Riga, Panevezys, Kaunas, Bialystok and LT (border LT).

Based on the timetable, 8 (eight) locomotives or ICE trains are required (not including reserve) for 9 pairs of passenger trains serving direction Tallinn - Kaunas and 8 pairs of trains serving direction Kaunas - Warsaw.

Infrastructure Requirements

Passenger service is highly dependent on streamlined access, entry and exit from each of the stations proposed on the line.

Estonia

- Tallinn Central Station
 - 2 European gauge tracks and platforms (dual track if required)
 - Extension of service to passenger ferries via local municipality public transit extension
- Tallinn Airport Station
 - 2 European gauge tracks and platforms (dual track if required)
 - Extension of service to airport via local municipality public transit extension*
 - Passing loop
- Parnu Station
 - 2 European gauge tracks and platforms (dual track if required)
 - Passing loop

Latvia

- Riga Central Station
 - 2 European gauge tracks and platforms (dual track if required) – Preferred location at central station platform No. 1. (Other locations can be considered in conjunction with Airport rail link final solution).
 - Extension of service to airport via local municipality public transit and/or railway express shuttle via 1520mm gauge alignment.
 - Additional crossover/passing opportunities will be provided off of the mainline on the Riga spur between Upeslejas and Riga Central Station.

Lithuania

- Panevezys Station
 - 2 European gauge tracks and platforms (dual track if required)
 - Passing loop

- Kaunas (Palemonas) Station
 - 2 European gauge tracks and platforms (dual track if required)
 - Extension of service to airport via local municipality public transit.
 - Extension to Kaunas Central Station and Vilnius Central Station via existing 1520mm rail infrastructure (Platform configuration will require further definition)
 - Passing loop

8.5.2 Freight Services

The freight infrastructure requirements for Rail Baltica have been based on the tonnages predicted in the "Medium" Case for the Red Route. Timetabling and infrastructure requirements are heavily dependent on demand.

Figure 41 - 2020 Intermodal Demand in Trains per Day

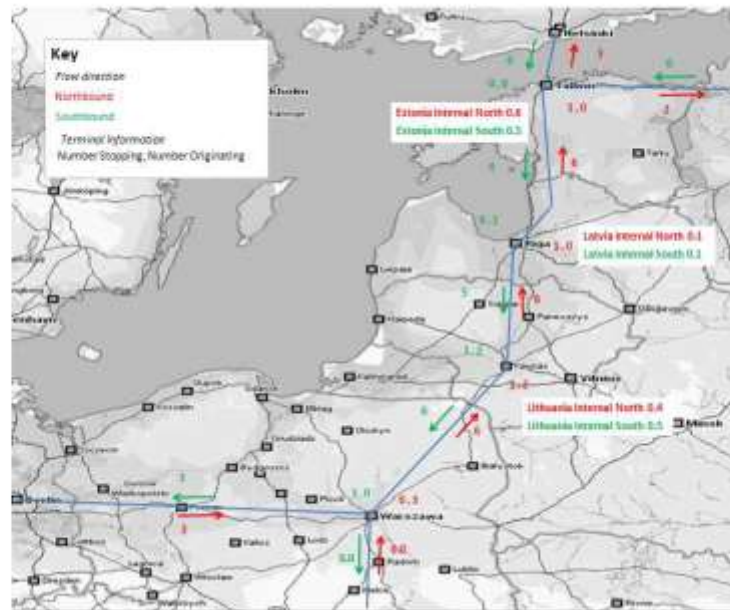
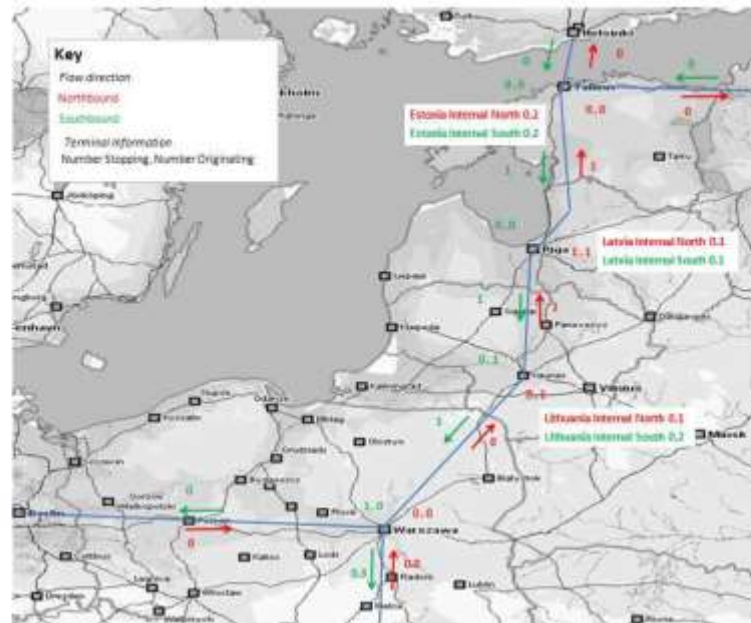


Figure 42 - 2020 Bulk Demand in Trains per Day



Services

The following freight service timetable for each of the planned freight service types on the preferred alternative has been established.

It has been calculated that the following services are sufficient to meet the demand:

Table 90 - Services and number of daily trains

Train Type	Service Types	2020	2030	2040
Intermodal	Warsaw-Tallinn Express	2	4	8
Intermodal	Warsaw-Kaunas Shuttle	2	2	2
Intermodal	Kaunas-Tallinn Stopper	2	4	6
Intermodal	Warsaw-Tallinn-Kaunas	1	1	1
Intermodal	Kaunas-Tallinn-Warsaw	1	1	1
Bulk	Riga-Tallinn	1	1	1
Bulk	Riga-Warsaw Stopper	2	2	2
Total		11	15	21

Tables below shows a possible way to accommodate the trains with contingency for maintenance.

Table 91 - Stabling of Trains in 2020

Train Type	Service Types	Total	Warsaw	Kaunas	Riga	Tallinn
Intermodal	Warsaw-Tallinn Express	2	1			1
Intermodal	Warsaw-Kaunas Shuttle	2	1	1		
Intermodal	Kaunas-Tallinn Stopper	2		1		1
Intermodal	Warsaw-Tallinn-Kaunas	1		1		
Intermodal	Kaunas-Tallinn-Warsaw	1	1			
Bulk	Riga-Tallinn	1			1	
Bulk	Riga-Warsaw Stopper	2	1		1	
Total Intermodal		8	3	3		2
Total Bulk		3	1		2	

Table 92 - Number of trains stabled in each country and contingency

Country	Type	2020	2030	2040
Poland	Intermodal	3	4	7
Lithuania	Intermodal	3	4	5
Estonia	Intermodal	2	4	6
Latvia	Bulk	3	3	3
Contingency	Intermodal	1	1	2
Contingency	Bulk	1	1	1
Total	Intermodal	9	13	20
Total	Bulk	4	4	4

Freight train schedule lines mainly were located on night time to minimize the number of overtaking points. Overnight intermodal trains that arrive at their terminals by 6am/7am enable a morning delivery to be made which offers a good level of customer service. This is seen as being important in rail winning modal share from road freight. The reality is that freight companies will want to use Rail Baltica at the times that suit their customers and overall business needs. Even though the indicative timetable shows few freight services running in the day time, the infrastructure manager will need to be flexible in the provision of freight train paths.

Priority was given to freight trains group (Priority) of Warsaw-Tallinn Express (8 pairs of trains) and Tallinn-Warsaw Stopper (1 pair of trains). The Tallinn-Warsaw Stopper waiting time on Riga and Kaunas stations will be 2 hours on every station.

The second big group of freight trains (Group 2) are Tallinn-Kaunas Stopper (6 pairs of trains) and Warsaw-Kaunas Shuttle (2 pairs of trains). The train Tallinn-Kaunas Stopper will wait on Riga station – 2 hours.

The third group of freight trains (Group 3) are Tallinn-Riga (1 pair of trains) and Riga-Warsaw Stopper (2 pairs of trains are for the movements of bulk on the routes).

Infrastructure Requirements

Based on the demand and services discussed above, the infrastructure requirements have been calculated for each country, this infrastructure is sufficient to run the services.

2020 infrastructure

Figure 39 below shows the infrastructure required at each of the major terminals, it should be noted that each country will require a domestic siding possibly in conjunction with a freight loop.

Estonia

- Doubled ended siding with engine runround for bulk commodity trains
- Tallinn Intermodal terminal (Lagedi)
 - 2 European gauge double ended tracks plus engine runround
 - 1 Dual Gauge track with engine runround (would facilitate through Russian services)
- Maintenance facility for 10% spare intermodal trains and stabling and rail infrastructure (Rapla)
- A domestic siding in south Estonia in the vicinity of a freight loop

Latvia

- Riga Bulk Terminal (via 1520mm gauge line)
 - 2 track double ended siding and engine runround
- Riga Intermodal Terminal (Salaspils)
 - 2 track double ended siding and engine runround
- Possible Riga Port Siding and engine runround (via 1520mm gauge line)
- Freight loop
- Maintenance facility for bulk trains and rail infrastructure (Krievupe/Riga)
- A domestic siding in south Latvia in the vicinity of a freight loop (Iecava)

Lithuania

- Kaunas Intermodal Terminal (Palemonas)
 - 4 track double ended sidings and engine runround
- Bulk doubled ended siding with engine runround
- Maintenance facility for 10% spare intermodal trains and stabling and rail infrastructure (Jonava)
- A domestic siding in the vicinity of a freight loop

Poland

- Warsaw Intermodal Terminal
 - 4 track double ended sidings and engine runround
- Bulk doubled ended siding with engine runround
- Maintenance facility for 10% spare intermodal trains and stabling

2030 Infrastructure

In 2030 it is anticipated that there will be an additional 2 Warsaw-Tallinn intermodal express services and 2 Kaunas-Tallinn intermodal stopper services. In order to accommodate these it will require increasing the intermodal capacity at Tallinn, Kaunas and Warsaw, this can be achieved by building a further 2 tracks with double ended sidings at Tallinn and 1 additional track at each of Kaunas and Warsaw. When the original terminal is built land will be reserved for future-proofing the facility for the additional tracks needed.

2040 Infrastructure

By 2040 it is anticipated that a further 4 Warsaw-Tallinn intermodal express services will be in operation and an additional 2 Kaunas-Tallinn intermodal stopper services will run daily on top of 2030 services. This will require increasing capacity by building 3 further tracks and sidings at Tallinn, 2 further tracks and sidings in Warsaw and 1 further siding in Kaunas.

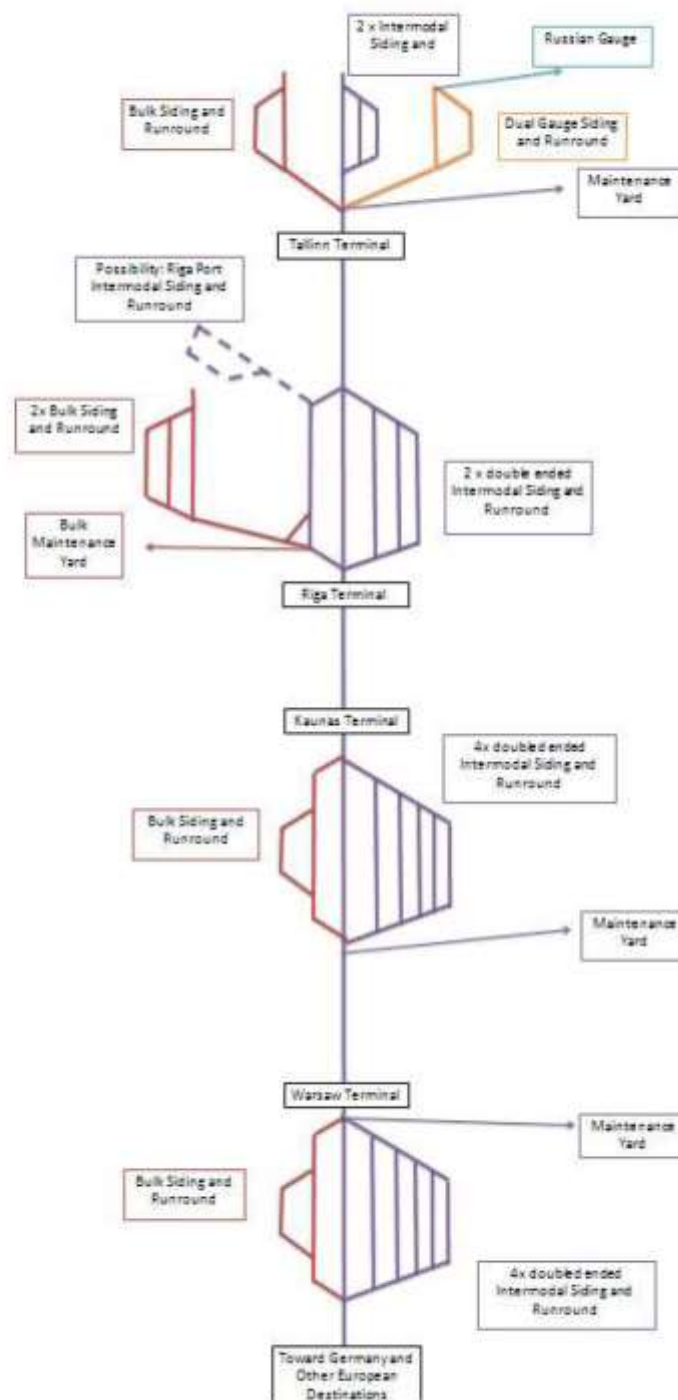
Table below shows the intermodal terminal requirements at Tallinn, Riga, Kaunas and Warsaw for 2020, 2030 and 2040.

Table 93 - Intermodal Terminal Requirements

Location		Number of Tracks with Sidings		
		2020	2030	2040
Tallinn	European	2	3	5
	Dual	1	2	3
Riga		2	2	2
Kaunas		4	5	6
Warsaw		4	5	7

It is anticipated that the 2020 infrastructure for bulk will be sufficient to handle the demand in 2040.

Figure 43 - 2020 Infrastructure Requirements



Risks

As with any proposed mixed-train service on independent and dedicated rail infrastructure certain compromises/risks must be evaluated to propose alternate solutions for risk aversion.

Maintenance

The primary risk to the proposed timetable is related to maintenance. Maintenance opportunities are severely limited based on the mixed-services required and the number and types of trains travelling on the route. This could have a potential long term impact on service reliability. The effects of this limited maintenance could be mitigated by over-engineering the track infrastructure (increased capital/construction costs) or incorporating train based methods, such as track recording vehicles, to supplement traditional inspections within the limited maintenance windows (increased operational costs of equipment procurement).

The track infrastructure maintenance technology could comprise train based inspection, monitoring and testing equipment, eg. track geometry, visual inspection, ultrasonic rail testing. Other maintenance activities, such as maintaining track geometry by using high output tamping machines, rail head profile maintenance using high speed grinders, would optimise maintenance output within reduced track access periods. The passing loops would facilitate maintenance access, by allowing operational traffic to by-pass section of track which could be taken for maintenance activity. The passing loops would also, and probably more frequently, be used for operational flexibility to regulate freight trains, allowing fast trains to pass. They should not be used for stabling maintenance vehicles.

The decision of where to locate the maintenance yards and freight terminals are mainly dictated by sensible operational practice and demand. The plan includes provision for stabling and maintenance facilities in each of the Baltic States including Poland on Rail Baltica. This not only shares out the work among the countries on the route and hence is seen to be as fair as possible in terms of new economic activity, but also ensures there is a body of trained staff with knowledge and also parts availability in reasonably close proximity to anywhere on the line. Therefore maintenance facilities are required at Tallinn, Riga, Kaunas and Warsaw. It is suggested that the maintenance facilities are developed in a multi-functional way so that any synergies in train servicing, permanent way, signalling and general maintenance can be made. Therefore sidings used for stabling passenger trains at night could be used for stabling a maintenance or freight train during the day. Similarly train washing and general utilities could be shared across all functions. Passing loops should mainly be used for the main purpose intended and that is to hold slower moving trains whilst faster trains overtake and should not be used as sidings. Passing loops offer flexibility in timetabling and operational running. On a route where there is a significant imbalance between high speed passenger trains and freight trains there is a need to ensure these passing loops are of sufficient length and are located strategically to avoid building in unnecessary delays to either types of train.

Another mitigation tactic would be to include additional crossovers to create discrete route sections which would allow more opportunity for maintenance access with single line working on the adjacent line (increased capital/construction costs). This would also provide enhanced operational flexibility in perturbed situations, i.e. bypassing a failed train or track defect.

Maintenance facilities have been identified in three (3) locations along the Route:

- 1) Lithuania maintenance facility at Jonava;
- 2) Latvia maintenance facility at Krievupe
- 3) Estonia maintenance facility at Rapla

The decision of where to locate the maintenance yards and freight terminals are mainly dictated by sensible operational practice and demand. The specific locations were selected in more remote areas to provide the necessary flexibility for the facility, access to labor, as well as to maximize connections with major roadways.

Overlap of services

Another risk is related to the cross-over/convergence of the EU gauge train sets with the existing 1520mm gauge train sets at stations and freight facilities. The timetable for the new service and the existing service will need to be calibrated to allow for efficient services for both systems.

Table 94 - Passenger Train Service Time Table

Passenger Train Service Time Table

Tallinn-Kaunas section 9 passenger train over.

Kaunas-Warsaw section 8 passenger train over.

Stop and waiting station	Departure station	Time	Arrival station	Time	Journey time, h	
	Tallinn	6:00	Warsawa	12:51	6:51	6,9
Warsawa		12:51		14:00	1:09	1,2
	Warsawa	14:00	Tallinn	20:54	6:54	6,9
Tallinn		20:54		22:00	1:06	1,1
	Tallinn	22:00	Riga	23:54	1:54	1,9
Riga		23:54		5:30	5:36	5,6
	Riga	5:30	Tallinn	7:25	1:55	1,9
Tallinn		7:25		8:00	0:35	0,6
	Tallinn	8:00	Warsawa	14:50	6:50	6,9
Warsawa		14:50		16:00	1:10	1,2
	Warsawa	16:00	Tallinn	22:52	6:52	6,9
Tallinn		22:52		6:00	7:08	7,1
	Kauna	5:30	Warsawa	8:54	3:24	3,4
Warsawa		8:54		10:00	1:06	1,1
	Warsawa	10:00	Tallinn	16:55	6:55	6,9
Tallinn		16:55		18:00	1:05	1,1
	Tallinn	18:00	Kauna	21:21	3:21	3,4
Kauna		21:21		6:00	8:39	8,7
	Kauna	6:00	Tallinn	9:25	3:25	3,4
Tallinn		9:25		10:00	0:35	0,6
	Tallinn	10:00	Warsawa	16:51	6:51	6,9
Warsawa		16:51		18:00	1:09	1,2
	Warsawa	18:00	Riga	22:51	4:51	4,9
Riga		22:51		6:00	7:09	7,2
	Riga	6:00	Warsawa	10:54	4:54	4,9
Warsawa		10:54		12:00	1:06	1,1
	Warsawa	12:00	Tallinn	18:54	6:54	6,9
Tallinn		18:54		20:00	1:06	1,1
	Tallinn	20:00	Kauna	23:22	3:22	3,4
Kauna		23:22		7:30	7:08	7,2
	Kauna	7:30	Tallinn	10:54	3:24	3,4
Tallinn		10:54		12:00	1:06	1,1
	Tallinn	12:00	Warsawa	18:51	6:51	6,9
Warsawa		18:51		20:00	1:09	1,2
	Warsawa	20:00	Kauna	23:24	3:24	3,4
Kauna		23:24		5:30	6:06	6,1
	Warsawa	6:00	Tallinn	12:54	6:54	6,9
Tallinn		12:54		14:00	1:06	1,1
	Tallinn	14:00	Warsawa	20:52	6:52	6,9
Warsawa		20:52		6:00	9:08	9,1
	Warsawa	8:00	Tallinn	14:54	6:54	6,9
Tallinn		14:54		16:00	1:06	1,1
	Tallinn	16:00	Warsawa	22:51	6:51	6,9
Warsawa		22:51		8:00	9:09	9,2

191,8 h

Table 95 - Freight Train (Priority) Service Time Table
Freight Train (Priority) Service Time Table

Tallinn-Warsawa Express (8), Stopper (2)

Stop and waiting station	Departure station	Time	Arrival station	Time	Journey time, h	
	Tallinn	1:00	Warsawa	11:36	10:36	10,6
Warsawa		11:36		18:39	7:03	7,1
	Warsawa	18:39	Tallinn	5:15	10:36	10,6
Tallinn		5:15		17:56	12:41	12,7
	Tallinn	17:56	Warsawa	4:30	10:34	10,6
Warsawa		4:30		19:20	14:50	14,8
	Warsawa	19:20	Tallinn	5:54	10:34	10,6
Tallinn		5:54		18:30	12:36	12,6
	Tallinn	18:30	Warsawa	5:07	10:37	10,6
Warsawa		5:07		20:06	14:59	15
	Warsawa	20:06	Tallinn	6:39	10:33	10,6
Tallinn		6:39		18:48	12:09	12,15
	Tallinn	18:48	Warsawa	5:23	10:35	10,6
Warsawa		5:23		20:30	15:07	15,1
	Warsawa	20:30	Tallinn	7:06	10:36	10,6
Tallinn		7:06		20:00	12:54	12,9
	Tallinn	20:00	Warsawa	6:36	10:36	10,6
Warsawa		6:36		0:00	17:24	17,4
	Warsawa	0:00	Tallinn	10:36	10:36	10,6
Tallinn		10:36		1:39	15:03	15,05
	Tallinn	1:39	Warsawa	12:15	10:36	10,6
Warsawa		12:15		0:20	12:05	12,1
	Warsawa	0:20	Tallinn	10:54	10:34	10,6
Tallinn		10:54		2:00	15:06	15,1
	Tallinn	2:00	Warsawa	12:36	10:36	10,6
Warsawa		12:36		1:30	12:54	12,9
	Warsawa	1:30	Tallinn	12:06	10:36	10,6
Tallinn		12:06		2:56	14:50	14,8
	Tallinn	2:56	Warsawa	13:30	10:34	10,6
Warsawa		13:30		1:48	12:18	12,3
	Warsawa	1:48	Tallinn	12:24	10:36	10,6
Tallinn		12:24		22:12	9:48	9,8
	Tallinn	22:12	Riga	1:21	3:09	3,2
Riga						2,0
	Riga	3:21	Kauna	5:39	2:18	2,3
Kauna						2,0
	Kauna	7:39	Warsawa	12:48	5:09	5,2
Warsawa		12:48		16:04	3:16	3,3
	Warsawa	16:04	Kauna	21:12	5:08	5,1
Kauna						2,0
	Kauna	23:12	Riga	1:30	2:18	2,3
Riga		1:30		3:15	1:45	1,8
	Riga	3:15	Tallinn	6:30	3:00	3,0

413,6 h

Table 96 - Freight Train (Group 2) Service Time Table
Freight Train (Group 2) Service Time Table

Tallinn-Kauna Stopper (6), Kauna-Warsawa Shuttle (2)

Stop and waiting station	Departure station	Time	Arrival station	Time	Journey time, h	
Riga	Tallinn	17:28	Riga	20:36	3:09	3,2
						2
	Riga	22:36	Kauna	0:57	2:18	2,3
Kauna		0:57		2:30	1:33	1,6
	Kauna	2:30	Warsawa	7:38	5:08	5,2
Warsawa		7:38		17:18	9:40	9,7
	Warsawa	17:18	Kauna	22:26	5:08	5,2
Kauna					1:34	1,6
	Kauna	0:00	Riga	2:18	2:18	2,3
Riga						2,0
	Riga	4:18	Tallinn	7:27	3:09	3,2
Tallinn		7:27		19:28	12:01	12,0
	Tallinn	19:28	Riga	22:39	3:11	3,2
Riga						2,0
	Riga	0:39	Kauna	2:57	2:18	2,3
Kauna		2:57		2:00	23:03	23,1
	Kauna	2:00	Warsawa	7:08	5:08	5,2
Warsawa		7:08		18:10	11:02	11,0
	Warsawa	18:10	Kauna	23:18	5:08	5,2
Kauna		23:18		2:00	2:42	2,7
	Kauna	2:00	Riga	4:18	2:18	2,3
Riga						2,0
	Riga	6:18	Tallinn	9:27	3:09	3,2
Tallinn		9:27		21:30	12:03	12,1
	Tallinn	21:30	Riga	0:39	3:09	3,2
Riga						2,0
	Riga	2:39	Kauna	4:57	2:18	2,3
Kauna		4:57		15:58	11:01	11,0
	Kauna	15:58	Riga	18:15	2:18	2,3
Riga						2,0
	Riga	20:15	Tallinn	23:24	3:09	3,2
Tallinn		23:24		0:30	1:06	1,1
	Tallinn	0:30	Riga	3:39	3:09	3,2
Riga						2,0
	Riga	5:39	Kauna	7:57	2:18	2,3
Kauna		7:57		17:57	10:00	10,0
	Kauna	17:57	Riga	20:15	2:18	2,3
Riga						2,0
	Riga	22:15	Tallinn	1:24	3:09	3,2
Tallinn		1:24		2:30	1:06	1,1
	Tallinn	2:30	Riga	5:39	3:09	3,2
Riga						2,0
	Riga	7:39	Kauna	9:57	2:18	2,3
Kauna		9:57		19:57	10:00	10,0
	Kauna	19:57	Riga	22:15	2:18	2,3
Riga						2,0
	Riga	0:15	Tallinn	3:24	3:09	3,2
Tallinn		3:24		4:30	1:06	1,1
	Tallinn	4:30	Riga	7:39	3:09	3,2
Riga						2,0
	Riga	9:39	Kauna	11:57	2:18	2,3
Kauna		11:57		4:00	16:03	16,1
	Kauna	4:00	Riga	6:18	2:18	2,3
Riga						2,0
	Riga	8:18	Tallinn	11:27	3:09	3,2
Tallinn		11:27		17:28	6:00	6,0

241,0 h

Table 97 - Freight Train (Group 3) Service Time Table
Freight Train (Group 3) Service Time Table

Riga-Tallinn (1), Riga-Warsawa Stopper (2)

Stop and waiting station	Departure station	Time	Arrival station	Time	Journey time, h	
	Riga	1:00	Tallinn	4:09	3:09	3,15
Tallinn		4:09		20:30	16:21	16,4
	Tallinn	20:30	Riga	23:33	3:03	3,05
Riga		23:33		1:24	1:51	1,85
	Riga	1:24	Kauna	3:42	2:18	2,3
Kauna						2
	Kauna	5:42	Warsawa	10:48	5:06	5,1
Warsawa		10:48		22:54	11:42	11,7
	Warsawa	22:54	Kauna	4:02	5:06	5,1
Kauna						2
	Kauna	6:02	Riga	8:20	2:18	2,3
Riga		8:20		23:24	15:04	15,07
	Riga	23:24	Kauna	1:42	2:18	2,3
Kauna						2
	Kauna	3:42	Warsawa	8:48	5:06	5,1
Warsawa		8:48		0:54	16:06	16,1
	Warsawa	0:54	Kauna	6:02	5:08	5,1
Kauna						2
	Kauna	8:02	Riga	10:20	2:18	2,3
Riga		10:20		1:00	14:40	14,7
						119,62 h

8.6 Costing Information

The costs of implementing and operating Rail Baltica are extremely important inputs to determine the economic costs and benefits of the project. Given that the project is in the early stage of the planning process and the cost model is subject to various uncertainties and therefore contingencies have been included to mitigate these uncertainties. The costing information for the preferred alignment includes various elements that relate to capital costs (CAPEX - planning, design, land, and construction costs), as well as operational costs (OPEX costs covered in the section – Cost Benefit Analysis). All costs represented in the analysis, do not include VAT.

CAPEX Unit Cost Methodology

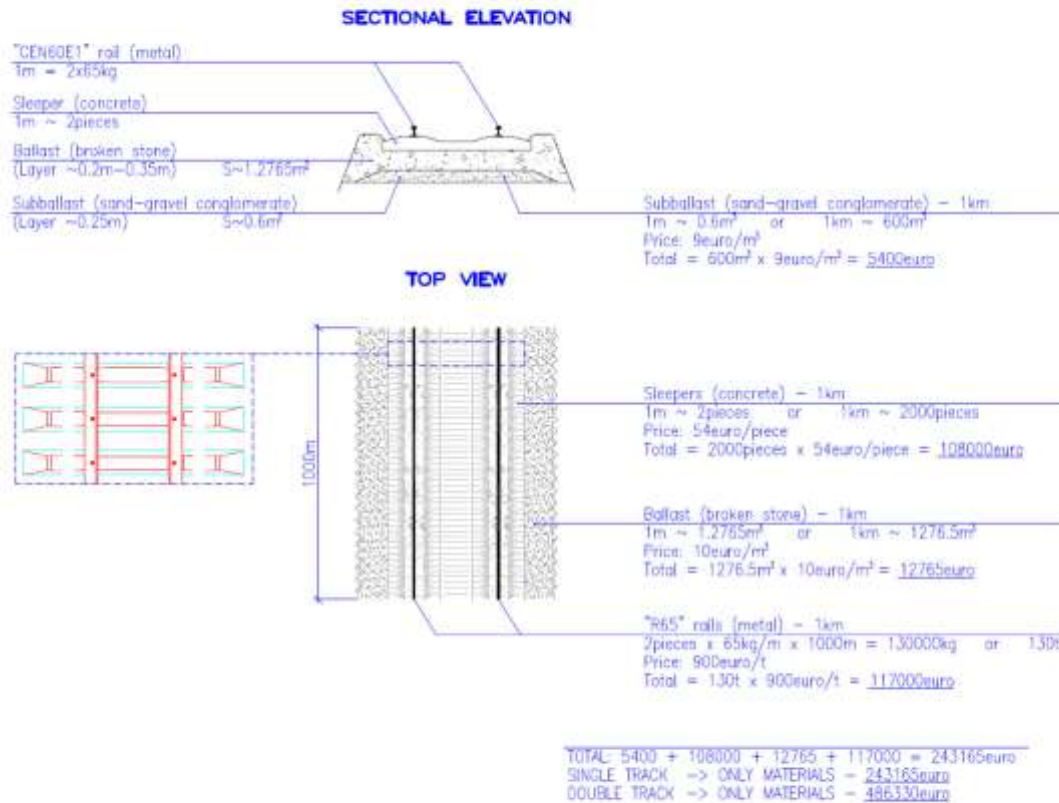
The capital costs were calculated on a unit costs basis in relation to various cost elements per segment of the entire route. The entire alignment was divided into 27 (A-W) segments of various lengths depending on geographic points/landmarks along the route (11 segments – Estonia, 7 segments – Latvia, 8 segments - Lithuania). Each section has a specific length based on the total alignment for the preferred alternative – total length 728 km.

Table 98 - Alignment Segmentation.

Section code	Cross-section type	Length, km
A	1,2	10,6
B	2	10,1
C	2	5,8
Tallinn		
E (1)	2,3	6,9
TUL		
E (2)	2,3	8,7
D	1	2,4
F	1	10,9
G	1	27,5
H	1	83,6
Parnu		
I	2	4,0
J	1	58,3
K	1	61,1
L	1	30,8
M	1	5,2
N	1	15,4
O (in)	1,3	25,4
Riga		
O (out)	1,3	25,4
P	1	71,7
Q (1)	1	62,5
Panевежыс		
Q (2)	1	80,7
R	1	23,9
Kaunas		
S	2	15,4
T	1	61,8
U	1	10,9
V	1	7,6
W	2	1,1
TOTAL:		727,7

As referenced in the table above, each segment has a track cross-section type based on its geometry and other constraints related to the location and required engineering of the track. In most cases the cross-section is a new 1435 mm gauge double track electrified railway, that in urban areas becomes constrained based on the existing system and therefore either transitions to a more constrained urban cross-section or becomes (as a worst-case scenario) dual gauge.

Figure 44 - Basis of Track Unit Costs



The track infrastructure estimate is based on materials (50%), equipment (20%), labour (22%) and other (8%) costs associated with double railway track, power network, electrification, SCB network, telecommunications, and GSM-R network. In addition, costs related to topographic surveys, geotechnical investigations, planning and design, author/technical supervision and a 5% contingency have been added to calculate the total expenditures related to track infrastructure.

Table 99 - Track Infrastructure Cost Estimate per Kilometer

Nr.	Item expenses	Cost
1	Double railway track	
	- materials (50%)	486 330 €
	- equipment (20%)	194 532 €
	- labour (22%)	213 985 €
	- other (8%)	77 813 €
	Sum:	972 660 €
2	Power network	
	- materials (50%)	125 000 €
	- equipment (20%)	50 000 €
	- labour (22%)	55 000 €
	- other (8%)	20 000 €
	Sum:	250 000 €
3	Electrification	
	- materials (50%)	500 000 €
	- equipment (20%)	200 000 €
	- labour (22%)	220 000 €
	- other (8%)	80 000 €
	Sum:	1 000 000 €
4	SCB network	
	- materials (50%)	142 857 €
	- equipment (20%)	57 143 €
	- labour (22%)	62 857 €
	- other (8%)	22 857 €
	Sum:	285 714 €
5	Telecommunication	
	- materials (50%)	64 286 €
	- equipment (20%)	25 715 €
	- labour (22%)	28 286 €
	- other (8%)	10 286 €
	Sum:	128 573 €
6	GSM-R network	
	- materials (50%)	42 857 €
	- equipment (20%)	17 143 €
	- labour (22%)	18 857 €
	- other (8%)	8 657 €
	Sum:	87 514 €
7	Topography	
	- price: 200 €/ha	
	- zone length: approx 810km	
	- zone width: approx 100m	
	- area: approx 8100ha	
	Sum:	2 000 €
8	Geology	
	- price: 85 €/point	
	- point interval: approx 250m	
	- zone length: approx 810km	
	- point quantity: approx 3240	
	Sum:	340 €
9	Planning & design	
	- approx 4% of realization cost	
	Sum:	109 072 €
10	Author/technical supervision	
	- approx 0,1% of realization cost	
	Sum:	2 836 €
11	Contingency	
	- approx 5% of realization cost	
	Sum:	141 935 €
12	Total expenditures	
	- materials	1 361 330 €
	- equipment	544 533 €
	- labour	598 985 €
	- other	475 796 €
	Overall:	2 980 644 €

* VAT is not included

Cost Model Assumption:

3,000,000 EUR for typical section,
3,500,000 EUR suburban section,
4,000,000 EUR urban section,
4,500,000 EUR complicated urban section

Table 100 - Total Track Infrastructure Related Costs

Section code	Length, km	Cost per km, €	Cost, €
A	10,6	3 500 000,0	37 100 000,0
B	10,1	3 000 000,0	30 300 000,0
C	5,8	3 000 000,0	17 400 000,0
Tallinn			
E (1)	6,9	4 000 000,0	27 600 000,0
TLL			
E (2)	8,7	4 000 000,0	34 800 000,0
D	2,4	4 000 000,0	9 600 000,0
F	10,9	3 000 000,0	32 700 000,0
G	27,5	3 000 000,0	82 500 000,0
H	83,6	3 000 000,0	250 800 000,0
Parnu			
I	4,0	3 000 000,0	12 000 000,0
J	58,3	3 000 000,0	174 900 000,0
K	61,1	3 000 000,0	183 300 000,0
L	30,8	3 000 000,0	92 400 000,0
M	5,2	3 000 000,0	15 600 000,0
N	15,4	4 000 000,0	61 600 000,0
O (in)	25,4	4 500 000,0	114 300 000,0
Riga			
O (out)	25,4		
P	71,7	4 000 000,0	286 800 000,0
Q (1)	62,5	4 000 000,0	250 000 000,0
Panevezys			
Q (2)	80,7	4 000 000,0	322 800 000,0
R	23,9	4 000 000,0	95 600 000,0
Kaunas			
S	15,4	3 500 000,0	53 900 000,0
T	61,8	3 000 000,0	185 400 000,0
U	10,9	3 000 000,0	32 700 000,0
V	7,6	3 000 000,0	22 800 000,0
W	1,1	3 000 000,0	3 300 000,0
TOTAL:	727,7		2 430 200 000,0

The total track-related construction costs are roughly 2,430M EUR.

In addition to the track infrastructure, additional above-grade road crossings and water crossings need to be considered along the entire alignment since TSI's dictate grade – separated crossing along the entire route (exceptions in urban areas). A total of 521 road crossings or road diversions were identified that included crossings of main roads, 1st class roads, 2nd class roads and other roads. Each road crossing or road diversion was assigned a unit cost.

Table 101 - Road Crossings

Section code	Length, km	Road crossings (bridges)							
		main roads (A, E class)	Cost per unit, €	1st class roads	Cost per unit, €	2nd class roads	Cost per unit, €	other roads	Cost per unit, €
A	10,6	1	400000	1	350000	4	300000	19	250000
B	10,1	1	400000	1	350000	1	300000	6	250000
C	5,8					1	300000	4	250000
Tallinn									
E (1)	6,9					1	300000		
TIL									
E (2)	8,7					1	300000		
D	2,4	4	400000	1	350000	2	300000	13	250000
F	10,9	1	400000			2	300000	6	250000
G	27,5	1	400000	2	350000	3	300000	15	250000
H	83,6			2	350000	16	300000	44	250000
Parnu									
I	4,0	1	400000					3	250000
J	58,3	1	400000	3	350000	8	300000	16	250000
K	61,1			3	350000	11	300000	25	250000
L	30,8			2	350000	6	300000	12	250000
M	5,2	1	400000			2	300000	6	250000
N	15,4			2	350000			31	250000
O (in)	25,4	2	400000	2	350000	4	300000	6	250000
Riga									
O (out)	25,4								
P	71,7	3	400000	6	350000	31	300000	33	250000
Q (1)	62,5	2	400000	2	350000	16	300000	13	250000
Panevezys									
Q (2)	80,7	3	400000	3	350000	19	300000	13	250000
R	23,9	1	400000			2	300000	11	250000
Kaunas									
S	15,4			2	350000	5	300000	10	250000
T	61,8	1	400000	3	350000	19	300000	12	250000
U	10,9			2	350000	2	300000	2	250000
V	7,6					2	300000	3	250000
W	1,1							1	250000
TOTAL:	727,7	23		37		158		304	

Table 102 - Water Crossings

Section code	Length, km	Water crossings					
		rivers	Cost per unit, €	reservoirs	Cost per unit, €	lakes	Cost per unit, €
A	10,6						
B	10,1						
C	5,8	1	350000				
Tallinn							
E (1)	6,9						
TLL							
E (2)	8,7	1	350000				
D	2,4						
F	10,9	3	350000				
G	27,5	4	350000				
H	83,6	22	350000				
Parnu							
I	4,0						
J	58,3	13	350000			1	400000
K	61,1	40	350000				
L	30,8	21	350000				
M	5,2	2	350000				
N	15,4	3	350000				
O (in)	25,4	1	350000				
Riga							
O (out)	25,4						
P	71,7	42	350000	1	212940000		
Q (1)	62,5	17	350000				
Panevezys							
Q (2)	80,7	13	350000				
R	23,9	7	350000				
Kaunas							
S	15,4	9	350000				
T	61,8	20	350000			1	400000
U	10,9	4	350000				
V	7,6	2	350000				
W	1,1						
TOTAL:	727,7	225		1		2	

Total costs associated to bridges are roughly 436M EUR.

In addition to rail infrastructure and bridges, additional costs were included for passenger station upgrades/construction, intermodal terminal construction, maintenance facility construction, cross-over integration and required passing-loops.

Note: The Daugava River crossing estimate of probable cost has been calculated based on a bridge length of 3.380m, a bridge width of 12.6m, and a cost/SQM of bridge deck of 5'000 EUR/SQM.

Total additional costs for facilities related improvements and construction is roughly 522M EUR.

Costs for land expropriation were established by reviewing current market assessment values (using 2011 market data) for the various types of land that will be required for implementing the preferred alternative. Various territory types will be required as referenced in the Land Uses (forest, agricultural and wetlands) and various settlement types will be impacted (towns/cities and suburbs). It is also assumed that a new alignment will require 100m ROW and an existing alignment will require 50m additional ROW.

Table 103 - Land Expropriation Average Cost Assumptions

Land Cost Assumptions:

Territories:	COST/ ha	COST/ km
Forests	3000 EUR/ha	30000 EUR/km
Fields	2600 EUR/ha	26000 EUR/km
Swamps	1500 EUR/ha	15000 EUR/km
Cities:		
Tallinn	300000 EUR/ha	3000000 EUR/km
Parnu	70000 EUR/ha	700000 EUR/km
Riga	150000 EUR/ha	1500000 EUR/km
Jelgava/Bauska/Iecava	30000 EUR/ha	300000 EUR/km
Panevezys	60000 EUR/ha	600000 EUR/km
Kaunas	45000 EUR/ha	450000 EUR/km
Villages:		
EE Villages	15000 EUR/ha	150000 EUR/km
LV Villages	15000 EUR/ha	150000 EUR/km
LT Villages	15000 EUR/ha	150000 EUR/km

Note: In Tallinn land costs are estimated to be higher than Riga, due to the fact that there is a need to buy back some land that could be used for residential and commercial areas.

For Riga, the land costs are lower since the alignment corresponds mainly with existing alignments or remote industrial areas, some of them may even be considered brownfields.

Table 104 - Total Land Costs

Section code	Length, km	Territory type, km						Settlements, km			
		forest	Cost, €	fields	Cost, €	swamps	Cost, €	towns	Cost, €	suburbs	Cost, €
A	10,6							10,6	31 800 000		
B	10,1							10,1	30 300 000		
C	3,8			4,8	124 800					2	150 000
Tallinn											
E (1)	6,9							6,9	20 700 000		
TÜL											
E (2)	8,7	0,5	30 000	1,1	28 600			6,2	18 600 000	0,8	135 000
D	2,4			1,2	31 200					1,2	180 000
F	10,8	4,6	138 000	4,8	124 800	0,7	10 500			0,8	120 000
G	27,5	12,6	378 000	7,6	197 600	5,7	85 500	0,7	490 000	0,9	135 000
H	83,6	40,4	1 212 000	17,5	455 000	24,5	367 500			1,2	180 000
Pärnu											
I	4,0	0,6	18 000	2,6	67 600	0,8	12 000				
J	58,3	36,6	1 098 000	11,8	301 800	10,1	151 500				
K	61,1	42,4	1 272 000	13,1	340 600	1,2	18 000			4,4	660 000
L	30,8	18,7	561 000	1,8	46 800	8,9	133 500			1,4	210 000
M	5,2	4,6	138 000	0,6	15 600						
N	15,4	13,1	393 000	2,3	59 800						
Q (in)	25,4	4,5	135 000	0,5	13 000			12,4	18 600 000	8,0	1 200 000
Rõu											
Q (out)	25,4	4,5		0,5				12,4		8,0	
R	21,7	18,8	564 000	51,2	1 333 200	1,2	18 000			0,5	75 000
Q (1)	62,5	16,0	480 000	44,1	1 146 600			1,5	900 000	0,9	135 000
Raivere											
Q (2)	80,7	23,4	702 000	54,3	1 411 800			2	1 200 000	3	450 000
R	23,9	15,8	474 000	3,9	101 400			4,2	1 890 000		
Kaunas											
S	15,4	1,2	36 000	3,5	91 000			5,1	2 295 000	5,6	840 000
T	61,8	19,5	585 000	36,8	956 800			1,7	765 000	3,8	570 000
U	10,8	2,2	66 000	8,7	226 200						
V	7,6			7,3	189 800					0,3	45 000
W	1,1			1,1	28 600						
TOTAL:	727,7	280,0		280,9		53,1		73,8		39,9	

Total cost for land expropriation (based on 2011 values) is roughly 149M EUR.

TOTAL CAPEX = 3,539M EUR

CAPEX SUMMARY (M EUR)	Construction	Land	TOTAL	%
Estonia	€ 935	€ 108	€ 1 043	29%
Latvia	€ 1 196	€ 26	€ 1 222	35%
Lithuania	€ 1 259	€ 15	€ 1 274	36%
TOTAL	€ 3 390	€ 149	€ 3 539	

Note: Costs have been validated to the accuracy required for this study. Any additional value engineering studies would need to be conducted as part of the technical design process.

Table 105 - Total CAPEX Costs

Section ends	Length, km	Cost per km, €	Cost, €	Road crossings (bridges)						Water crossings					Tertiary type, km						Settlements, km				Adjacent to the existing track, km	Passenger stations	Cost per unit, €	Intermodal terminals	Cost per unit, €	Maintenance facilities	Cost per unit, €	Crossings	Cost per unit, €	Total cost, € / Page 6 /																	
				main roads (A, E class)	Cost per unit, €	1st class roads	Cost per unit, €	2nd class roads	Cost per unit, €	other roads	Cost per unit, €	rivers	Cost per unit, €	reservoirs	Cost per unit, €	lakes	Cost per unit, €	forest	Cost, €	fields	Cost, €	swamps	Cost, €	towns											Cost, €	suburban	Cost, €														
A	10.6	3 500 000.0	37 100 000.0	1	4 000 000	1	350 000	4	300 000	1.8	250 000												10.6	31 800 000			8.4								43 800 000.00																
B	10.1	4 000 000.0	40 400 000.0	1	4 000 000	1	350 000	1	300 000	6	200 000												10.1	36 800 000			7.4								52 800 000.00																
C	5.8	3 000 000.0	17 400 000.0							4	250 000	1	350 000													1	150 000								19 450 000.00																
Tafelav																																				5 000 000.00															
E (1)	6.9	4 000 000.0	27 600 000.0																					6.9	22 700 000										27 800 000.00																
UL																																				84 800 000.00															
E (2)	8.7	4 000 000.0	34 800 000.0																					8.2	18 800 000	0.9	126 000	2.5								35 450 000.00															
D	2.4	4 000 000.0	9 600 000.0	4	4 000 000	1	350 000	2	300 000	1.8	250 000															1.1	150 000	18.2								15 400 000.00															
F	10.9	3 000 000.0	32 700 000.0	1	4 000 000					6	200 000	3	350 000														0.8	120 000									36 280 000.00														
G	27.8	3 000 000.0	82 500 000.0	1	4 000 000	2	350 000	3	300 000	1.8	250 000	4	350 000																							92 650 000.00															
H	83.6	3 000 000.0	250 800 000.0							44	250 000	22	350 000																								275 800 000.00														
Portus																																				64 800 000.00															
I	4.0	3 000 000.0	12 000 000.0	1	4 000 000																															13 250 000.00															
J	59.8	3 000 000.0	179 400 000.0	1	4 000 000	3	350 000	8	300 000	1.6	250 000	13	350 000																							187 700 000.00															
K	61.1	3 000 000.0	183 300 000.0							3	350 000	11	300 000	2.6	250 000	41	350 000		41.4	1 271 000	13.1	340 800	1.2	18 000		4.4	980 000									197 800 000.00															
L	80.8	3 000 000.0	242 400 000.0							2	350 000	6	300 000	1.2	250 000	21	350 000		16.7	561 000	1.8	46 800	9.4	123 500		1.4	210 000									249 280 000.00															
M	9.1	3 000 000.0	27 300 000.0	1	4 000 000																															28 800 000.00															
N	15.4	4 000 000.0	61 600 000.0							31	250 000	3	350 000																								71 500 000.00														
O (4)	26.4	4 000 000.0	105 600 000.0	2	4 000 000	2	350 000	4	300 000	6	250 000	1	350 000																							118 800 000.00															
P (4)																																					133 800 000.00														
Q (1 and 2)	72.7	4 000 000.0	290 800 000.0	6	4 000 000	6	350 000	31	300 000	19	250 000	42	350 000	1	21 200 000																						308 280 000.00														
R	40.6	4 000 000.0	162 400 000.0	2	4 000 000	2	350 000	14	300 000	2.3	250 000	17	350 000																								268 800 000.00														
Tafelav																																					64 800 000.00														
U (1)	80.1	4 000 000.0	320 800 000.0	8	4 000 000	8	350 000	19	300 000	1.8	250 000	13	350 000																								348 800 000.00														
V	21.9	4 000 000.0	88 000 000.0	1	4 000 000					2	350 000	11	250 000																								101 800 000.00														
X	15.4	3 000 000.0	46 200 000.0							3	300 000	1.2	250 000	3	350 000																						152 800 000.00														
Y	61.6	3 000 000.0	184 800 000.0	1	4 000 000	3	350 000	14	300 000	1.2	250 000	23	350 000																								206 460 000.00														
Z	10.9	3 000 000.0	32 700 000.0							2	350 000	4	350 000																								35 800 000.00														
AA	7.8	3 000 000.0	23 400 000.0							2	350 000	2	350 000																								24 800 000.00														
AB	1.1	3 000 000.0	3 300 000.0							1	350 000																										6 600 000.00														
TOTAL	727.7		2 499 200 000.0	23		37		118		394		226		2		2		180.0		286.9		53.1		75.8		38.8		65.8		5				9		8		3 196 240 000.00													
Includes Development																												€ 230 000				7 134 400				799 500				127 540 000				4 705 000						Construction Cost, €	€ 3 196 240 000.00
																										Land Cost, €				1,08 681 900.00								Land Cost, €				€ 148 681 900.00									
																																										TOTAL CAPEX, €				€ 3 196 931 900.00					

8.7 Cost Benefit Analysis and Risk Analysis

8.7.1 Cost Benefit Analysis Overview

This chapter discusses the economic cost-benefit analysis which assesses the value for money of the project from the viewpoint of society as a whole, regardless of to whom the benefits and costs fall.

An economic cost-benefit analysis assigns a value to certain goods, such as travellers' time, accidents and vehicle emissions, for which there is no direct market; and combines these with the values of elements such as capital costs, revenues and operating and maintenance costs to assess the overall project performance.

In the case of the Rail Baltica, a summary of the main costs and benefits, and their treatment in the economic cost-benefit analysis, is shown in Table below.

Table 106 - Economic Costs Benefit Analysis

Source of Cost / Benefit	Economic Cost Benefit Analysis	Source
Rail Manager		
Capital Cost	Cost of all elements of infrastructure including design and planning, land, construction, supervision and contingency	Valued net of VAT on materials, and social cost on labour
Maintenance Cost	All ongoing costs of maintaining the infrastructure during the appraisal period	
Track Access Charges	Charge paid by the passenger and freight operators to the manager for use of infrastructure	Based on approach outlined in EC document 2010/0253(COD)
Residual Value of the Project	Value of infrastructure at the end of the appraisal period.	Valued at a fraction of the construction cost depending upon the scale of the infrastructure.
Rail Operators		
Operating and Maintenance Costs	Costs of operating and maintaining the freight and passenger services, includes an elements to pay track access charge to manager	Valued net of VAT on materials
Revenues	Revenues generated over the appraisal period from fares paid by passengers and hauliers	Valued net of VAT
Transport Users		
Travellers Time Savings	Valued according to economic cost, by either savings to economy for business journeys, or value assigned by individuals for non business journeys	HEATCO values of time used for each country
External Effects		
Accident Savings	Valued according to economic cost, i.e. direct cost of emergency services, loss of the economic value of the lost working time in the case of death or serious injury. An allowance for pain and suffering can also be included	HEATCO values of time used for each country
Benefits From Reduced Emissions	Economic value assigned to the reduction in emissions of both greenhouse gases and local air pollutants.	IMPACT recommended value for CO ₂ emissions and HEATCO recommended value for air pollution emissions used

Note: The economic cost-benefit analysis is concerned with the resource value of goods, and it therefore excludes "transfer" payments, such as VAT and social payments, which are money payments transferred from one group in society to another, and do not represent the real consumption of resources.

The economic cost benefit analysis considers the resource cost of goods. Transfer payments such as VAT, which is considered a transfer payment because it generates a dis-benefit to the purchaser that is equally outweighed by the corresponding benefit to the government, are excluded from the analysis. VAT has been excluded from the capital costs, maintenance and operating costs and passenger and freight revenue lines in the analysis.

There are a number of guidance documents specific to the EU. These documents provide valuations and approach and hence have all contributed to the detailed approach to generating the economic cost benefit analysis including the placing of monetary values on air pollution, climate change and time savings as well as the processes for calculating costs.

The documents reviewed and used in some way included:

- Guide to Cost Benefit Analysis of Investment Projects – Structural Funds, Cohesion Fund and Instrument for Pre Accession – Final Report/ 16th June 2008 (European Commission Directorate General Regional Policy);
- Railway Project Appraisal Guidelines (RailPAG), EIB
- Developing Harmonised European Approaches for Transport Costing and Project Assessment (HEATCO) Deliverable 5 – Proposal for Harmonised Guidelines; February 2006 (EC)
- IMPACT (Internalisation Measures and Policies for All external Cost of Transport) Handbook on estimation of external costs in the transport sector, February 2008 (EC)

In accordance with the EC Guide to Cost Benefit Analysis of Investment Projects the economic analysis was prepared by the incremental method, which calculates the difference in the value of the economic parameters of the 'without project' and 'with project' alternatives. This means that only the costs and benefits associated with new or changed elements of the 'with project' scenario, that are different from the 'without project' scenario, have been assessed.

In the case of the evaluation of the Rail Baltica Scheme, the 'Business as usual' scenario includes the existing bus, rail and highway networks and foreseeable modernisation plans and future projects, including the following elements, (including those defined in the study Terms of Reference):

- 1520mm gauge line between Marijampole and Tallinn upgraded to minimum 120kph line speed wherever physically possible.
- Estonia
 - Tartu – Valga rail line upgrade
 - Tallinn – Tartu – Voru road enhancements
- Latvia
 - Riga – Krustpils second rail track
 - Riga Ring road Daugava Crossing
 - Kekava Bypass
 - Development of Riga International Airport hub including its envisaged rail connection
- Lithuania
 - 1435mm gauge track installed between PLLT border and Kaunas
 - Vilnius - Kaunas Rail modernisation (160kph)
 - Kaunas intermodal terminal
 - Improvements to E77 (Riga-Siauliai-Taurage-Kalligrad).

The 'with project' is identical to the 'Business as usual' option in all respects except it includes the proposed Rail Baltica red route option 1 service providing a higher speed rail link along the Warsaw to Tallinn corridor. This means that the elements listed above are also included in the 'with project' scenario. This enables the effect of Rail Baltica to be isolated from all other projects.

To conduct the analysis and evaluation of the project, an integrated dynamic cost benefit model has been developed, data models created and processes for investment and operational activities included.

The economic cost benefit analysis sums costs and benefits over a 30 year horizon period, with all data presented in years. The stages of implementation are:

- Investment period (13 years): 2012 – 2024;
- Operational period (30 years): 2025 – 2054.

An appraisal period of 30 years is recommended in the EC Guide to Cost benefit analysis for investment project for Rail Schemes. The 30 year appraisal period has been applied after opening to capture the project costs and benefits over the lifetime of the project.

The appraisal uses a discounted cash flow to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. In the calculation, the discount value used is 5.5%, in accordance with the EC Guide to Cost Benefit Analysis of Investment Projects.

8.7.2 Investment Costs

For this project the main source of expenditure is the initial capital costs.

Table 107 below summarises the estimate of capital costs for Rail Baltica Option 1.

Table 107 - Capital Costs (Millions of Euros)

Cost Component	Total Cost	Spend Profile												
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Planning and Design	102	5%	5%	5%	5%	20%	20%	20%	20%					
Land	149					25%	25%	25%	25%					
Construction Costs	3,390									20%	20%	20%	20%	20%
Project Management	34	3%	3%	3%	3%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Site Supervision	3									20%	20%	20%	20%	20%
VAT	744	0.2%	0.2%	0.2%	0.2%	0.7%	0.7%	0.7%	0.7%	19%	19%	19%	19%	19%
TOTAL CAPITAL COSTS	4,422	0.2%	0.2%	0.2%	0.2%	1.5%	1.5%	1.5%	1.5%	19%	19%	19%	19%	19%

The spend profile is based upon the project implementation plan.

Component parts of the construction cost have been estimated separately, the resultant split is summarised in Table 108.

Table 108 - Construction Costs Composition

Cost Component	Share
Equipment	20%
Materials	50%
Labour	22%
Other costs	8%

As part of the economic analysis, identifiable fiscal transfer payments should be eliminated from the project cash flow. These include, basic transfers include VAT as well as payment involving salaries and other taxes (e.g. fuel tax). The net financial flows for each year of analysis have therefore been adjusted by removing VAT and applying coefficients to remove social taxes.

In the CBA the objective is to appraise the social value of the investment. In some situations observed prices do not provide a fair measure of the social opportunity costs. This is usually due to market distortions. This issue is addressed by adopting conversion factors to convert from financial costs to economic costs. The EC Guide to Cost Benefit Analysis of Investment Projects indicates that these values should be calculated by the planning office of the member state and not on a project-by-project basis.

Given that as an EU financed projects all materials for the Rail Baltica project will be bought from EU countries, we assume that there will be limited price distortions. We have therefore adopted a Standard Conversion Factor of 1.0 in line with EC guidance in situations where the planning authority does not offer its own estimates.

Labour costs have, however, had the social tax element of wages removed by applying a further conversion factor of 0.76 to account for the average social tax in the Baltic States.

Table 109 below summarises the costs in the cost benefit analysis including a calculation of the total cost discounted to 2010 to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term.

Table 109 - Construction Costs used in Economic Appraisal

Total costs (€ '000,000)	Cost Estimate	Costs used in CBA	
		Undiscounted	Discounted
Design and Planning	102	102	71
Land	149	149	100
Construction Costs	3,390	3,208	1,692
Project Management	34	34	21
Site Supervision	3	3	2
VAT	744	0	
Residual Value		-1,238	-117
Total Capital Cost	4,422	2,257	1,769

8.7.3 Rail Manager Costs and Benefits

Once constructed the rail manager has to incur annual maintenance costs in order to ensure that the infrastructure remains available for passenger and freight services and safe to use. This cost will be offset to some degree by the track access charge that is paid to the manager by both passengers and freight service operators. These different cost elements are discussed below.

8.7.3.1 Maintenance Costs

The following elements have been included in the maintenance costs estimate:

Track	Price	Frequency
<i>Rail Grinding</i>	1000 € per km.	Once every 3 years
<i>Ballast Supplement</i>	1000 € per km.	Once every 5 years
<i>Track Tamped</i>	4000 € per km.	Once every 5 years
<i>Tensioning and Control</i>	1000 € per km.	Once every 5 years
<i>Insulated joint replacement</i>	4000 € each, 1.3 per km.	Once every 8 years
<i>Ballast cleaned</i>	30.00 € per km.	Once every 20 years
<i>Larger switch parts replaced</i>	15,000 € per switch, 1 switch per 5 km	Once every 20 years
Signalling and Telecommunication		
<i>Safety installations (station)</i>	1 million € per station (1 station per 20 km)	Once every 20 years
<i>Safety installations (switches)</i>	100,000 € per switch (1 station per 20 km, 4 switches per station)	Once every 20 years
<i>Safety installations (blocks)</i>	100,000 € per block, 1 block per 3 km	Once every 20 years
Overhead contact line / the catenary system		
Foundations and Poles		Assumed not to require replacement during appraisal period
All suspensions and catenary cables:	1,500 € per suspension, 20 suspensions per km	Once every 25 years
The overhead contact line	15,00 € per km.	Once every 25 years
Surrounding areas		
Weed control	5 m ² per 1 metre of track 0.1€ per m ²	

Over the 30 year appraisal period this amounts to a total maintenance cost of 353 million Euro, equivalent to an average annual cost of 11.8 million Euro. It should be noted however that due to the differing replacement intervals the annual maintenance costs vary from year to year.

The maintenance costs have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted maintenance cost over the 30 year appraisal period of 61 million Euros.

The maintenance rates per km of track are the same in all countries. Therefore when splitting maintenance costs between nations costs have been allocated according to the track length in each country. This leads to total discounted maintenance cost over the 30 year appraisal period of 19 million Euro in Estonia, of 20 million Euro in Latvia and of 22 million Euro in Lithuania.

8.7.3.2 Track Access Charges

The track access charge is paid by the passenger and freight operators to the rail manager. It is a reservation charge and allows the operator to use the infrastructure that is provided by the manager for a specific train path.

The current size of charge and method of calculation of track access charges vary across the three Baltic states, a common feature, however, is that the values currently charged are significantly higher than charged elsewhere in the EC. It is important in the analysis that the charges used reflect the charges that will be adopted if Rail Baltica is implemented. This study has therefore derived typical charges based upon the approach outlined in EC directives.

The EC document 2010/0253(COD) 'Proposal for a Directive of the European Parliament and of the council establishing a single European railway area (recast)' outlines proposals for changes to the directives covering the rail sector. This document includes changes to the principles of charging (article 31); and introduces exceptions to charging principles (article 32) to improve the coherence of national track access charging schemes through the introduction of common criteria for identifying market segments on which operators may be able to pay a mark-up in access charge.

Article 31 (Principles of charging) indicates that *"the charges for the minimum access package shall be set at the cost that is directly incurred as a result of operating the train service"*. Annex VIII, point 1 goes on to identify that the *"direct costs of the train service referred to in Article 31(3), which are related to infrastructure wear and tear, shall exclude the following items:*

- (a) *Network-wide overhead costs, including salaries and pensions;*
- (b) *Interest payable on capital;*
- (c) *More than one tenth of costs related to scheduling, train path allocation, traffic management, dispatching and signalling of a train run;*
- (d) *Depreciation of information, communication or telecommunication equipment;*
- (e) *Costs related to real estate management, in particular acquisition, selling, dismantling, decontamination, recultivation or renting of land or other fixed assets;*
- (f) *Social services, schools, kindergartens, restaurants;*
- (g) *Costs related to acts of God, accidents, service disruptions.*

When direct costs exceed, on a network-wide average, 35 % of average costs of maintaining, managing and renewing the network calculated on the basis of a train kilometre run, the infrastructure manager shall justify this in detail to the regulatory body. The average costs calculated for this purpose shall exclude cost elements referred to in points (e), (f) or (g)."

However, Article 32 (Exceptions to charging principles) identifies that "in order to obtain full recovery of the costs incurred by the infrastructure manager a Member State may, if the market can bear this, levy mark-ups on the basis of efficient, transparent and non-discriminatory principles, while guaranteeing optimal competitiveness in particular of international rail freight." Annex VIII, point 3 identifies the market segments which the infrastructure manager has to demonstrate to the regulatory body have the ability to pay mark-ups. This includes a distinction between passenger and freight services;

The EC document indicates that the starting point for setting track access charges should be a calculation of direct costs to the rail manager of the services running. This is calculated below based on the total rail managers maintenance cost over the appraisal period, and the total number of train km.

Table 110 - Track Access Charges based on Direct costs

Total Maintenance Cost		353	million Euro
Total train km	Freight	326	million train km
	Passenger	220	
	Total	546	
Track access charge		€0.65	per train km

These initial track access charges have been implemented in the financial analysis with the result that the Rail manager makes a loss (FNPV/C of -1,905 million Euro over the appraisal period excluding the EU grant and a FNPV/K of -286 million Euro over the appraisal period including the EU grant) while the operators make a profit, with a discounted NPV of 429 million Euro for the passenger operator (MIRR of 7.35%) and 875 million Euro for the freight operator (MIRR of 7.70%) over the appraisal period. This suggests that, in accordance with Article 32 of EC document 2010/0253(COD) mark-ups may be applied to obtain full recovery of the costs incurred by the infrastructure manager.

Track access Charges have been varied in an iterative process to minimise the financial losses of the rail manager whilst still providing financial return for the operators. The following optimal charges were determined:

Passenger services €3.95 per train km

Freight services €5.92 per train km

The charges have been set to meet the following requirements:

- Increase the rail manager's internal rate of return on investment cost (excluding impact of EU grant) above zero
- Equalise the passenger and freight operators profitability over the appraisal period as measured by their Modified Internal Rate of Return (MIRR)

This charging arrangement leads to a situation where:

- The **rail manager** has an internal rate of return over the appraisal period on the cost of investment excluding the impact of the EU grant (FIRR/C) of 0.05%. When the EU grant is included in the financial analysis the financial return on own national resource (FIRR/K) is 3.70%. These are higher than the rates of return achieved by the manager when no mark-up is added to the track access charge (FIRR/C of -2.69% and FIRR/K of 1.93%).
- The **passenger rail operator** has profitability over the appraisal period of 6.18% (as calculated by the Modified Internal Rate of Return (MIRR). This is a reduction from a profitability of 7.35% when no mark-up is added to the track access charge
- The **freight rail operator** has profitability over the appraisal period of 6.22% (as calculated by the Modified Internal Rate of Return (MIRR). This is a reduction from a profitability of 7.70% when no mark-up is added to the track access charge
- The approach adopted to determine whether the market can bear the cost of the track access charge mark-up has been based on an assessment of the level of operator profitability (calculated from the modified internal rate of return of the revenue in-flows on the operating cost out-flows including track access charges). As part of project development it may be necessary

for the infrastructure manager to conduct a more detailed market analysis, potentially split by further market segments, to compare costs of Rail Baltica against existing competing services to confirm the ability of the market to bear the cost of track access mark-ups. The analysis will, however, need to recognise that the quality of the service provided by Rail Baltica is higher than existing modes in terms of connectivity.

Over the 30 year appraisal period this amounts to a total passenger service track access cost of 744 million Euros, equivalent to an average annual cost of 24.8 million Euro; and a total freight service track access cost of 1,764 Million Euro, equivalent to an average annual cost of 58.8 million Euro.

The track access costs have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted track access cost over the 30 year appraisal period of 351 million Euro for freight services and 170 million Euro for passenger services.

The track access charges per train km are the same in all countries. Therefore when splitting charges between nations costs have been allocated according to the train km in each country (this includes an element allocated to Poland). This leads to total discounted track access cost over the 30 year appraisal period of 108 million Euro in Estonia, of 111 million Euro in Latvia and of 125 million Euro in Lithuania.

Note: Additional charges for the use of contact network in Lithuania is taken into consideration and is included as part of the overall track access charges.

8.7.4 Rail Operator Costs and Benefits

The rail operator has to incur operating and train maintenance costs in order to provide a service. This cost will include a payment to the rail manager to allow access to the track. These costs are offset to some degree by the revenue that is paid to the operator by both passengers and freight hauliers. These different cost elements are discussed below.

8.7.4.1 Operating Cost

Cost estimates have been made for the operating costs of the proposed passenger and freight Rail Baltica services.

Passenger service is assumed to be electric and passenger freight service is assumed to be diesel.

Freight Service Operating Costs

Table 111 below outlines the freight service operating cost elements included in the estimate, along with sources of the cost per train km.

Table 111 - Freight Service Operating Cost

		2020	2030	2040	Source
Freight Service Operating Cost (Euro per train km)	Fuel	2.75	2.75	2.75	Fuel prices based on average 2010 Diesel price in Baltic states, excluding VAT. Diesel fuel consumption is based on Freight Best Practice Research which looked at fuel use in three European operators and averaged around 0.5kms/litre
	Labour	0.36	0.36	0.36	Based on an estimate of staff numbers, wage rate per hour and employee costs
	Total Cost of Rolling Stock	1.79	1.79	1.79	Railway Wagon Costs and Maintenance based on WH Davis wagon manufacturer prices and rates for leasing and maintenance Train Depreciation – based on writing down costs over 10 years when a refurbishment would be required
	Lease Charges loco	0.58	0.58	0.58	
	Lease Charges Wagons	0.38	0.38	0.38	
	Maintenance Charges loco	0.50	0.50	0.50	
	Maintenance Charges Wagons	0.34	0.34	0.34	
	Overheads	0.72	0.72	0.72	Based on EC document 2010/0253(COD) See section 8.7.3.2 above
	Track Access	5.92	5.92	5.92	
	Total Operating Cost	11.55	11.55	11.55	
Total annual train km ('000,000)		4,577	6,676	10,141	Based on service pattern outlined in provisional timetable. Train numbers increase in later appraisal years due to larger freight demand volume.
Total annual cost million Euro		52.9	77.1	117.1	
Total annual track access million Euro		27.1	39.5	60.0	

Passenger Service Operating Costs

Table 112 below outlines the Passenger service operating cost per train km. The calculation is based on the Track access charge discussed in section 7.3.2 above and a bottom up calculation of the operating cost based on service elements such as staffing, fuel, rolling stock and overheads.

Table 112 - Passenger Service Operating Cost

		2020	2030	2040	Source
Passenger Service Operating Cost (Euro per train km)	Fuel	1.95	1.95	1.95	Electric cost is approximately 30% lower than Diesel based on research conducted for ORR, figure also corroborated by an EU passenger service operator.
	Labour	0.53	0.53	0.53	Based on an estimate of staff numbers, wage rate per hour and employee costs. Assumes 2 drivers and 2 conductors per service
	Total Cost of Rolling Stock	2.20	2.20	2.20	Lease and maintenance based on average cost of 5/6 car electric multiple units capable of achieving required speed, for example Hitachi class 395.
	Lease Charges	0.64	0.64	0.64	Assumes a 30 year life span with full refit after 15 years
	Maintenance Charges	0.64	0.64	0.64	Overheads assumed to be higher than freight given extra requirement for documentation, ticketing and other sundries
	Overheads	0.92	0.92	0.92	
	Track Access Charge	3.95	3.95	3.95	Based on EC document 2010/0253(COD) See section 8.7.3.2 above
	Total Operating Cost	8.63	8.63	8.63	
	Total annual train km ('000,000)	6.282	6.282	6.282	Based on service pattern outlined in provisional timetable. Train numbers are constant across appraisal years as service pattern remains constant.
	Total annual cost million Euro	54.2	54.2	54.2	
	Total annual track access million Euro	24.8	24.8	24.8	

Over the 30 year appraisal period this amounts to a total passenger service operating cost of 1,626 Million Euro, equivalent to an average annual cost of 54.2 Million Euro; and a total freight service operating cost of 3,440 Million Euro, equivalent to an average annual cost of 114.7 Million Euro.

The operating costs have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted operating cost over the 30 year appraisal period of 685 million Euro for freight services and 372 million Euro for passenger services

The operating costs per freight/passenger train km are the same in all countries. Therefore when splitting costs between nations costs have been allocated according to the train km in each country (this includes an element allocated to Poland). This leads to total discounted operating cost over the 30 year appraisal period for passenger service of 77 million Euro in Estonia, of 79 million Euro in Latvia and of 89 million Euro in Lithuania; and for freight service of 142 million Euro in Estonia, of 146 million Euro in Latvia and of 164 million Euro in Lithuania.

8.7.4.2 Revenue

Revenue will be generated for the operators of both the passenger and freight services from charges made to customers. Revenue estimates have been developed as part of the initial option appraisal. These revenue forecasts have been adjusted by removing VAT to ensure that fiscal transfer payments have been eliminated from the project cash flow.

The table below summarises the revenue cash flow net of VAT.

Table 113 - Passenger and Freight Service Revenue

	Annual Revenue (€000,000 per year)	
	Passenger Service	Freight Service
2020	64.3	109.2
2030	78.3	145.4
2040	95.6	183.2

Note: Revenue includes element generated by Rail Baltica users on section from Warsaw to Tallinn.

Over the 30 year appraisal period this amounts to total passenger service revenue of 2,842 million Euro, equivalent to an average annual revenue of 94.7 million Euro; and a total freight service revenue of 5,429 million Euro, equivalent to an average annual cost of 181.0 million Euro.

The revenues have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in total discounted revenue over the 30 year appraisal period of 1,142 million Euro for freight services and 605 million Euro for passenger services.

When splitting revenue between nations costs have been allocated according to the revenue generated in each country (this includes an element allocated to Poland). This leads to total discounted revenue over the 30 year appraisal period for passenger service of 129 million Euro in Estonia, of 160 million Euro in Latvia and of 215 million Euro in Lithuania; and for freight service of 353 million Euro in Estonia, of 339 million Euro in Latvia and of 322 million Euro in Lithuania.

8.7.5 Social Costs and Benefits

A key element of the economic cost benefit analysis is allocation of monetary values to the non market impacts of the scheme. These are impacts that are relevant to society but for which a market value is not available. Impacts include:

- Savings in travel time
- Prevention of road fatalities and accidents from diverting passengers and freight to the Rail Baltica
- Reductions in road air pollution emissions from diverting passengers and freight to the Rail Baltica
- Reductions in green house gas emissions from diverting passengers and freight to the Rail Baltica

The monetisation of these impacts are discussed in detail below.

8.7.5.1 Journey time savings

When a new transport service is introduced it usually provides a time benefit for the users who choose to use it. The benefit associated with the user time savings provided by the new service can be expressed in monetary terms by considering the economic cost of the time, as either savings to economy for business journeys, or value assigned by individuals for non business journeys. The economic value of the time saved will vary depending upon the trip purpose. For this analysis business trips and non-business trips have been considered.

In order to calculate the scale of time saving benefits three key market segments need to be considered:

- Existing Rail users who benefit from improved travel times;
- Modal transfer journeys that are created because of the improved attractiveness that the scheme provides.
- Newly generated trips which are made as a direct result of lower journey costs (induced demand).

The calculation of transport user benefits is based on a conventional consumer surplus theory. In simple terms, 'consumer surplus' is defined as the benefit which a consumer enjoys, in excess of the costs which he or she perceives. Across all travellers, the change in consumer surplus is the difference between the time the consumer is willing to spend making the journey and the prevailing journey time of the trip.

The method used to calculate the user time benefits and operating cost benefits uses the principle of a "rule of a half". This takes into account the fact that in usual conditions, demand changes in response to the increase or decrease in costs, there is therefore a lesser impact on new or mode shifting travellers. The conventional approach is to attribute half of the change in costs to the trip lost or gained. The rule of a half principle is therefore applied to calculate the user time saving benefits for these trips in accordance with EC guidance. This is shown as Equation 1.

Figure 45 - Equation 1 User Time Benefits Calculation

$$B_{UserTime} = \sum_i \sum_j (D_0 + D_1) * (C_0 - C_1) / 2$$

Where:

$B_{UserTime}$ – Total user time savings in minutes;

D_0 – Trip matrix in the Do-Minimum (reference case) scenario;

D_1 – Trip matrix in the Test scenario (post-demand model calculations);

C_0 – Travel time matrix in minutes in the Do-Minimum (reference case) scenario; and

C_1 – Travel time matrix in minutes in the Test scenario.

It should be noted that when calculating consumer surplus using the rule of half the do minimum travel cost (time in this case) against which the change in travel cost is assessed is that for the mode to which the users have switched and not the mode from which they have shifted. In this case that is the do minimum freight and passenger rail travel times.

Time-saving benefits have been assessed separately for passengers and freight users.

Passenger time saving benefits

The passenger group experiencing the greatest time saving benefit are Rail Baltica users who previously travelled by train, there are however very low levels of existing international demand using rail in the corridor meaning that this group is very small. Rail Baltica users who previously travelled by other modes, such as bus or car, experience lower benefits per person than users who previously travelled by train due to the application of the rule of a half. Nonetheless, this group forms the majority of the passenger time saving benefits due to the large number of passengers who are expected to shift to rail Baltic from competing modes. There is also a benefit to users who remain on the road due to reduced congestion and improved travel times in the Rail Baltica Corridor. It should be noted, however, that road decongestion benefits are expected to be very low relative to time saving benefits experienced by users who shift to Rail Baltica.

Passenger user time benefits have been calculated at a matrix level for both Rail Baltica users (both those who used rail in the do minimum and those who used other modes) and car users. This allows the rule of half to be applied

Freight time saving benefits

Time-saving benefits have been calculated at a matrix level for freight demand allowing the rule of a half to be applied. This is because the vast majority of freight demand is predicted to use Rail Baltica transfers from Road.

The Passenger and Freight models are based on a 24-hour day simulation period; for an average day (AADT). In order to assess the benefits of each scheme over the full appraisal period, these benefits are annualised using a factor of 365.

Over the 30 year appraisal period this amounts to a total passenger time saving benefit of 1,627 Million Euro, equivalent to an average annual cost of 54.2 Million Euro; and a total freight time saving benefit of 4,150 million Euro, equivalent to an average annual cost of 138.3 Million Euro.

The time saving benefits have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted time saving benefit over the 30 year appraisal period of 818 million Euros for freight users and 340 million Euros for passenger users.

When splitting benefits between nations benefits have been allocated according to the origin and destination country of the trip. This means that an element of the time saving, associated with trips from outside the Baltic States is allocated to Poland. This leads to total discounted time saving over the 30 year appraisal period for passenger users of 135 million Euro in Estonia, of 88 million Euro in Latvia and of 71 million Euro in Lithuania; and for freight users of 262 million Euro in Estonia, of 252 million Euro in Latvia and of 213 million Euro in Lithuania.

8.7.5.2 Accidents

Accident benefits to society arise as a result of reductions in road vehicle kilometres. This is particularly the case for Rail Baltica as a large number of truck trips are expected to shift to rail. An economic cost to society can be calculated for each road accident depending on its level of severity. The equation from which these impacts are calculated is shown by Equation 2.

Figure 46 - Equation 2 Accident Impact Calculation

Accident Impact = Accident rate per vehicle kilometre x Change in vehicle kilometres x Cost per accident.

Accident rates have been obtained for Latvia from the European Commission and Eurostat. The UK does have a comprehensive database of accident rates for different road types, and severity split of casualties (fatal, serious and slight). We therefore used the UK accident rates per road type, and severity split of casualties, but adjusted these to be compatible with the Latvian data for the overall accident rate for all roads, and the number of fatalities, serious and slight injuries. This method retains the integrity of the Latvian data. The critical assumption here is that the relationship between accident rates on different types of road is similar in both the UK and Baltic Countries.

It is recognised that accident rates will almost certainly reduce, as vehicles and roads become safer, and driving standards improve. Therefore, the accident rates were decreased over time by 1% per annum.

The savings resulting from reduced accident rates can be expressed as a monetary benefit. The benefits from a reduced number of road accidents consist of:

- Savings in the direct costs of providing emergency services;
- Savings due to reduced loss of economic output; and
- An estimate of the 'value' of grief and suffering.

The monetary benefit for casualties avoided is provided in the EC Guide to Cost Benefit Analysis of Investment Projects. Values are given separately for Estonia, Latvia and Lithuania and vary by accident severity.

The total volume of traffic removed from road by passengers and freight shifting to the Rail Baltica service has been determined from the demand models by calculating the change in road vehicle km that result from implementing the Rail Baltica service. It should be noted that the new rail service will remove a significant volume of trucks from the road. This amounts to a large reduction in vehicle km due to the long distance of truck trips, which in turn leads to significant accident savings.

Reductions in vehicle km in each country have been calculated, allowing the country specific cost per accident provided by the EC guidance to be applied. These benefits have been calculated over a 24 hour period and then annualised.

Over the 30 year appraisal period 6,560 accidents are expected to be avoided, (leading to a reduction of fatalities of 856, a reduction of severe injuries of 1,591 and a reduction of light injuries of 6,402). These accident reductions have a corresponding monetary value of 1,652 million Euro, equivalent to an average annual benefit of 55.1 million Euro.

The accident reduction benefits have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted accident reduction benefit over the 30 year appraisal period of 338 million Euros.

When splitting benefits between nations benefits have been allocated according to the country in which the accident reduction occurs (including an element allocated to Poland). This leads to total discounted accident saving over the 30 year appraisal period of 116 million Euro in Estonia, of 105 million Euro in Latvia and of 89 million Euro in Lithuania.

8.7.5.3 Air pollution

There are external costs resulting from air pollution, which are a measurable financial burden to the Society. Air pollutants from vehicles are a complex mix of chemicals that change, and after that leave the emission source. These include particulate matter, sulphur oxide, nitrogen oxides, carbon monoxide and CO₂. These pollutants impose a financial burden on the society by increasing health costs and damage to buildings, crops, flora and fauna.

The impact of air pollution can be quantified and is related to travel speed and vehicle type. The following relationship between vehicle speed and the emission of harmful substances has been used in other European countries

Figure 47 - Equation 3 Emissions of Harmful Substances Calculation

Light Vehicle

$$\text{CO: } e = 123.89 \cdot V^{-0.5383}$$

$$\text{NO}_2: e = -1E \cdot V^3 + 0.0006V^3 - 0.0373V + 2.0389$$

$$\text{SO}_2: e = 0.3293 \cdot V^{0.3776}$$

$$\text{PM}_{2.5}: e = 1.6369 \cdot V^{-0.95}$$

Heavy Vehicle

$$\text{CO: } e = 257.77 \cdot V^{-1.0217}$$

$$\text{NO}_2: e = 54.386 \cdot V^{-0.3871}$$

$$\text{SO}_2: e = 10.37 \cdot V^{0.5889}$$

$$\text{PM}_{2.5}: e = 4.2296V^{-0.7508}$$

Where

e is emission in g/km

V is travel speed in km/h

Reductions in emissions have been calculated separately for motorway, primary, secondary and urban roads. This is necessary as the average speed of vehicles, and therefore the emission per vehicle km will vary significantly across the different road types. The analysis has also identified the emissions savings in each country.

Over the 30 year appraisal period air pollution reduction benefits total 704 million Euro, equivalent to an average annual benefit of 23.5 million Euro.

The air pollution reduction benefits have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted air pollution reduction benefit over the 30 year appraisal period of 148 million Euros.

When splitting benefits between nations benefits have been allocated according to the country in which the emission reduction occurs (including an element to Poland). This leads to total discounted emissions saving over the 30 year appraisal period of 35 million Euro in Estonia, of 29 million Euro in Latvia and of 77 million Euro in Lithuania.

8.7.5.4 Climate change

There are also external costs associated with changes in greenhouse gas emissions which should be included in the economic analysis. The costs due to changes in the volume of CO₂ emitted are calculated according to equation below.

Figure 48 - Equation 4 CO₂ Emissions Impact Calculation

Passenger Car Emissions Impact = Rate of CO₂ emitted in kg per vehicle km x Change in vehicle kilometres x Cost per kg CO₂.

Freight Emissions Impact = Rate of CO₂ emitted in kg per Tonne km x Change in tonne kilometres x Cost per kg CO₂.

The EC Guide to Cost Benefit Analysis of Investment Projects provides estimates of monetary value of CO₂ emissions savings that have been identified by the IMPACT study. Central values have been adopted for this study.

Over the 30 year appraisal period CO₂ emission reduction benefits total 1,778 million Euro, equivalent to an average annual benefit of 59.3 million Euros

The CO₂ emission reduction benefits have been discounted to a 2010 base to take account of the fact that benefits and costs that occur in the future are valued less highly than those that occur in the shorter term. This results in a total discounted CO₂ emission reduction benefit over the 30 year appraisal period of 342 million Euros.

When splitting benefits between nations benefits have been allocated according to the country in which the emission reduction occurs (including an element to Poland). This leads to total discounted climate change saving over the 30 year appraisal period of 117 million Euro in Estonia, of 108 million Euro in Latvia and of 85 million Euro in Lithuania.

8.7.5.5 Social benefits from increased employment.

The project will generate jobs in two key ways:

- Direct job creation in the construction phase
- Direct job creation in the operation phase.

Estimates of the number of direct jobs that will be created have been made by considering the labour cost share of the construction cost and operating costs. These are discussed below.

Direct job creation in the construction phase

The total labour element of the construction cost has been determined for each nation. From this and the following key assumptions the number of Full Time Equivalent (FTE) jobs created has been calculated.

- Construction period 5 years (2020-2024)
- Working hours per day 8 hours
- Working days per year 253
- Labour costs per hour (based on average labour costs from three Baltic states for construction jobs) €6.19 per hour

Over the five year construction period 11,900 FTE jobs will be created (3,283 in Estonia, 4,199 in LV and 4,419 in Lithuania)

Direct job creation in the operation phase.

The labour element of the operating cost has been determined for passenger and freight services. . From this and the following key assumptions the number of Full Time Equivalent (FTE) jobs created has been calculated.

- Working hours per day 8 hours
- Working days per year 253
- Labour costs per hour (based on average labour costs from three Baltic states for transport, storage and communication jobs) €7.49per hour

From opening the passenger service creates 221 FTE jobs. As the number of freight services increased the number of FTE jobs created ranges from 110 on opening, 160 in 2030 to 244 in 2040.

8.7.6 Cost Benefit Analysis Parameter Assumptions

The assumptions for the parameters to be used in the analysis of the economic and financial performance of the scheme are discussed in Table 114.

Table 114 - CBA Parameters

Input	Source	Application in the Cost Benefit Analysis
Capital Costs	Capital costs are calculated by applying specified quantity unit cost rates per km for land and track; and, specific infrastructure costs (such as tunnels, bridges, stations, intermodal facilities and passing loops), as specified calculated from local experience.	Unit rates are: - Land (Forest €30000 per km, Field €26000 per km, Marsh €15000 per km) - New Rail track excluding bridges €3m-€4m per km Additional costs calculated as a percentage of construction costs: - Planning and Design costs 3% - Contingency 10% - Project Management 1.0% - Site Supervision 0.1% VAT (at ES:20%, LV:22%, LT:21%) is excluded from all costs in economic appraisal. Labour element of capital costs are adjusted for the economic appraisal by applying an adjustment factors to take account of social taxes. Capital cost spend profile is specified across a 13 year implementation period (2012-2024).
Residual value		Value at end of 30yr appraisal (2054):30% of construction cost for standard rail infrastructure, 50% of construction cost for major infrastructure such as bridges and stations and 30% of land costs.
Accident rate (Scheme and DM)	(Accident rates calculated from 2000 Latvian Eurostat data)	Accident rates for Fatal, Serious and Slight Injuries are included within CBA assessment and applied to each modelled year by road classification. Accident rates are assumed to decline at a rate of 1% per annum throughout the 30 appraisal period. Accident rates as presented as $10^{-6}/v/km$, non-motorway accident rates are: 2020: Fatal (F) 0.063, Serious Injury (SI) 0.118, Slight Injury (SLI) 0.470 2030: F 0.057, SI 0.106, SLI 0.425 2040: F 0.052, SI 0.096, SLI 0.385
Value of Time (by traffic class)	HEATCO (Developing Harmonised European Approaches for Transport Costing and Project	Value of rail business passenger time is given in HEATCO for each of the Baltic countries in 2002 prices. These values have been rebased to 2010 values and prices using Eurostat EU HICP data and GDP elasticity of 0.7.

Input	Source	Application in the Cost Benefit Analysis																								
	Assessment) identified in Guide to Cost Benefit Analysis of Investment Projects, EC 2008	An average value has then been calculated. Value of rail non-business passenger time has been estimated as 30% of business value in line with range in EC Guidance. Value of freight time given in HEATCO in € per tonne hour in 2002 prices. These values have been rebased to 2010 values and prices using Eurostat EU HICP data and GDP elasticity of 0.7. All VOT values are adjusted over the appraisal period on the basis of elasticity to growth of GDP/capita of 0.7, as specified in HEATCO . <table><tr><th></th><th colspan="2">Passenger</th><th>Freight</th></tr><tr><th></th><th>business</th><th>non-business</th><th></th></tr><tr><th></th><th colspan="2">€₂₀₁₀ per passenger hour</th><th>€₂₀₁₀ per tonne hour</th></tr><tr><td>2020</td><td>26.11</td><td>7.83</td><td>1.34</td></tr><tr><td>2030</td><td>30.54</td><td>9.16</td><td>1.57</td></tr><tr><td>2040</td><td>35.73</td><td>10.72</td><td>1.84</td></tr></table>		Passenger		Freight		business	non-business			€ ₂₀₁₀ per passenger hour		€ ₂₀₁₀ per tonne hour	2020	26.11	7.83	1.34	2030	30.54	9.16	1.57	2040	35.73	10.72	1.84
	Passenger		Freight																							
	business	non-business																								
	€ ₂₀₁₀ per passenger hour		€ ₂₀₁₀ per tonne hour																							
2020	26.11	7.83	1.34																							
2030	30.54	9.16	1.57																							
2040	35.73	10.72	1.84																							
Values of accidents	HEATCO (Developing Harmonised European Approaches for Transport Costing and Project Assessment) identified in Guide to Cost Benefit Analysis of Investment Projects, EC 2008	Accident severity cost values are given for Baltic counties in HEATCO in 2002 prices. These values have been rebased to 2010 values and prices using Eurostat EU HICP data and GDP elasticity of 0.7. Accident severity cost values are adjusted over the appraisal period on the basis of elasticity to growth of GDP/capita of 0.7, as specified in EC guidance. <table><tr><th></th><th>Fatal</th><th>Severe Injury</th><th>Slight Injury</th></tr><tr><th></th><th colspan="3">€₂₀₁₀,000 per occurrence</th></tr><tr><td>2020</td><td>1,047</td><td>142</td><td>10.2</td></tr><tr><td>2030</td><td>25</td><td>7.6</td><td>1.6</td></tr><tr><td>2040</td><td>30</td><td>8.9</td><td>1.8</td></tr></table>		Fatal	Severe Injury	Slight Injury		€ ₂₀₁₀ ,000 per occurrence			2020	1,047	142	10.2	2030	25	7.6	1.6	2040	30	8.9	1.8				
	Fatal	Severe Injury	Slight Injury																							
	€ ₂₀₁₀ ,000 per occurrence																									
2020	1,047	142	10.2																							
2030	25	7.6	1.6																							
2040	30	8.9	1.8																							
Values of environmental impacts: Air pollution	Cost rates extracted from HEATCO (Developing Harmonised European Approaches for Transport Costing and Project Assessment)	Air quality impacts are calculated within the CBA assment by applying the following equations based on the traffic volumes and average modelled speed. Light Vehicle CO: e = 123.89 . V-0.5383 NO₂: e = -1E6 . V³ + 0.0006V² – 0.0373V + 2.0389 SO₂: e = 0.3293.V-0.3776 PM_{2.5}: e = 1.6369.V-0.93 Heavy Vehicle CO: e = 257.77 . V-1.0217 NO₂: e = 54.386.V-0.3871 SO₂: e = 10.37.V-0.5569																								

Input	Source	Application in the Cost Benefit Analysis																								
		PM_{2.5}: $e = 4.2296V - 0.7508$ Where: e is emission in g/km V is travel speed in km/h 2010 Cost Rates: extracted from HEATCO, rebased to 2010 values and prices using Eurostat EU HICP data and GDP elasticity of 0.7. <table><tr><th>€₂₀₁₀ per kg</th><th>Estonia</th><th>Latvia</th><th>Lithuania</th></tr><tr><td>Health damage cost PM_{2.5}</td><td>41.31</td><td>39.78</td><td>48.96</td></tr><tr><td>Health damage cost SO₂</td><td>1.84</td><td>2.14</td><td>2.75</td></tr><tr><td>Health damage cost NO₂</td><td>2.14</td><td>2.75</td><td>3.18</td></tr><tr><td>Health damage cost VOC</td><td>0.76</td><td>0.76</td><td>0.76</td></tr><tr><td>Health damage cost CO</td><td>0</td><td>0</td><td>0</td></tr></table>	€ ₂₀₁₀ per kg	Estonia	Latvia	Lithuania	Health damage cost PM_{2.5}	41.31	39.78	48.96	Health damage cost SO₂	1.84	2.14	2.75	Health damage cost NO₂	2.14	2.75	3.18	Health damage cost VOC	0.76	0.76	0.76	Health damage cost CO	0	0	0
€ ₂₀₁₀ per kg	Estonia	Latvia	Lithuania																							
Health damage cost PM_{2.5}	41.31	39.78	48.96																							
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Health damage cost VOC	0.76	0.76	0.76																							
Health damage cost CO	0	0	0																							
Values of environmental impacts: Climate change	Cost per tonne CO ₂ emitted (IMPACT recommended values) identified in Guide to Cost Benefit Analysis of Investment Projects, EC 2008 Consultants calculation of Tonnes CO ₂ emitted per vehicle km	Climate change cost rates calculated and interpolated between established values. <table><tr><th>IMPACT recommended Values</th><th>2020</th><th>2030</th><th>2040</th><th>2050</th></tr><tr><td>€/tonne CO₂</td><td>40</td><td>55</td><td>70</td><td>85</td></tr></table> Climate cost rates applied to vehicle kilometres travelled in the complete Transport Model for the WP and WOP scenarios throughout the appraisal period. Emission rates: <table><tr><td>kg CO₂ emitted per vehicle km</td><td>0.127</td></tr><tr><td>kg CO₂ emitted per Freight Tonne km</td><td>0.124</td></tr></table>	IMPACT recommended Values	2020	2030	2040	2050	€/tonne CO ₂	40	55	70	85	kg CO ₂ emitted per vehicle km	0.127	kg CO ₂ emitted per Freight Tonne km	0.124										
IMPACT recommended Values	2020	2030	2040	2050																						
€/tonne CO ₂	40	55	70	85																						
kg CO ₂ emitted per vehicle km	0.127																									
kg CO ₂ emitted per Freight Tonne km	0.124																									
Traffic forecasts	Traffic forecast based on the GDP and population growth assumptions outlined in Economic Development Study	GDP growth forecasts are applied to create the forecast matrices for the transport model assessment. Within the CBA analysis GDP growth per head is applied to calculate forecast rates and costs for value of time, accident costs etc.																								
Conversion factors from market to economic prices	Guide to Cost Benefit Analysis of Investment Projects, EC 2008	Discount rate 5.5% applied to convert market prices to economic price base year of 2010.																								

8.7.7 Economic Performance Indicators

The project brings economic benefits such as, reducing travel time, generating revenue whilst improving traffic safety and road emissions. The Economic Cost Benefit uses discounted cash flow techniques to take account of the fact that benefits and costs that occur further into the future are valued less highly than those that occur in the short term. The positive impact of the project

is measured by the economic indicators of the **Net Present Value (NPV)** of the project, which is the sum of the net benefits of the project discounted using the given rate to base year (2010) values, and in terms of the **Economic Rate of Return (EIRR)**, which is the discount rate which gives a Net Present Value of zero.

National Governments and international bodies such as the European Union set certain standards for the EIRR of transport infrastructure projects: as a benchmark the EIRR of rail projects sponsored by the EU during the previous programming period was 11.6%. A summary of the economic results for the Rail Baltica preferred option is shown in Table 115.

Table 115 - Rail Baltica Preferred Option Economic Appraisal Table

Economic Impact (€000,000)	Un-discounted Cost or Benefit	Discounted Cost or Benefit	Share in Total Costs/ Benefits
Cost to Infrastructure Manager/Government			
Capital / Investment Costs	3,496	1,886	103%
Residual Value	-1,238	-117	-6%
Maintenance Costs	353	61	3%
Benefit to Manager			
Track access charges	2,508	521	16%
Passenger	744	170	
Freight	1,764	351	
Benefit to Operator			
Passenger Operator			
Operating costs (including track access charges)	-1,626	-372	-12%
Revenues	2,842	605	19%
Freight Operator			
Operating costs (including track access charges)	-3,440	-685	-21%
Revenues	5,429	1,142	36%
Benefit to Users			
Value of Time Savings		1,158	36%
Passenger	1,627	340	
Freight	4,150	818	
External Impacts			
On Safety (Accidents)	1,652	338	11%
Air Pollution	704	148	5%
Climate Change	1,778	342	11%
Total Costs		1,629	
Total Benefits		3,198	
Net Present Value (NPV)		1,368	
EIRR		9.3%	
Benefit/Cost Ratio		1.75	

The analysis shows that, under the assumptions made for the project, the key indicators for the Rail Baltica project are positive. With a discount rate of 5.5%, there is a positive NPV of €1,368m, at 2010 prices, and a benefit cost ratio of 1.75. The corresponding EIRR is 9.3%.

8.7.8 Country Specific Economic Performance Indicators

The elements of the total costs and benefits that are experienced by each nation have been isolated. This allows the CBA to be run for each individual Baltic nation. It should be noted however, that the benefits allocated to each country will only be generated if the whole scheme is implemented.

To breakdown the CBA to a national level the costs and benefits have been split across the states. This allocation has been based on either allocating benefits to the country in which they occur, such as accident savings and emissions reductions; or, allocating them to the country from which the trip originated or was destined, such as journey time savings. Details of how costs and benefits have been split are given below.

Capital Investment Costs – calculated for each nation by considering the length of track and specific land type and infrastructure elements required within each country. This means the cost per km of track varies with countries that contain a greater number of crossings and infrastructure experiencing a greater average cost per km.

Maintenance Costs – calculated for each nation by considering the share of the track length within each country. This means the maintenance cost per km of track is constant across the countries; however, the total cost varies due to differing track lengths within each country.

Operating Costs - Calculated for each nation by considering the share of the total annual train- km within each country. For Passenger services, which run from Warsaw to Tallinn the share of train-km is the same as the share of track km. however, for freight services, as service patterns vary with differing numbers of services on different sections of track the share of train-km is not the same as the share of track km.

Track Access Charges – Calculated for each nation by considering the share of the total annual train- km within each country. For Passenger services, which run from Warsaw to Tallinn the share of train-km is the same as the share of track km. however, for freight services, as service patterns vary with differing numbers of services on different sections of track the share of train-km is not the same as the share of track km.

Revenue – Calculated for each nation by considering the share of the total annual train- km within each country. For Passenger services, which run from Warsaw to Tallinn the share of train-km is the same as the share of track km. however, for freight services, as service patterns vary with differing numbers of services on different sections of track the share of train-km is not the same as the share of track km.

Passenger Time Savings – Calculated on a matrix level, therefore benefits have been allocated to each nation based on the origin and destination of each trip. Benefits associated with trips internal to a country have been entirely allocated against that nation, whilst the benefits associated with international trips have been split equally between the origin and destination nations. This means the benefits are higher for countries with large volumes of internal trips, and for countries where there are key trip attractors.

Freight Time Savings – Calculated on a network basis. Journey time savings have been allocated to the country in which they occur. This means that the journey time saving for a freight trip from Estonia to Lithuania will be split between all three nations depending upon the difference between the 'with project' and 'without project' times on the stretches of the route within each country.

External impacts, such as accidents and emissions benefits have been allocated to the nation where the reduction in accidents or emissions occurs.

Job Creation - Over the five year construction period 11,900 FTE jobs will be created (3,283 in Estonia, 4,199 in LV and 4,419 in Lithuania). From opening the passenger service creates 221 FTE jobs. As the number of freight services increased the number of FTE jobs created ranges from 110 on opening, 160 in 2030 to 244 in 2040. The impact of direct job creation has not been

explicitly included in the CBA analysis. The EC guidance indicates that job creation benefits should not be included explicitly as they are already accounted for in the adjustment to shadow prices (conversion factors).

The allocation of benefits and costs to nations means that there are elements of the whole scheme benefits and costs which are allocated to nations outside the Baltic region; these include revenue, operating costs and track access charges from the Lithuanian border to Warsaw and elements of the time savings for trips originating or destined outside the Baltic states (e.g. trips to/from Poland). In summary the benefits and costs allocated to nations outside the Baltic region include:

- Track access charges paid by Rail Baltica passenger and freight operators to the Polish rail manager for use of the stretch of track from Polish/Lithuanian border to Warsaw
- Operating costs, paid by Rail Baltica operators, of passenger and freight services on the stretch of track from Polish/Lithuanian border to Warsaw
- Revenues paid by passenger and freight customers to Rail Baltica operators for the stretch of track from Polish/Lithuanian border to Warsaw
- An element of the travel time savings experienced by users who have either an origin or destination outside the three Baltic states
- Accident benefits generated on Polish Road network due to shift of car and freight users from road to Rail Baltica on the stretch of track from Polish/Lithuanian border to Warsaw
- Emissions benefits generated on Polish Road network due to shift of car and freight users from road to Rail Baltica on the stretch of track from Polish/Lithuanian border to Warsaw

Table 116, Table 117 and Table 118 below show the economic performance indicators of the Rail Baltica preferred option for each nation.

Table 116 - Rail Baltica Preferred Option Economic Appraisal Table - Estonia

Economic Impact (€000,000 discounted)	Cost or Benefit Un-discounted	Cost or Benefit Discounted	Discounted Cost or Benefit (per km of track)	Commentary
Cost to Infrastructure Manager/Government				
Capital / Investment Costs	1,031	565	2.47	Construction cost per km: 4,100,000 Euro/km This is lowest of the three nations due to smaller number of infrastructure elements required (e.g. bridges etc.) Land cost per km: 470,000 Euro/km This is highest of the three nations due higher cost and amount of urban land required to purchase in Estonia
Residual Value	-354	-34	-0.15	
Maintenance Costs	111	19	0.08	Maintenance cost per km of track is the same for all countries
Benefit to Manager				
Track access charges	521	108	0.47	Track access charge per train-km is the same for all countries
Passenger	155	35	0.15	
Freight	367	73	0.32	
Benefit to Operator				
Passenger Operator Operating costs (including track access charges)	-338	-77	-0.34	Operating cost per train-km is the same for all countries
Revenues	609	129	0.56	Optimum fares are lower on Rail Baltica north of Riga than south of Riga, leading to a slightly lower average revenue per km of track than in other countries
Freight Operator Operating costs (including track access charges)	-715	-142	-0.62	Operating cost per train-km is the same for all countries
Revenues	1,686	353	1.54	Revenues per km of track are higher than in other countries due to a larger domestic market
Benefit to Users				
Value of Time Savings		397	1.73	
Passenger	652	135	0.59	Value of passenger time savings in Estonia are higher as the new line provides a large journey time saving to passengers travelling between Pärnu and Tallinn, which are entirely allocated to Estonia
Freight	1,337	262	1.14	Freight time savings per km of track are higher than in other countries due to a larger domestic market
External Impacts				

Economic Impact (€,000,000 discounted)	Cost or Benefit Un-discounted	Cost or Benefit Discounted	Discounted Cost or Benefit (per km of track)	Commentary
On Safety (Accidents)	572	116	0.51	Over the 30 year appraisal period in Estonia 2,254 accidents are expected to be avoided, (leading to a reduction of fatalities of 296, a reduction of severe injuries of 548 and a reduction of light injuries of 2,193). Benefits are slightly higher than in other countries as reduction in road vehicle km is greater. This is predominantly due to larger removal of trucks from the road. Benefits are slightly higher than in other countries as reduction in road vehicle km is greater. This is predominantly due to larger removal of trucks from the road. Benefits are slightly higher than in other countries as reduction in road vehicle km is greater. This is predominantly due to larger removal of trucks from the road.
Air Pollution	172	35	0.15	
Climate Change	614	117	0.51	
Total Costs		550	2.41	
Total Benefits		1,034	4.52	
Net Present Value (NPV)	484			
EIRR	9.7%			
Benefit/Cost Ratio	1.88			

Table 117 - Rail Baltica Preferred Option Economic Appraisal Table – Latvia

Economic Impact (€000,000 discounted)	Cost or Benefit Un-discounted	Cost or Benefit Discounted	Discounted Cost or Benefit (per km of track)	Commentary
Cost to Infrastructure Manager/Government				
Capital / Investment Costs	1,207	648	2.76	Construction cost per km: 5,700,000 Euro/km This is highest of the three nations due to a larger number of infrastructure elements required (e.g. the bridge over the Daugava.) Land cost per km: 120,000 Euro/km This is middle value of the three nations due to lower cost and amount of urban land required to purchase than in Estonia, but higher amount of urban land required to purchase than in Lithuania
Residual Value	-449	-43	-0.18	
Maintenance Costs	114	20	0.08	Maintenance cost per km of track is the same for all countries
Benefit to Manager				
Track access charges	535	111	0.47	Track access charge per train-km is the same for all countries
Passenger	159	36	0.15	
Freight	377	75	0.32	
Benefit to Operator				
Passenger Operator Operating costs (including track access charges)	-347	-79	-0.34	Operating cost per train-km is the same for all countries
Revenues	761	160	0.68	Optimum fares are lower on Rail Baltica north of Riga than south of Riga, leading to a slightly lower average revenue per km of track than in Lithuania, but a higher revenue per km of track than in Estonia
Freight Operator Operating costs (including track access charges)	-734	-146	-0.62	Operating cost per train-km is the same for all countries
Revenues	1,618	339	1.44	Revenues per km of track are lower than in Estonia due to a smaller domestic market;
Benefit to Users				
Value of Time Savings		340	1.45	
Passenger	427	88	0.38	Passenger journey time savings are mid value of the three nations. It should be noted, however, that the time savings are all generated from international movements (as there is only one station in Latvia) which mean benefits have been shared between origin and destination countries.
Freight	1,282	252	1.07	Freight time savings are lower than in Estonia due to a smaller domestic market

Economic Impact (€000,000 discounted)	Cost or Benefit Un-discounted	Cost or Benefit Discounted	Discounted Cost or Benefit (per km of track)	Commentary
External Impacts				
On Safety (Accidents)	514	105	0.44	Over the 30 year appraisal period in Latvia 2,028 accidents are expected to be avoided, (leading to a reduction of fatalities of 266, a reduction of severe injuries of 493 and a reduction of light injuries of 1,973). Benefits are slightly higher than in Lithuania and slightly lower than in Estonia as reduction in road vehicle km is greater in Estonia, and less in Lithuania. This is predominantly due to larger removal of trucks from the road in Estonia Benefits are slightly lower than in other countries as reduction in road vehicle km is greater in Estonia which is predominantly due to larger removal of trucks from the road; and the reduction in road km in Lithuania has come from mainly fast moving roads with higher emissions per vehicle. Benefits are slightly higher than in Lithuania and slightly lower than in Estonia as reduction in road vehicle km is greater in Estonia, and less in Lithuania. This is predominantly due to larger removal of trucks from the road in Estonia
Air Pollution	142	29	0.13	
Climate Change	565	108	0.46	
Total Costs		625	2.66	
Total Benefits		967	4.11	
Net Present Value (NPV)	342			
EIRR	8.4%			
Benefit/Cost Ratio	1.55			

Table 118 - Rail Baltica Preferred Option Economic Appraisal Table - Lithuania

Economic Impact (€000,000 discounted)	Cost or Benefit Un-discounted	Cost or Benefit Discounted	Discounted Cost or Benefit (per km of track)	Commentary
Cost to Infrastructure Manager/Government				
Capital / Investment Costs	1,258	674	2.55	Construction cost per km: 4,800,000 Euro/km This is mid value of the three nations. Land cost per km: 56,000 Euro/km This is lowest of the three nations due higher cost and amount of urban land required to purchase in Estonia and Latvia
Residual Value	-435	-41	-0.16	
Maintenance Costs	128	22	0.08	Maintenance cost per km of track is the same for all countries
Benefit to Manager				
Track access charges	601	125	0.47	Track access charge per train-km is the same for all countries
<i>Passenger</i>	178	41	0.15	
<i>Freight</i>	423	84	0.32	
Benefit to Operator				
Passenger Operator Operating costs (including track access charges)	-390	-89	-0.34	Operating cost per train-km is the same for all countries
Revenues	1,016	215	0.81	Optimum fares are higher on Rail Baltica south of Riga than north of Riga, leading to a slightly higher average revenue per km of track than in the other countries
Freight Operator Operating costs (including track access charges)	-825	-164	-0.62	Operating cost per train-km is the same for all countries
Revenues	1,514	322	1.22	Revenues per km of track are lower than in Estonia and Latvia as the share of the domestic market is slightly smaller than in Estonia and volumes of freight on the Warsaw -Kaunas section are lower than the other route sections
Benefit to Users				
Value of Time Savings		284	1.08	
<i>Passenger</i>	333	71	0.27	Passenger journey time savings are lower than in other countries as patronage south of Kaunas is lower than other sections of the route
<i>Freight</i>	1,073	213	0.81	Freight time savings are lower than in Estonia and Latvia as the volume of freight traffic on the Warsaw -Kaunas section is lower than the other route sections

Economic Impact (€000,000 discounted)	Cost or Benefit Un-discounted	Cost or Benefit Discounted	Discounted Cost or Benefit (per km of track)	Commentary
External Impacts				
On Safety (Accidents)	425	89	0.34	Over the 30 year appraisal period in Lithuania 1,719 accidents are expected to be avoided, (leading to a reduction of fatalities of 221, a reduction of severe injuries of 414 and a reduction of light injuries of 1,693). Benefits are slightly lower than in the other countries as the reduction in road vehicle km is lower in Lithuania. Benefits are higher than in other countries as the HEATCO health damage costs are higher for Lithuania and the reduction in road vehicle km in Lithuania has come from mainly fast moving roads with higher emissions per vehicle. Benefits are slightly lower than in other countries as reduction in road vehicle km is greater in Estonia and Latvia than in Lithuania.
Air Pollution	358	77	0.29	
Climate Change	438	85	0.32	
Total Costs		654	2.48	
Total Benefits		944	3.58	
Net Present Value (NPV)		289		
EIRR		7.9%		
Benefit/Cost Ratio		1.44		

Table 119 below summarises the costs and benefits for each nation. It shows that due to the differing infrastructure and user and operator benefits in each country the average cost and average benefits per km of track vary.

Table 119 - Total Discounted Benefit and Cost per km of Track.

	Estonia	Latvia	Lithuania	Whole
Total Discounted Cost per km	2.41	2.66	2.48	1.66
Total Discounted Benefit per km	4.52	4.11	3.58	2.90

Note: whole route includes stretch from Polish/Lithuanian Border to Warsaw

8.7.9 Risk Analysis

8.7.9.1 Methodology

The risk assessment methodology comprises 4 key steps:

1. Identify through sensitivity tests of the critical variables which have an impact on the performance of the proposed Rail Baltica option
2. Identify and allocate probability distributions to reflect uncertainty in future values of the critical variables
3. Undertake 10,000 simulation runs of the economic assessment calculation selecting values for the key variables in accordance with the uncertainty distributions.
4. Assess the variation in the resultant economic and financial indicator parameters leading to definition of P95 and P50 values (these are values which have a 95% and 50% chance of being exceeded respectively)

8.7.9.2 Sensitivity Tests

Key inputs in the CBA analysis are the sensitivity tests. These tests are designed to do two things:

- Indicate the stability in the assessment of NPV and EIRR in the event of changes to costs and benefits;
 - Identify which factors make the most difference to the economic assessment (the critical variables).
- The sensitivity tests will assess changes in amount and timing of investment costs; ongoing costs including operation and maintenance; the amount of benefit produced; and the monetary value of that benefit.

For the Rail Baltica options roads decongestion is not a major issue. Hence, the benefits of the improvements are proportional to the traffic flows. This means that it is a reasonable approximation to undertake sensitivity tests in the economic assessment spreadsheet without rerunning the traffic model.

The following sensitivity tests have been undertaken

- Sensitivity Test 1 Increase Investment Costs by 30%
- Sensitivity Test 2 Change of Investment Cost Profile
- Sensitivity Test 3 Change of Operation and Maintenance Cost
- Sensitivity Test 4 Reduce Total Demand Volumes by 30% (both Freight and Passenger Demand)
- Sensitivity Test 5 Reduce Freight Demand Volumes by 50%
- Sensitivity Test 6 Reduce Value of Time Savings by 40%
- Sensitivity Test 7 Reduce GDP Growth by 10%

Sensitivity Test 1 Increase Investment Costs by 30%

Investment costs include:

- Land;
- Construction;
 - Equipment
 - Materials
 - Labour
- Project management;
- Site supervision; and
- Publicity

Investment costs have been developed using unit rates per kilometre and identification of key infrastructure requirements such as road and river crossings. Construction costs are the largest element of investment costs by a considerable margin. Hence, this sensitivity test is essentially considering the impact if construction is more expensive than expected.

Table 120 - Results of Sensitivity Test 1

	NPV	EIRR
Base Case	1,368	9.3%
Increase Investment Costs by 30%	838	7.4%
Percentage Change	-39%	-20%

Sensitivity Test 2 Change of Investment Cost Profile

The Base Case assumes that the expenditure is spread throughout the construction period as shown earlier in Table 7.2 and that the Rail Baltica service opens immediately it is complete. This sensitivity test brings forward the costs (so that all costs occur in the first year) but leaves the opening date unchanged. This sensitivity test represents two effects. The first is that expenditure occurs earlier. The second is that there is a delay to scheme opening after costs have been incurred.

Table 121 - Results of Sensitivity Test 2

	NPV	EIRR
Base Case	1,368	9.3%
100% Construction Costs Occur in First Year (2020)	1,183	8.3%
Percentage Change	-14%	-11%

Sensitivity Test 3 Change of Operation and Maintenance Cost

The cost of maintenance is determined by the length of various standards of road. Some activities must be undertaken every year whilst some activities are undertaken periodically.

This test investigates the impact of increasing maintenance costs by 30%

Table 122 - Results of Sensitivity Test 3

	NPV	EIRR
Base Case	1,368	9.3%
Increase Operation and Maintenance Costs by 30%	1,190	8.8%
Percentage Change	-13%	-5%

Sensitivity Test 4 Reduce Total Demand Volumes by 30%

This test can represent two situations. First, it can represent a situation where scheme capture is reduced, that is more passenger and freight traffic remains on the existing modes. In this case, fewer people obtain the benefit as the remaining modes do not gain any reduction in cost. Secondly, it can represent a reduction in demand but the same capture rate.

Table 123 - Results of Sensitivity Test 4

	NPV	EIRR
Base Case	1,368	9.3%
Reduce Traffic Volume by 30%	248	6.3%
Percentage Change	-82%	-32%

Sensitivity Test 5 Reduce Freight Demand Volumes by 50%

This test can represent two situations. First, it can represent a situation where freight capture is reduced, that is more freight traffic remains on the existing modes. In this case, fewer people obtain the benefit as the remaining modes do not gain any reduction in cost. Secondly, it can represent a reduction in the overall market but the same capture rate.

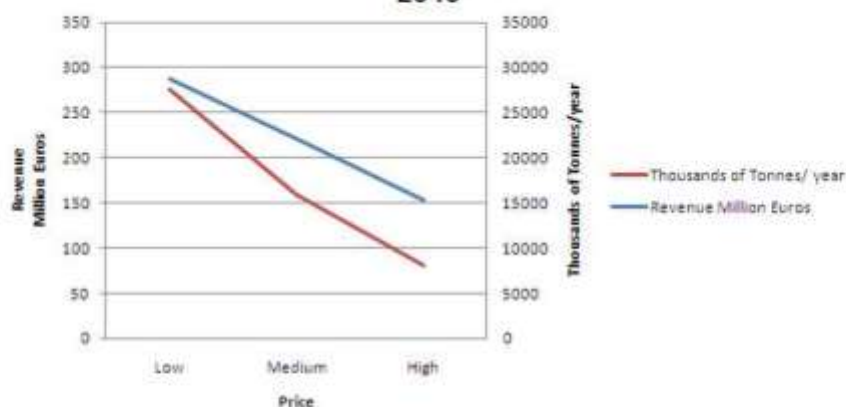
Table 124 - Results of Sensitivity Test 5

	NPV	EIRR
Base Case	1,368	9.3%
Reduce Freight Volume by 50%	28	5.6%
Percentage Change	-98%	-40%

Note: The research into the freight market took actual prices from the three different countries, Estonia, Latvia and Lithuania and averaged them with a low, medium and high price. A number of sensitivities were tested to ascertain the best feasible option, one of these involved adjusting the price of freight (page 156 final report volume 1). This shows that when prices are increased from medium to high, the volume of freight decreases by almost a half from 15.8 to 8.1 million tonnes. As a result revenue decreases from 222 million Euros in 2040 to 152 million Euros.

The graph below shows that once you go below the medium price the tonnes/year grows faster than the revenue, thus the revenue per tonne reduces. For prices above medium the tonnes/year decreases at the same rate as revenue and hence there is little point in investing beyond this level. Given that cost is directly proportional to the tonnes carried it is clear that below the medium price profit suffers where as above the medium price there is no increase in profit per tonne. Therefore selecting the medium price maximises the external benefits of shifting freight onto rail as well as maximising revenue against cost.

Revenue and Tonnes for different price structures in 2040



Sensitivity Test 6 Reduce Value of Time Savings by 40%

For the new rail Baltica Service the main economic benefit to users would be generated by the savings of travel time, related to the value of time. This test can also represent two situations. First it can represent the situation where the number of minutes saved, does not change but their valuation does change. However, the resulting benefits will be the same for the same proportional change in the number of minutes saved but an unchanged valuation.

Table 125 - Results of Sensitivity Test 6

	NPV	EIRR
Base Case	1,368	9.3%
Reduce Value of Time Savings by 40%	905	8.1%
Percentage Change	-34%	-12%

Sensitivity Test 7 Reduce GDP Growth by 10%

GDP affects the level of traffic demand which, in turn, has an effect on all types of benefits. It also has an effect on the valuation of benefits, particularly value of time. This test does not affect the Base Year but does affect growth beyond the Base Year. It has a progressively greater impact on the level of benefits as the assessment period progresses.

Table 126 - Results of Sensitivity Test 7

	NPV	EIRR
Base Case	1,368	9.3%
Reduce GDP Growth by 10%	258	6.1%
Percentage Change	-81%	-34%

8.7.9.3 Switching Values

These are the changes required in each of the variables to reduce the NPV to zero.

Table 127 - Switching Values

Variable	Percentage Change needed to reduce NPV to zero
Investment Cost	77%
Maintenance Cost	2254%
Operating Cost	167%
Traffic Volume	-43%
Value of Time	-118%

8.7.9.4 Risk Analysis

The sensitivity tests have each concentrated on one variable. There is no reason to believe that most of these variables are correlated; however, it is possible that some of them will be downside whilst others are upside at the same time. One approach to assess the impact of this would be to develop an upside scenario and a downside scenario using combinations of some of these variables. There are, however, two problems with the scenario analysis approach. First, there is no reliable way of assigning probabilities to the outcomes; secondly, the combination of variables takes no account of whether they are positively or negatively correlated or not correlated at all.

It is true that some variables are correlated, for example values of time and economic growth. Combining low economic growth and low value of time growth is legitimate and these are linked in the economic analysis spreadsheet. However, there is no reason to believe that a change in investment costs should influence traffic volumes. There is also the possibility that some variables will diverge from forecasts in a favourable direction while other changes are unfavourable. For this reason, we have conducted a risk analysis using @Risk. This uses a Monte Carlo simulation approach.

Risk Analysis addresses several of the weaknesses of the scenario approach.

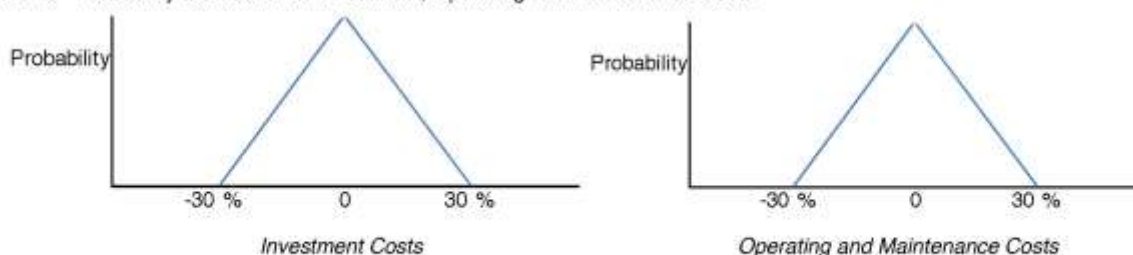
- First, it does produce probabilities of certain outcomes, and it does so with complete flexibility – any outcome can be assigned a probability.
- Secondly, variables which are correlated (or not) can be specified as such (indeed more complex dependency structures can also be specified).

Risk Distributions for Costs

Changes in the spend profile have only a small impact compared to changes in the total investment cost. Hence, it is the investment cost which is incorporated into the risk analysis. The maximum extent of the difference modelled is 30%. It is assumed that the cost may vary up or down by this amount. It is most likely that the actual cost will be close to the estimate, taking account of compensating errors. Hence, we are using a triangular distribution with the apex in the middle.

We are making a similar assumption for operation and maintenance costs. This is assumed not to be correlated with construction costs.

Figure 49 - Probability Distribution of Investment, Operating and Maintenance Costs



Risk Distributions for Benefits

There are normally two types of uncertainties in the assessment of benefits for New rail projects: patronage and freight capture from existing modes and growth. Capture is nearly always the most significant effect in the early years (a base year issue) with growth becoming progressively more significant (a forecasting years' issue).

Base year risks are those that are due to our imperfect understanding of the present situation. These risks may be due to statistical uncertainty in the surveys or variations in the speed of competing modes in the traffic model. These risks are static risks and will not change over time. These risks apply to the opening year although their effects will persist into the future.

The second major class of risk is forecast risk. This represents uncertainty in growth parameters. This type of risk includes factors such as GDP; we have greater confidence about the level of GDP next year than we are in 20 years time.

The risk in the early years of the project is dominated by the base year risk. The later years of the concession are dominated by the forecast risks.

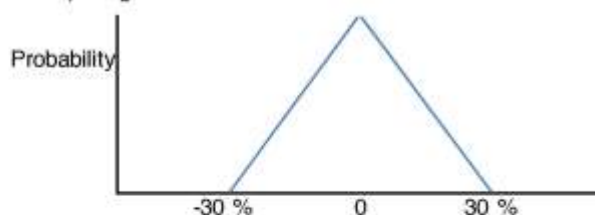
Base Year Risks

The base year risk can best be understood as the uncertainty there would be if the Rail Baltica service were in operation at this point in time. This removes any growth issues but does include:

- a. Existing levels of demand. Any error in this estimate will have a proportional impact on the benefits as there will be less passengers and freight volumes to benefit from the improvements.
- b. Pattern of origins and destinations. This can affect the assessment of the number of users who will transfer to the new service, and hence the number who will gain the benefit from it.
- c. Network speeds and capacities. The benefit achieved is partly determined from the saving in journey time. Hence, we must model the journey times on the new service and on the alternative modes. Any errors in the model will affect the assessment of the amount of time saved.
- d. Value of Time. This will affect the balance between time savings and costs differences in the choice of mode. It will also impact on the value put on the time savings.

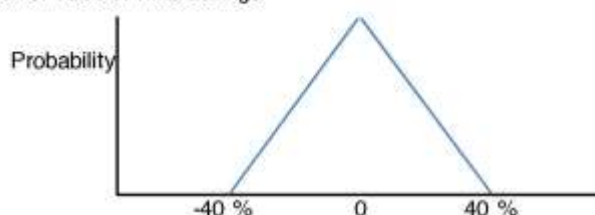
The first two of these risks (a, b) affect the amount of demand gaining the benefit. This is modelled as a triangular distribution with the apex in the middle. The maximum deviation is $\pm 30\%$.

Figure 50 - Probability Distribution of Opening Year Demand



The third risk (c) and the fourth risk (d) relate to the time saving benefit. One of them relates to the amount of time saved, while the other relates to the valuation of it. It is the product of these two variables which gives the overall benefit. Hence, a proportional change in one of them has exactly the same effect on the benefits as the same proportional change in the other. This is modelled as a triangular distribution with the apex in the middle. The maximum deviation is $\pm 40\%$.

Figure 51 - Probability Distribution of Value of Time Savings



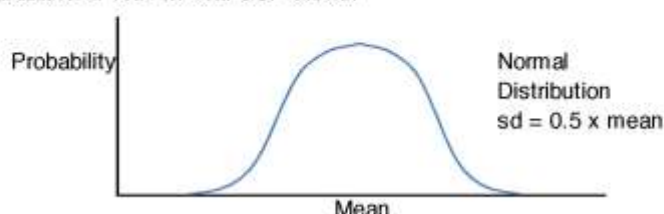
The potential errors described above do not necessarily imply a wide risk distribution in the base year. Lack of correlation in the variables will result in compensating errors.

Forecast Year Risks

The key driver of growth is GDP. If GDP differs from its forecast levels then demand growth will also be different. GDP growth may be higher than forecast in some years but lower in others. There is considerable variation in the short term to GDP growth but long term average growth levels tend to hold.

To represent this uncertainty in the GDP growth we use a normally distributed random variable for GDP growth with a mean value equal to the most recent GDP growth forecast and a standard deviation of half of the forecast growth. There is no correlation between years. The effect of this is that the absolute variability in the growth increases each year, but the relative variability (compared to the total growth) reduces over time.

Figure 52 - Probability Distribution of Year-on-Year GDP Growth



Value of time is closely tied with GDP growth. The GDP and value of time effects are already linked in the economic appraisal spreadsheet and no further adjustment is required.

8.7.9.5 Risk Analysis Results

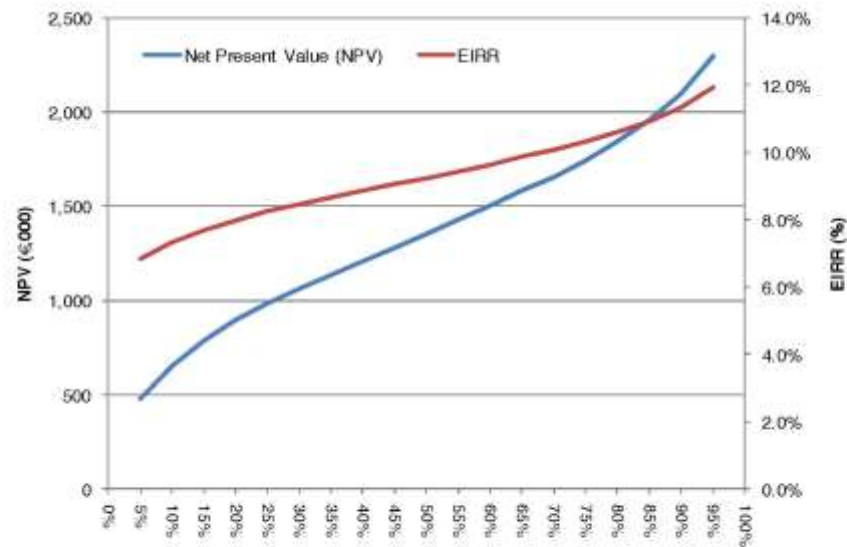
All these factors are then combined to produce an alternative NPV and EIRR. This process is undertaken 100,000 times to provide a distribution of results.

Table 128 - Risk Analysis Results

Name	Net Present Value (NPV)	EIRR
Model Value	1,368	9.3%
Minimum	-351	4.5%
Mean	1,368	9.3%
Maximum	3,370	15.5%
Std Deviation	551	1.5%
5% Percentile	476	6.8%
10% Percentile	649	7.3%
15% Percentile	788	7.7%
20% Percentile	893	8.0%
25% Percentile	982	8.2%
30% Percentile	1,062	8.5%
35% Percentile	1,138	8.7%
40% Percentile	1,208	8.9%
45% Percentile	1,281	9.1%
50% Percentile	1,353	9.2%
55% Percentile	1,427	9.4%
60% Percentile	1,504	9.6%
65% Percentile	1,581	9.9%
70% Percentile	1,654	10.1%
75% Percentile	1,741	10.3%
80% Percentile	1,845	10.6%
85% Percentile	1,959	10.9%
90% Percentile	2,094	11.3%
95% Percentile	2,297	11.9%

The quantitative risk analysis has considered the impacts on the economic performance of the project (in terms of NPV and EIRR) that result from uncertainty in the underlying analysis assumptions. This captures the risk associated with differences between the predicted value and out-turn value of economic growth, demand forecasts and cost estimates. It should be noted, however, that there are additional implementation risks that surround the project organisational arrangements. These issues are identified in the risk register and discussed in section 10.8. It is, however, difficult to quantify the financial impact on project performance indicators and to allocate probability distributions to these risks. The quantitative risk assessment therefore excludes the impact of these risks.

Figure 53 - NPV and EIRR



The mean value of the distribution for NPV and EIRR matches the model value reflecting the fact that the uncertainty distributions of the input variables are symmetrical. The median (50th percentile) is slightly lower than the model value indicating some skewness in the output distribution. The percentiles for the NPV distribution demonstrate that less than 5% of the distribution is below zero. There is therefore a more than 95% chance that the NPV will be positive.

8.8 Financial Analysis

8.8.1 Introduction.

This section discusses the financial analysis and how it considers the financial impacts of transactions that affect the financial flows for the project owner/operator. Financial analysis values all quantities according to their financial cost, or revenue, as they accrue to the project's owner and operator. This is in contrast to the economic cost benefit analysis which aims to assess the value for money of projects from the viewpoint of wider society and contains differing costs and benefits.

The nature of the construction and operation of Rail Baltica mean that there are two sets of stakeholders, from whose viewpoint the financial analysis needs to be undertaken. These are:

- **The Rail Manager**, who constructs and maintains the rail line, these costs are offset to some extent by the track access charges paid by the operators
- **The Passenger and Freight Service Operators** who operate the services whose costs include maintenance of the train fleet and payment of access charges to the rail manager in exchange for the opportunity to run services on the track. These costs are offset to some extent by the revenue paid by the passengers and hauliers who use the service.

A summary of the main costs and benefits associated with the Rail Baltica option, and their treatment in the financial analysis, are shown in Table below.

Table 129 - Financial Analysis Costs and Benefits

Source of Cost / Benefit	Economic Cost Benefit Analysis	Source
Rail Manager		
Capital Cost	Cost of all elements of infrastructure including design and planning, land, construction, supervision and contingency	Valued Net of VAT on materials
Maintenance Cost	All ongoing costs of maintaining the infrastructure during the appraisal period	
Track Access Charges	Charge paid by the passenger and freight operators to the manager for use of infrastructure	Based on EC document 2010/0253(COD) See section 8.7.3.2 above
Residual Value of the Project	Value of infrastructure at the end of the appraisal period.	Valued at a fraction of the construction cost depending upon the scale of the infrastructure.
Rail Operators		
Operating and Maintenance Costs	Costs of operating and maintaining the freight and passenger services, includes an element to pay track access charge to manager	Valued net of VAT on materials
Revenues	Revenues generated over the appraisal period from fares paid by passengers and hauliers	Valued net of VAT as these cash flows are passed from users to authority.
Transport Users and External Effects		
Travellers Time Savings	Not included in financial analysis as there is no direct income to the project owner from these sources	
Accident Savings		
Benefits From Reduced Emissions		

In the financial analysis VAT has been excluded from passenger and freight revenue cash flows as these elements of the charges paid by users are passed directly from the operator to the government and therefore are not considered a cash in-flow. VAT has also been excluded from capital costs because the project is revenue generating; similarly, VAT is also excluded from operating and maintenance costs as the manager and operators will be able to reclaim any VAT spent.

8.8.2 Assumptions, Values and Methodology

The financial analysis has been undertaken following the methodology outlined in the EC Guide to Cost Benefit Analysis of Investment Projects – Structural Funds, Cohesion Fund and Instrument for Pre Accession – Final Report/ 16th June 2008 (European Commission Directorate General Regional Policy)

The following stages in the analysis are identified in the EC guidance:

1. Assessment of total investment costs
2. Assessment of operating costs and revenues
3. Calculation of financial return on investment cost (FNPV(C) and FRR(C))
4. Identification of sources of funding, including calculation of EC grant
5. Calculation of financial return on national capital (i.e. the element of the investment cost funded by the member nation (FNPV(K) and FRR(K))
6. Assessment of financial stability

The Financial analysis was prepared by the incremental method, which calculates the difference in the value of the financial parameters of the 'without project' and 'with project' alternatives. In the case of the Rail Baltica scheme, the 'without project' scenario includes the existing bus, rail and highway networks and foreseeable modernisation plans and future projects.

The 'with project' is identical to the 'without project' option in all respects except it includes the proposed Rail Baltica Option 1 service providing a higher speed rail link along the Warsaw to Tallinn corridor. This enables the effect of Rail Baltica to be isolated from all other projects.

Financial projections are calculated in real prices on a base of 2010, in Euro. In accordance with EC guidance a discount value of 5.0% is used with an appraisal period covering 30 years post opening:

- Investment period (13 years): 2012 – 2024;
- Operational period (30 years): 2025 – 2054.

The 30 years appraisal period, recommended for rail projects, is applied after opening as it related to the project lifetime.

8.8.3 Investment Costs

The investment costs for the project are discussed in detail in section 8.7. Table below summarises the capital cost estimate for Rail Baltica Option 1.

Table 130 - Capital Costs

Cost Component	Total Cost	Spend Profile													
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Planning and Design	102	5%	5%	5%	5%	20%	20%	20%	20%						
Land	149					25%	25%	25%	25%						
Construction Costs	3,390									20%	20%	20%	20%	20%	
Project Management	34	3%	3%	3%	3%	10%	10%	10%	10%	10%	10%	10%	10%	10%	
Site Supervision	3									20%	20%	20%	20%	20%	
VAT	744	0.2%	0.2%	0.2%	0.2%	0.7%	0.7%	0.7%	0.7%	19%	19%	19%	19%	19%	
TOTAL CAPITAL COSTS	4,422	0.2%	0.2%	0.2%	0.2%	1.5%	1.5%	1.5%	1.5%	19%	19%	19%	19%	19%	

The investment cost included in the financial analysis excludes VAT. The residual value of the asset is determined at the end of the forecast period as the difference between the initial investment value and the depreciation accumulated up till that moment in time. The transport infrastructure (track, bridges) have an average set life of 50-60 years; consequently in a horizon period of 30 years a 30% residual asset value has been allowed for standard rail infrastructure, 50% of construction cost for major infrastructure such as bridges and stations and 30% of land costs.

8.8.4 Operating costs and revenues

The **operating costs** include purchase of all goods and services which are not of an investment nature as they are consumed within the appraisal period and are expected to start from the first year of operation, 2025; this includes:

For the Rail Manager:

- Maintenance of the rail track and infrastructure post opening.

For the Rail Operators:

- Payment of the track access charge to the train manager for use of the rail infrastructure; and
- Costs associated with operation of passenger and freight services including:
 - Staff wages;
 - Rolling stock lease and maintenance;
 - Fuel; and
 - Overheads and other direct costs

The **revenue** is the cash inflow during the appraisal period; this includes:

For the Rail Manager

- Track access charge paid by the rail operators for use of the rail line.

For the Rail Operators

- Payment of passenger fares by users of passenger service; and
- Payment of freight haulage charges by users of freight service.

Details of the calculation of operating and maintenance costs and passenger and freight revenue are discussed in detail in section 8.7.

In the financial analysis identifiable fiscal transfer payments should be eliminated from the project cash flow. The net revenue and operating cost flows for each year of analysis have therefore been adjusted by removing VAT.

8.8.5 Calculation of Financial Return on Investment Cost

The financial projections have been made based on conditions and assumptions explained above.

The data on investment costs and operating costs has been used to evaluate the financial return on the investment. The indicators needed for testing the project's financial performance are:

- Financial Net Present Value of the project (FNPV);
- Financial Internal Rate of Return (FRR);

Initially the financial return on the **total investment cost** has been calculated. This excludes the impact of any EU funding. FNPV/C and FRR/C have been calculated in accordance with method set out in the EC Guide to Cost Benefit Analysis of Investment Projects.

The financial analysis for the investment, without EU funding from the view point of the train manager, the train operator and the project as a whole is shown in Table 130.

Table 131 - Financial Indicators of the Investment - Without EU Funding

Indicator	Total (€ million)				Consolidated
	To Rail Manager	Total	To Rail Operator Freight	Passenger	
<i>Investment Cost excluding EU Grant</i>	3,678				3,678
<i>Maintenance</i>	353				353
<i>Residual Asset Value</i>	-1,569				-1,569
<i>Operating Costs</i>		2,559	1,676	882	2,559
<i>Track Access Charges</i>		2,508	1,764	744	2,508
Total Outflows	2,463	5,066	3,440	1,626	7,529
<i>Track Access Charges</i>	2,508				2,508
<i>Revenues</i>		8,270	5,429	2,842	8,270
Total Inflows	1,365	8,270	5,429	2,842	10,778
Net Cash Flows	45	3,204	1,988	1,216	3,249
Net Cash Flows (discounted)	-1,386	785	517	268	-601
Financial NPV of Investments (FNPV/C)	-1,386	785	517	268	-601
Financial IRR of Investments (FIRR/C)	0.05%	-	-	-	3.10%
Financial MIRR of Investments (MIRR)			6.22%	6.18%	

Note: Track access charges appear as both an inflow and outflow in the consolidated account. This is because this is a transfer payment between operators and manager.

8.8.6 Sources of Financing

As part of the financial analysis, identification of the different sources of funding is required in order to calculate the total financial resources available to the project. Within the framework of EU co-financed projects, the main sources of funding are:

- Community assistance (EU Grant);
- National public contribution (capital subsidies at central government level). Financial sources of national contribution are:
 - Governmental budgets
 - Loans from financial institutions like European Investment Bank, European Bank, European Bank for Reconstruction and Development;
 - The issue of Eurobonds/E-bonds.
- Local resources – not foreseen for this project.
- Private Public Partnership combined with Loan Guarantee instrument for TEN-T projects – LGTT.

Calculation of EU grant

The EU contribution is generally determined by multiplying the project's eligible expenditure by the co-financing rate of the relevant operational programme priority axis.

In order to modulate the contribution from the Funds, the maximum eligible expenditure is identified by Article 55(2) Reg. 1083/2006. Such identification of the eligible expenditure aims at ensuring enough financial resources for the project implementation, avoiding at the same time, the granting of an undue advantage to the recipient of the aid.

For a revenue generating projects the EU grant is determined using the funding gap approach. This involves three steps:

1. Identification of the Funding Gap Rate ($\%_{FG}$), which is the share of the total discounted investment cost not covered by the discounted net revenue of the project.
2. Identification of the amount to which the co-financing rate for the priority axis applies. This Decision Amount (DA) is defined as the Eligible Cost (EC) multiplied by the Funding Gap Rate ($\%_{FG}$). In this project the eligible cost has been taken to include all costs incurred prior to opening.
3. Identification of the maximum EU grant, which is equal to the Decision Amount (DA) multiplied by the maximum co-funding rate (MAX CRpa) of the relevant operational programme priority axis

The EU grant is calculated from the view point of the rail manager. This is in line with Revised Guidance Note on Article 55 of Council Regulation no 1083/2006: Revenue Generating Projects.

For this project the funding gap calculation considers the following cash flow elements related to the rail managers account in the calculation of the Funding Gap Rate:

- Investment costs – Total cost of design and construction
- Operating costs – cost of maintenance of the trail infrastructure
- Revenues – Track access charge payments from the rail operators.

The key inputs to the first calculation stage (the funding gap rate calculation) are set out in Table 131.

The second and third calculation stages are shown in Table 132 leading to a calculated EU funding amount of **2,070 Million** Euros this is 56.3% of the total investment cost.

Table 132 - Funding Gap Calculation

No.	Main Elements and parameters		Value Not Discounted	Value Discounted (NPV)
			€ million	
1	Reference period (years)	30		
2	Financial discount rate (%)	5.0%		
3	Total investment cost excluding contingencies		3,678	
4	Total investment cost			2,093
5	Residual value		1,569	
6	Residual value			183
7	Revenues			594
8	Operating costs			71
Funding Gap				
9	Net revenue = revenues – operating costs + residual value = (7) – (8) + (6)			707
10	Investment cost – net revenue = (4) – (9)			1,386
11	Funding gap rate (%) = (10) / (4)	66%		

Table 133 - Community Contribution Calculation

No.		Value (€million)
1	Eligible cost (not discounted)	3,678
2	Funding gap rate (%)	66.2%
3	Decision amount, i.e. the "amount to which the co-financing rate for the priority axis applies" = (1)*(2).	2,436
4	Co-financing rate of the priority axis (%)	85.0%
5	Union contribution (in euro) = (3)*(4)	2,070

Note: Co-financing rate of 85% adopted in line with Ceilings Applicable to Co-financing Rates identified in Annex III COUNCIL REGULATION (EC) No 1083/2006

8.8.7 Calculation of Financial Return on National Capital

Following calculation of the EU grant, the financial return on the **national capital** has been calculated. This includes the impact of EU funding in terms of a reduced investment cost. In effect this is a measure of the value for money in terms of the balance between benefits and only the element of capital investment made by the member states.

FNPV/K and FIRR/K have been calculated in accordance with method set out in the EC Guide to Cost Benefit Analysis of Investment Projects. These indicators are summarised in Table 134 below.

Table 134 - Financial Return of Own / National Resources (FNPV/K)

Indicator	Total (€million)				Consolidated
	To Rail Manager	Total	To Rail Operator Freight	Passenger	
Investment Cost	3,678				3,678
Maintenance	353				353
EU Grant	-2,070				-2,070
Residual Asset Value	-1,569				-1,569
Operating Costs		2,559	1,676	882	2,559
Track Access Charges		2,508	1,764	744	2,508
Total Outflows	392	5,066	3,440	1,626	5,458
Track Access Charges	2,508				2,508
Revenues		8,270	5,429	2,842	8,270
Total Inflows	2,508	8,270	5,429	2,842	10,778
Net Cash Flows	2,115	3,204	1,988	1,216	5,319
Net Cash Flows (discounted)	-208	785	517	268	577
Financial NPV of Investments (FNPV/K)	-208	785	517	268	577
Financial IRR of Investments (FIRR/K)	3.70%	-	-	-	8.17%
Financial MIRR of Investments (MIRR)			6.22%	6.18%	

Note: Track access charges appear as both an inflow and outflow in the consolidated account. This is because this is a transfer payment between operators and manager.

National public contribution

Financial sources of national contribution might be several.

- Governmental budgets
- Loans from financial institutions like European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD);
- The issue of Eurobonds/E-bonds.

Aforementioned financial sources may be mixed to any proportion. Our suggestion would be to apply lowest capital cost strategy, i.e. during the period of application for EU grant it would necessary to evaluate which financial sources or its mixture are most viable:

- If there are surpluses in budgets of central governments (what seems to be unlikely in foreseeable future), budget financing may be used to finance Rail Baltica. Positive aspect for this scenario that there is no direct financial cost.
- Standard EIB and EBRD senior loans are made either directly to promoters/projects or on a bank intermediated / guaranteed basis. EIB and EBRD shall be considered as a source of financing since banks are able to raise funds at advantageous rates due to an excellent AAA credit reputation. EIB, being a non-profit-motivated institution, passes on the benefits to its clients in the form of loans at fine rates. Interest rates are based on EIB's and EBRD's borrowing cost with a small margin to cover administrative expenses and other costs. As part of its overall strategy for financing TENs, EIB is also considering the utilisation of instruments providing improved leverage on the use of EIB as well as the resources of risk sharing partners. (see chapter discussing PPP issues).

EIB and the EU Commission expects in nearest future to support the development of TEN-T project bonds (so called Eurobonds or e-bonds), notably by providing credit enhancement facilities. It is expected that TEN-T Eurobonds will be guaranteed by EU Commission and, therefore, will be able to deliver lower project financing costs.

Tables below show the calculation of financial return on investment and national capital split down into the individual nations.

Table 135 - Financial Return of Investment (FNPV/C) and Financial Return of Own / National Resources (FNPV/K) – Estonia

Indicator	Total (€ million)				
	To Rail Manager	To Rail Operator	Freight	Passenger	Overall
<i>Investment Cost</i>	1,081				1,081
<i>Maintenance</i>	111				111
<i>EU Grant</i>	-694				-694
<i>Residual Asset Value</i>	-439				-439
<i>Operating Costs</i>		532	348	183	532
<i>Track Access Charges</i>		521	367	155	521
Total Outflows (with EU Grant)	59	1,053	715	338	1,112
Total Outflows (without EU Grant)	753	1,053	715	338	1,806
<i>Track Access Charges</i>	521				521
<i>Revenues</i>		2,295	1,686	609	2,295
Total Inflows	521	2,295	1,686	609	2,816
Without EU Grant					
Net Cash Flows	-232	1,242	971	271	1,010
Net Cash Flows (discounted)	-471	298	239	59	-173
Financial NPV of Investments (FNPV/C)	-471	298	239	59	-173
Financial IRR of Investments (FIRR/C)	-0.91%	-	-	-	3.20%
With EU Grant					
Net Cash Flows	462	1,242	971	271	1,704
Net Cash Flows (discounted)	-71	298	239	59	227
Financial NPV of Investments (FNPV/K)	-71	298	239	59	227
Financial IRR of Investments (FIRR/K)	3.23%	-	-	-	9.63%
Financial MIRR of Investments (MIRR)			7.18%	6.24%	

Table 136 - Financial Return of Investment (FNPV/C) and Financial Return of Own / National Resources (FNPV/K) – Latvia

Indicator	Total (€ million)				
	To Rail Manager	To Rail Operator	Freight	Passenger	Overall
<i>Investment Cost</i>	1,271				1,271
<i>Maintenance</i>	114				114
<i>EU Grant</i>	-823				-823
<i>Residual Asset Value</i>	-576				-576
<i>Operating Costs</i>		546	358	188	546
<i>Track Access Charges</i>		535	377	159	535
Total Outflows (with EU Grant)	-14	1,081	734	347	1,067
Total Outflows (without EU Grant)	809	1,081	734	347	1,891
<i>Track Access Charges</i>	535				535
<i>Revenues</i>		2,379	1,618	761	2,379
Total Inflows	535	2,379	1,618	761	2,914
Without EU Grant					
Net Cash Flows	-274	1,297	883	414	1,023
Net Cash Flows (discounted)	-549	311	219	92	-237
Financial NPV of Investments (FNPV/C)	-549	311	219	92	-237
Financial IRR of Investments (FIRR/C)	-0.90%	-	-	-	2.82%
With EU Grant					
Net Cash Flows	549	1,297	883	414	1,847
Net Cash Flows (discounted)	-82	311	219	92	229
Financial NPV of Investments (FNPV/K)	-82	311	219	92	229
Financial IRR of Investments (FIRR/K)	3.22%	-	-	-	9.22%
Financial MIRR of Investments (MIRR)			7.02%	6.70%	

Table 137 - Financial Return of Investment (FNPV/C) and Financial Return of Own / National Resources (FNPV/K) – Lithuania

Indicator	Total (€ million)				
	To Rail Manager	To Rail Operator	Freight	Passenger	Overall
<i>Investment Cost</i>	1,326				1,326
<i>Maintenance</i>	128				128
<i>EU Grant</i>	-854				-854
<i>Residual Asset Value</i>	-554				-554
<i>Operating Costs</i>		613	402	211	613
<i>Track Access Charges</i>		601	423	178	601
Total Outflows (with EU Grant)	46	1,214	825	390	1,260
Total Outflows (without EU Grant)	900	1,214	825	390	2,114
<i>Track Access Charges</i>	601				601
<i>Revenues</i>		2,531	1,514	1,016	2,531
Total Inflows	601	2,531	1,514	1,016	3,132
Without EU Grant					
Net Cash Flows	-299	1,316	690	626	1,017
Net Cash Flows (discounted)	-568	322	178	143	-246
Financial NPV of Investments (FNPV/C)	-568	322	178	143	-246
Financial IRR of Investments (FIRR/C)	-0.96%	-	-	-	2.77%
With EU Grant					
Net Cash Flows	555	1,316	690	626	1,871
Net Cash Flows (discounted)	-85	322	178	143	237
Financial NPV of Investments (FNPV/K)	-85	322	178	143	237
Financial IRR of Investments (FIRR/K)	3.20%	-	-	-	9.29%
Financial MIRR of Investments (MIRR)			6.61%	7.13%	

8.8.8 Calculation of Financial return of Private Capital

PPP implies the transfer of risks from the public to the private sector. Main question is to determine whether the demand risk is being passed on or not (and if yes, then LGTT financing may be involved). Given the uncertainty around traffic forecasts (optimism bias issue) the pricing of demand risk can be expensive. Therefore, for initial calculations it is necessary to assume that total risks of the Project are the same; nevertheless, the Project is implemented by a private partner or central government institutions.

The blending of EU grants with PPPs may represent an effective way to reduce the cost of private capital. It is assumed that private partner will be subject to a maximum ceiling of €200 million within LGTT scheme.

We suggest that the mechanism of PPP that is worth to be considered concession model, where private partner receives fees from infrastructure users. Any other alternative (for example, DBFO, BOT) financially is likely to be more expensive than credits or bond issue by national governments.

The residual value is here excluded because usually in PPP contracts the infrastructure is returned to the public sector at the end of the period.

It is clearly seen that PPP concession model (private partner – Rail Manager) without large subsidies from central governments is not viable since track access charges do not cover all expenses that private partner will face during the project cycle. Mainly this is due to extensive lending cost that private partner will face during the project cycle. Therefore it is needed either to revise track access charges (it is not recommended since demand is expected to fall dramatically if this is the case) or provide subsidies from central governments to private partner.

It is recommended that private partner shall be involved as a rail operator since with existing assumptions this section of Rail Baltica is considered as profitable and might exist without subsidies from central governments.

Table 138 - Calculation of Financial return of Private Capital

Indicator	Total (€ million)				
	To Rail Manager	To Rail Operator	Freight	Passenger	Consolidated
<i>Total Investment Cost</i>	3,678				3,678
<i>Maintenance</i>	353				353
<i>EU Grant</i>	-2,070				-2,070
<i>Residual Asset Value</i>	0				0
<i>Concession Fee to Public Partner</i>	30				
<i>Private equity</i>	-10				
<i>Loan Reimbursement and Interest</i>	3,019				
<i>Operating Costs</i>		2,559	1,676	882	2,559
<i>Track Access Charges</i>		2,508	1,764	744	2,508
Total Outflows	5,000	5,066	3,440	1,626	7,027
<i>Track Access Charges</i>	2,508				2,508
<i>LGTT financing</i>	200				200
<i>Revenues</i>		8,270	5,429	2,842	8,270
Total Inflows	2,708	8,270	5,429	2,842	10,978
Net Cash Flows	-2,292	3,204	1,988	1,216	3,951
Net Cash Flows (discounted)	-1,226	785	517	268	-441
Financial NPV of Investments (FNPV/K)	-1,226	785	517	268	-441
Financial IRR of Investments (FIRR/K)	-9.56%	-	-	-	1.97%

8.8.9 Financial Sustainability

Having determined the investment costs, operating costs and sources of finance, it is possible to determine the project's financial sustainability. A project is financially sustainable when it does not incur the risk of running out of cash in the future. The sustainability assessment determines whether the timing of cash spending and generation results in the cash inflows consistently matching the cash outflows. Stability occurs if the cumulative net cash flow is positive in all years.

Table below summarises the financial sustainability assessment findings.

Table 139 - Financial Sustainability of the Project

	Rail Manager				Passenger Rail Operator				Freight Rail Operator				Consolidated			
	Total Inflows	Total Outflows	Net Cash Flow		Total Inflows	Total Outflows	Net Cash Flow		Total Inflows	Total Outflows	Net Cash Flow		Total Inflows	Total Outflows	Net Cash Flow	
			Annual	Cumulative			Annual	Cumulative			Annual	Cumulative			Annual	Cumulative
2011	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0
2012	5.9	5.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	5.9	5.9	0.0	0
2013	5.9	5.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	5.9	5.9	0.0	0
2014	5.9	5.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	5.9	5.9	0.0	0
2015	5.9	5.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	5.9	5.9	0.0	0
2016	60.9	60.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	60.9	60.9	0.0	0
2017	60.9	60.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	60.9	60.9	0.0	0
2018	60.9	60.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	60.9	60.9	0.0	0
2019	60.9	60.9	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	60.9	60.9	0.0	0
2020	682.1	682.1	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	682.1	682.1	0.0	0
2021	682.1	682.1	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	682.1	682.1	0.0	0
2022	682.1	682.1	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	682.1	682.1	0.0	0
2023	682.1	682.1	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	682.1	682.1	0.0	0
2024	682.1	682.1	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	682.1	682.1	0.0	0
2025	57.5	0.8	56.7	57	70.9	54.2	16.7	17	126.0	63.8	62.2	62	254.5	118.8	135.7	136
2026	58.8	0.8	58.0	115	72.3	54.2	18.1	35	129.7	66.3	63.4	126	260.8	121.3	139.5	275
2027	60.1	2.4	57.7	172	73.8	54.2	19.6	54	133.5	68.8	64.6	190	267.3	125.4	141.9	417
2028	61.4	0.8	60.6	233	75.3	54.2	21.1	76	137.3	71.5	65.8	256	274.0	126.5	147.6	565
2029	62.9	10.3	52.5	286	76.7	54.2	22.5	98	141.3	74.2	67.1	323	280.9	138.8	142.1	707
2030	64.3	2.4	61.9	348	78.3	54.2	24.1	122	145.4	77.1	68.3	391	288.0	133.7	154.3	861
2031	65.8	0.8	65.0	413	79.9	54.2	25.7	148	148.8	80.1	68.8	460	294.5	135.0	159.5	1021
2032	67.4	9.3	58.1	471	81.5	54.2	27.3	175	152.3	83.1	69.2	529	301.2	146.6	154.6	1175
2033	69.1	2.4	66.7	537	83.1	54.2	28.9	204	155.9	86.3	69.5	599	308.0	142.9	165.1	1340
2034	70.8	10.3	60.4	598	84.8	54.2	30.6	235	159.5	89.6	69.8	669	315.0	154.2	160.8	1501
2035	72.5	0.8	71.7	669	86.5	54.2	32.3	267	163.2	93.1	70.1	739	322.2	148.1	174.1	1675
2036	74.4	2.4	72.0	741	88.2	54.2	34.0	301	167.0	96.7	70.3	809	329.6	153.3	176.3	1852
2037	76.3	0.8	75.5	817	90.0	54.2	35.8	337	170.9	100.4	70.5	880	337.2	155.4	181.8	2033
2038	78.2	0.8	77.4	894	91.8	54.2	37.6	374	174.9	104.3	70.7	950	345.0	159.2	185.7	2219
2039	80.3	11.9	68.4	963	93.7	54.2	39.5	414	179.0	108.3	70.7	1021	353.0	174.4	178.6	2398
2040	84.8	9.3	75.5	1038	95.6	54.2	41.4	455	183.2	117.1	66.1	1087	363.6	180.6	183.0	2581
2041	86.9	0.8	86.1	1124	97.3	54.2	43.1	498	186.9	121.1	65.8	1153	371.1	176.1	195.0	2776
2042	88.9	2.4	86.5	1211	99.0	54.2	44.8	543	190.7	125.1	65.6	1219	378.7	181.7	197.0	2973
2043	91.0	0.8	90.2	1301	100.7	54.2	46.5	590	194.5	129.1	65.4	1284	386.2	184.1	202.1	3175
2044	93.0	169.3	-76.2	1225	102.5	54.2	48.3	638	198.3	133.1	65.2	1349	393.8	356.6	37.2	3212
2045	95.1	2.4	92.7	1318	104.2	54.2	50.0	688	202.0	137.1	64.9	1414	401.3	193.7	207.6	3420
2046	97.1	0.8	96.3	1414	105.9	54.2	51.7	740	205.8	141.1	64.7	1479	408.9	196.1	212.8	3632
2047	99.2	0.8	98.4	1512	107.7	54.2	53.5	793	209.6	145.1	64.5	1543	416.4	200.1	216.3	3849
2048	101.2	10.9	90.4	1603	109.4	54.2	55.2	848	213.4	149.1	64.3	1608	424.0	214.2	209.8	4058
2049	103.3	82.0	21.3	1624	111.1	54.2	56.9	905	217.1	153.1	64.0	1672	431.5	289.3	142.2	4201
2050	105.3	0.8	104.6	1729	112.8	54.2	58.6	964	220.9	157.1	63.8	1735	439.1	212.1	227.0	4428
2051	107.4	2.4	105.0	1834	114.6	54.2	60.4	1024	224.7	161.1	63.6	1799	446.7	217.7	228.9	4657
2052	109.5	0.8	108.7	1942	116.3	54.2	62.1	1086	228.5	165.1	63.3	1862	454.2	220.1	234.1	4891
2053	111.5	0.8	110.7	2053	118.0	54.2	63.8	1150	232.2	169.1	63.1	1925	461.8	224.1	237.6	5128
2054	113.6	11.9	101.6	2155	119.7	54.2	65.5	1216	236.0	173.1	62.9	1988	469.3	239.3	230.1	5358

Note: Cash inflow to rail manager between 2011 and 2020 comes from EU grant and national public contribution.

Overall the project shows positive cumulative cash flow in all years suggesting that at this level the project is financially stable.

The net cash flow for the rail manager is positive in all years except 2044. The negative cash flow in these years is due to a series of maintenance tasks expected to occur after 25 yrs of operation. The positive annual cash flow leads to a large cumulative net cash flow by the end of the appraisal period.

9 Investigation on Interoperability Assessment

(Excerpts from "Guide for the application of Technical Specifications for Interoperability (TSIs), by the European Railway Authority, December 2010)

The Interoperability Directive (2008/57/EC) is a recast of the former Interoperability Directives – 96/48/EC on high speed (HS), 2001/16/EC on conventional rail (CR), both of which were amended by Directives 2004/50/EC and 2007/32/EC. The Interoperability Directive follows the principle of the new-approach directives, consisting of laying down essential requirements and leaving their technical fulfilment to harmonised standards on voluntary basis.

However, due to the complexity of the rail system and of its integrated aspects regarding the essential requirements, it was necessary to set up TSIs to ensure the mandatory interoperability of the rail system. They specify the "conditions to be met to achieve interoperability" and are to be considered as a definition of the "optimal level of technical harmonisation" (Article 1 of the Interoperability Directive).

The objectives of the Interoperability Directive should be understood as a part of the EU approach to improve the performance of rail transport, whose cornerstones are:

- open access in rail transport to favour competition and create incentives for product innovation and service quality;
- fostering the interoperability of the national networks (and hence international services) through technical harmonisation;
- developing an European rail network, by means of extending the Trans-European Network to the whole Community rail system;
- implementing a common rail safety approach to facilitate market access while maintaining a reasonably high level of safety.

Member States (in this case Estonia, Latvia and Lithuania collectively) may decide to apply a TSI or certain requirements of a TSI beyond the technical scope defined in the TSIs themselves or in situations not defined in the Interoperability Directive. In this case, it should be reflected in each of the national legislations in exactly the same way to ensure consistency of the entire Rail Baltica system.

9.1 Interoperability

"Interoperability" means the ability of the rail system to allow the safe and uninterrupted movement of trains which accomplish the required levels of performance. This ability depends on all the regulatory, technical and operational conditions which must be met in order to satisfy the essential requirements.

The Interoperability Directive and its related TSIs are designed to facilitate the "optimal level of technical harmonisation" of the entire EU rail system with a view to improving its competitiveness, for example, by lowering production, acceptance, operation and maintenance costs. The aim is, on one hand, to facilitate international railway services and, on the other hand, to set up common EU-wide rules for conformity assessment and placing in service of infrastructure, fixed facilities and vehicles.

In recent years, a number of new trains have been brought into service on international routes. This has been achieved safely and with minimum disruption, but nearly all of these new trains achieved cross-border interoperability on a route specific basis (very similar to Rail Baltica). In other words, these new trains relied on forms of interoperability that were not fully compliant with the Interoperability Directive and its related TSIs. Typically, the vehicles used on these international routes were specifically equipped for those routes with, for instance, multiple control systems allowing it to switch rapidly from one control system to another where necessary. Such specific solutions, which encompassed the rules of different states, entail additional production and conformity assessment costs.

9.2 Subsystems

"Subsystems" means the result of the division of the rail system, as shown in Annex II [of the Interoperability Directive]. These subsystems, for which essential requirements must be laid down, may be structural or functional.

Annex II states that, for the purposes of the Interoperability Directive, the rail system may be broken down into five (5) structural subsystems:

- infrastructure,
- energy,
- track side control-command and signalling,
- on board control-command and signalling and
- and rolling stock;

(the former three subsystems may be called network related subsystems, the latter two may be called vehicle related subsystems)

and three (3) functional subsystems:

- operation and traffic management,
- maintenance,
- telematic applications for passenger and freight services.

The subsystems shall comply with the TSI in force at the time of their placing in service, upgrading or renewal, in accordance with 2008/57/EC Directive; this compliance shall be permanently maintained while each subsystem is in use.

Article 5(2) [Conformity of a subsystem with TSIs] states the obligation of compliance with the TSIs only for those structural subsystems that have been placed in service (following their construction, upgrading or renewal) after coming in force of these TSIs – therefore, the entire Rail Baltica system. The adoption of a TSI does not have a retroactive character. It does not impose an obligation to bring the existing structural subsystems in compliance with it, unless these subsystems are upgraded or renewed. This may apply to upgrades and renewals required in and around existing stations and existing rail infrastructure.

Article 15 [Placing in service of structural subsystems] states that each Member State shall authorise the placing in service of those structural subsystems constituting the rail system which are located or operated in its territory. To this end, Member State particularly checks:

- "the technical compatibility of these subsystems with the system into which they are being integrated" (Art.15(1));
- "the safe integration of these subsystems in accordance with" the Safety Directive (Articles 4.3 and 6.3);
- their compliance "with the relevant TSI provisions on operation and maintenance", if applicable.

The subsystem constituting the rail system should be subjected to a verification procedure. This verification must enable the authorities responsible for authorising their placing in service to be certain that, at the design, construction and putting in service stages, the result is in line with the regulations and technical and operational provisions in force.

In practice, for authorising a subsystem to be placed in service, the National Safety Authority has to check whether following procedures have been carried out with a positive result:

- 'EC' verification,
- Verification of conformity with applicable notified national rules (open points, specific cases, derogations),
- Risk evaluation and assessment, if required according to Commission Regulation 352/2009/EC.

After a subsystem is placed in service, care should be taken to ensure that it is operated and maintained in accordance with the essential requirements relating to it. For this purpose, the Safety Directive defines responsibilities of Railway Undertakings and Infrastructure Managers regarding the subsystems they operate. The Member States have to check that these responsibilities are met on occasion of granting and supervision of safety certificates and safety authorisations.

9.3 Structure and Content of TSIs

Article 5(3) indicates the contents of TSIs, to the extent necessary to achieve interoperability within the EU rail system.

Table 140 - Contents of TSIs

<i>Each TSI shall:</i> a) <i>indicate its intended scope (part of network or vehicles referred to in Annex I [of the Interoperability Directive]; subsystem or part of subsystem referred to in Annex II [of the Interoperability Directive]);</i>	These contents are in Chapters 1 and 2 of the TSIs.
b) <i>lay down essential requirements for each subsystem concerned and its interfaces vis-à-vis other subsystems;</i>	The essential requirements are set out in general terms in Annex III of the Interoperability Directive; they are further elaborated upon for each subsystem in Chapter 3 of the TSIs.
c) <i>establish the functional and technical specifications to be met by the subsystem and its interfaces vis-à-vis other subsystems. If need be, these specifications may vary according to the use of the subsystem, for example according to the categories of line, hub and/or vehicles provided for in Annex I [of the Interoperability Directive];</i>	The subsystem-specific essential requirements are reflected in the technical parameters, interfaces and performance requirements set out for each subsystem in Chapter 4 of the TSIs. As example of this variation of requirements, reference can be made to different categories of line defined in the HS and CR Infrastructure TSI, different power supply systems in the HS and CR Energy TSI, and so on.
d) <i>determine the interoperability constituents and interfaces which must be covered by European specifications, including European standards, which are necessary to achieve interoperability within the rail system.</i>	Chapter 5 of the TSIs deals with constituents and interfaces covered by European specifications. Standards (voluntary or obligatory) that ensure the compliance with the essential requirements of the Interoperability Directive enable the fulfilment of the technical characteristics of the subsystems defined in Chapter 4 of the TSIs and not directly the essential requirements of the Directive.

<i>e) state, in each case under consideration, which procedures are to be used in order to assess the conformity or the suitability for use of the interoperability constituents, on one hand, or the 'EC' verification of the subsystem, on the other hand. These procedures shall be based on the modules defined in Decision 93/465/EEC and its following amendments;</i>	Chapter 6 of TSIs. It has also to be pointed out that the indicated Decision was replaced by Decision 768/2008/EC. Furthermore, a specific Decision on railway modules has been adopted. TSIs adopted on or after adoption of this specific decision make reference to it. TSIs adopted before that date contain the description of the modules in each TSI itself.
<i>f) indicate the strategy for implementing the TSIs. In particular, it is necessary to specify the stages to be completed in order to make a gradual transition from the existing situation to the final situation in which compliance with the TSIs will be the norm;</i>	Chapter 7 of the TSIs, which includes specific cases, defines also transitional periods for application of different provisions of the TSI and allowing for a certain time to place in service subsystems conform to the rules that were in force before the adoption of the TSI.
<i>g) indicate, for the staff concerned, the professional qualifications and health and safety conditions at work required for the operation and maintenance of the above subsystem, as well as for the implementation of the TSIs.</i>	These elements are described in Chapter 4, as part of the characterisation of subsystem.

If certain technical aspects corresponding to the essential requirements cannot be explicitly covered in a TSI they shall be clearly identified in an annex as "open points". The idea is that certain aspects are considered to be necessary for satisfying the essential requirements, but (because of their complexity or a lack of time) it has not yet been possible to define an appropriate specification for the target system. In this case, a TSI may be adopted with a view of closing the open point in further revisions. In the meantime, notified national rules apply for this open point.

The following table provides a status of the present TSIs.
Table 141 - TSI State of Play (March 2011)

Subsystem	High Speed	Conventional
Infrastructure	Decision 2008/217/EC (20 Dec 2007)	Adopted 2011/275/EU (26 April 2011)
Energy	Decision 2008/284/EC (6 Mar 2008)	Adopted 2011/274/EU (26 April 2011)
Control-Command and Signalling (CCS) (on board and track side)	Decision 2006/860/EC (7 Nov 2006)	Decision 2006/879/EC (28 Mar 2006)
	Decision 2008/386/EC modifying Annex A	
	New revision under preparation. Expected to be adopted in 2011/2012	
Rolling Stock. Locomotives and passenger rolling stock	Decision 2008/232/EC (21 Feb 2008)	Expected to be adopted in 2011
Rolling Stock. Freight Wagons	Not applicable	Decision 2006/861/EC (28 Jul 2006) amended by Decision 2009/107/EC (14 Feb 2009) New revision under preparation. Expected to be adopted in 2011/2012
Rolling Stock. Noise (transversal TSI including locomotives, passenger rolling stock and freight wagons)		Decision 2006/86/EC (23 Dec 2005) New revision expected to be adopted in 2011
Operation and Traffic Management	Decision 2008/231/EC (1 Feb 2008)	Decision 2006/920/EC (11 Aug 2006) amended by Decision 2009/107/EC (14 Feb 2009)
	Decision 2010/640/EU amending Decisions 2006/920/EC and 2008/231/EC (21 Oct 2010)	
	New revision expected to be adopted in 2011	
Telematic Applications for Freight Services	Not applicable	Regulation 62/2005/EC (23 Dec 2005)
Telematic Applications for Passenger Services	Expected to be adopted in 2011	
Safety in railway tunnels (transversal TSI including infrastructure, energy, CCS and rolling stock)	Decision 2008/163/EC (20 Dec 2007)	
Accessibility for PRM (transversal TSI including infrastructure and rolling stock)	Decision 2008/164/EC (21 Dec 2007)	

Therefore, the preferred alignment for the Rail Baltica project (a new conventional line) includes subsystems Infrastructure, Energy (since the line is proposed to be electrified) and Track side CCS. The TSIs relevant for each of these subsystems are:

- Infrastructure: CR INF TSI,
- Infrastructure: PRM TSI (since the line includes stations),
- Energy: CR ENE TSI (since the line is electrified),
- Track side CCS: CR CCS TSI

In addition, since the system will have new conventional locomotives (for passenger and freight service) the project includes subsystems RST and On board CCS. The TSIs applicable to each of these subsystems are:

- RST: CR LOC&PAS TSI, RST Noise TSI
- On board CCS: CR CCS TSI

In addition, since the system will have an independent Infrastructure Manager the project includes subsystems related to Operation and Traffic Management and Telematic Applications for both Freight and Passenger Services.

9.4 Infrastructure Subsystem (Infrastructure and Stations)

Directive 2008/57/EC (newly adopted 2011/275/EU - 26 April 2011) concerning the technical specification for interoperability related to the Infrastructure Subsystem (CR INF TSI) defines the functional and technical specifications for rail infrastructure related to 'Categories of Line' with respective 'Performance Parameters'. The 'Categories of Line' determine specific levels of requirements for Basic Parameters.

Conventional rail line types for different types of traffic include:

- Type of Line IV – New core TEN line
- Type of Line V – Upgraded core TEN line
- Type of Line VI – New other TEN line
- Type of Line VII – Upgraded other TEN line

Rail Baltica is considered a Type IV Line – New Core TEN line with Mixed-train Service, therefore its 'Performance Parameters' are as follows:

Axle Load = 25 tonnes

Line Speed = 200 km/h

Train Length = 750 meters

It is permissible to design lines such that they will also accommodate larger gauges, higher axle loads, greater speeds and longer trains. It is also permissible for a line or sections of a line to be designed for speeds and/or train length less than those specified in the TSI, where necessary to meet geographical, environmental or other constraints.

Infrastructure designed to the minimum requirements of the TSI does not provide the capability to meet both maximum speed and maximum axle load in combination.

The CR INF TSI covers:

- the infrastructure structural subsystem
- the part of the maintenance functional subsystem relating to the infrastructure subsystem (e.g. Washing machines)

The scope of the CR INF TSI therefore includes the following basic parameters:

- Line layout, track parameters, switches and crossings
 - Structure gauge (all Categories of Line)
 - The structure gauge shall be set on the basis of the gauge set out as performance parameters for Categories of Line.
 - Calculations of the structure gauge shall be done using the kinematic method in accordance with the requirements of chapters 5, 7, 10 and the Annex C of prEN 15273-3:2009.
 - Distance between track centres (all Categories of Line)
 - The distance between track centres shall be set on the basis of the gauge.
 - Where appropriate the minimum distance between track centres shall also take into account aerodynamic effects. The rules for taking account of aerodynamic effects ... are an open point.
 - Maximum Gradients for new lines for mixed and freight traffic
 - Maximum gradients as steep as 12.5 mm/m are permitted for main tracks at the design phase
 - Gradients of stabling tracks intended for parking rolling stock shall

- not be more than 2.5 mm/m
- Minimum radius of horizontal curve (all Categories of Line)
 - The minimum design radius of horizontal curve shall be selected with regard to the local design speed of the curve.
 - For stabling tracks or sidings the minimum horizontal design curve radius shall not be less than 150 m.
 - Reverse curves ... with radii in the range from 150 m up to 300 m shall be designed in accordance to EN 13803-2:2006 section 8.4 to prevent buffer locking.
- Minimum radius of vertical curve (all Categories of Line)
 - The radius of vertical curves shall be at least 600 m on a crest or 900 m in a hollow.
 - For humps in marshalling yards the radius of vertical curves shall be at least 250 m on a crest or 300 m in a hollow.
- Nominal Track Gauge = 1435mm
- Cant = design limit 160mm for mixed-train service
- Rate of Change of Cant = The maximum rate of change of cant through a transition shall be 70 mm/s.
- Cant Deficiency =
 - Plain Track - for trains which are not fitted with cant deficiency compensation systems cant deficiency shall not exceed
 - 130 mm for freight wagons
 - 150 mm for locomotives of passenger coaches
 - Diverging Track of Switches –
 - 120 mm for ... turnout speeds of $30 \text{ km/h} \leq V \leq 70 \text{ km/h}$
 - 105 mm for ... turnout speeds of $70 \text{ km/h} < V \leq 170 \text{ km/h}$
 - 85 mm for ... turnout speeds of $170 \text{ km/h} < V \leq 200 \text{ km/h}$
- Equivalent Conicity =
 - Design values of track gauge, rail head profile and rail inclination for plain line shall be selected to ensure that the equivalent conicity limit of 0.25 ($60 \text{ km/h} < V \leq 200 \text{ km/h}$) is not exceeded, when modelled wheelsets passing over the designed track conditions.
- Rail Head Profile = geometrical dimensions
- Rail Inclination = The rail shall be inclined towards the centre of the track. The rail inclination for a given route shall be selected from the range 1/20 to 1/40.
- Track stiffness = Open point
- Electrical Insulation of Rails = the design value of minimum electrical resistance shall be 3 Ωkm in wet conditions
- Switches and Crossings =
 - The technical characteristics of switches and crossings for the track gauge of 1435 mm shall comply with the following inservice limits:
 - Maximum value of free wheel passage in switches: 1380 mm
 - Minimum value of fixed nose protection for common crossings: 1392 mm
 - Maximum value of free wheel passage at crossing nose: 1356 mm
 - Maximum value of free wheel passage at check rail/wing rail entry: 1380 mm
 - Minimum flangeway width: 38 mm
 - Minimum flangeway depth: 40 mm
 - Maximum excess height of check rail: 70 mm
- Track and Structure Resistance to Loads
 - Vertical Loads = The track shall be designed to withstand at least axle load, max. dynamic wheel force, max. quasi-static wheel force
 - Longitudinal Track Resistance = The track shall be designed to withstand at least forces arising from braking (deceleration) ... from temperature changes in the rail (use of braking systems independent of wheel-rail adhesion condition)
 - Lateral Track Resistance = The track shall be designed to withstand at least maximum total dynamic lateral force, quasi static guiding force

- Resistance of New Bridges to Traffic Loads = Structures shall be designed to support vertical loads in accordance with load model 71, defined in EN 1991-2:2003 (in addition load model SW/0 for continuous bridges). The load models shall be multiplied by the factor α () depending on Categories of Line.
- Equivalent Vertical Loading for New Earthworks and Earth Pressure Effects = similar to bridges
- Resistance of New Structures Over or Adjacent to Tracks = Aerodynamic actions from passing trains shall be taken into account as set out in EN 1991-2:2003 paragraph 6.6.
- Resistance of Existing Bridges and Earthworks to Traffic Loads = Upgraded bridges and earthworks shall be brought to a specified level of interoperability according to the Category of Line. The capability requirements for structures are defined by a combined quantity comprising of the Line Category set out in EN 15528:2008 (or if relevant Locomotive Class) and a corresponding maximum speed.
- Track geometrical quality
 - Track Twist = difference between two cross levels taken at a defined distance apart, usually expressed as a gradient. The track twist limit is a function of the measurement base applied (l) according to the formula: Limit twist = $(20l + 3)$ with a maximum value of 7 mm/m.
 - Variation of Track Gauge = Minimum and maximum track gauge depending on the speed.
 - In Service Cant = +/- 20 mm with a max. of 170 mm for mixed-train service lines.
- Platforms
 - Usable Length = The platform length shall be sufficient to accommodate the longest interoperable train intended to stop at the platform in normal service. When determining the length of trains intended to stop at the platform, consideration shall be given to both the current service requirements
 - Further BPs related to platforms are set out in the PRM TSI
- Health, safety and environment, provisions for operation
 - Maximum pressure variations in tunnels
 - Noise and vibration limits and mitigation measures
 - Protection against electric shock
 - Safety in railway tunnels
 - Effects of cross winds
- Fixed installations for servicing trains
 - Toilet discharge
 - Train external cleaning facilities
 - Water restocking
 - Refuelling
 - Electrical shore supply

All of the defined functional and technical specifications should be taken into consideration and should be able to be met in the eventual design of the Rail Baltica new 1435mm conventional rail line.

9.5 Energy Subsystem (Electrification)

The Energy TSI (CR ENE TSI - newly adopted as 2011/274/EU - 26 April 2011) specifies those requirements which are necessary to assure the interoperability of the rail system related to energy. This TSI covers all fixed installations, DC or AC that are required to supply, with respect to the essential requirements, traction energy to a train.

The energy subsystem also includes the definition and quality criteria for interaction between a pantograph and the overhead contact line.

The energy subsystem consists of:

- Substations: connected on the primary side to the high-voltage grid, with transformation of the high-voltage to a voltage and/or conversion to a power supply system suitable for the trains. On the secondary side, substations are connected to the railway contact line system;
- Sectioning Locations: electrical equipment located at intermediate locations between substations to supply and parallel contact lines and to provide protection, isolation and auxiliary supplies;

- Separation Sections: equipment required to provide the transition between electrically different systems or between different phases of the same electrical system;
- Contact Line System: a system that distributes the electrical energy to the trains running on the route and transmits it to the trains by means of current collectors. The contact line system is also equipped with manually or remotely controlled disconnectors which are required to isolate sections or groups of the contact line system according to operational necessity. Feeder lines are also part of the contact line system;
- Return Circuit: all conductors which form the intended path for the traction return current and which are additionally used under fault conditions. Therefore, so far as this aspect is concerned, the return circuit is part of the energy subsystem and has an interface with the infrastructure subsystem.

In addition, according to the Directive 2008/57/EC, the energy subsystem includes:

- On-board Parts of the Electric Consumption Measuring Equipment - for measurement of electric energy taken from or returned to (during regenerative braking) the contact line by the vehicle, supplied from the external electric traction system. The equipment is integrated into and put into service with the traction unit, and is in the scope of the conventional rail locomotives and passenger rolling stock TSI (CR LOC&PAS).

The Directive 2008/57/EC also foresees that the current collectors (pantographs), which transmit electrical energy from the overhead contact line system to the vehicle, are in the rolling stock subsystem. They are installed and are integrated into and put into service with the rolling stock and are in the scope of CR LOC & PAS TSI.

The power supply system has to be designed such that every train will be supplied with the necessary power. Therefore, the supply voltage, current draw of each train and the operating schedule are important aspects for performance.

Power supply:

- Voltage and frequency
- Parameters relating to supply system performance
- Continuity of power supply in case of disturbances in tunnels
- Current capacity, DC systems, trains at standstill
- Regenerative braking
- Electrical protection coordination arrangements
- Harmonics and dynamic effects for AC systems, and
- Electric energy consumption measuring equipment

As with any electrical device, a train is designed to operate correctly with a nominal voltage and a nominal frequency applied at its terminals, i.e. the pantograph(s) and wheels. Variations and limits of these parameters need to be defined in order to assure the anticipated train performance. Modern, electrically powered trains are often capable of using regenerative braking to return energy to the power supply, reducing power consumption overall. The power supply system can be designed to accommodate such regenerative braking energy.

In any power supply, short-circuits and other fault conditions may occur. The power supply needs to be designed so that the controls detect these faults immediately and trigger measures to remove the short-circuit current and isolate the affected part of the circuit. After such events, the power supply has to be able to restore supply to all installations as soon as possible in order to resume operations.

A compatible geometry of the overhead contact line to the pantograph is an important aspect of interoperability. As far as geometrical interaction is concerned, the height of the contact wire above the rails, the variation in contact wire height, the lateral deviation under wind pressure and the contact force have to be specified. The geometry of the pantograph head is also fundamental to assure good interaction with the overhead contact line, taking into account vehicle sway.

Geometry of the OCL and quality of current collection:

- Geometry of the overhead contact line
- Pantograph gauge
- Mean contact force
- Dynamic behaviour and quality of current collection

- Pantograph spacing
- Contact wire material
- Phase separation sections, and
- System separation sections

In order to support interoperability of European networks, the pantographs specified in CR LOC&PAS TSI are the target.

The interaction between an overhead contact line and a pantograph represents a very important aspect in establishing reliable power transmission without undue disturbances to railway installations and the environment. This interaction is mainly determined by:

- static and aerodynamic effects dependent upon the nature of the pantograph contact strips and the design of the pantograph, the shape of the vehicle on which the pantograph(s) is (are) mounted and the position of the pantograph on the vehicle,
- the compatibility of the contact strip material with the contact wire,
- the dynamic characteristics of the overhead contact line and pantograph(s) for single unit or multiple unit trains,
- the number of pantographs in service and the distance between them, since each pantograph can interfere with the others on the same overhead contact line section.

The AC 25 kV 50 Hz system is to be the target supply system, for reasons of compatibility with the electrical generation and distribution systems and standardisation of substation equipment.

Available energy and grid capacity within the existing Rail Baltica alignment needs to be studied in depth in the preliminary planning and design stages to clearly define if additional loads need to be requested from the local utilities.

9.6 Control-Command and Signalling (CCS) (on board and track side)

Decision 2006/679/EC concerning the technical specification for interoperability relating to the "control-command and signalling subsystem" of the trans-European conventional rail system defines the functional and technical specifications related to the both track-side and on-board systems:

- Control-command safety characteristics relevant to interoperability
- On-board ETCS functionality
- Track-side ETCS functionality
- EIRENE functions
- ETCS and EIRENE air gap interfaces
- On-board interfaces internal to control-command
- Trackside interfaces internal to control-command
- Key management
- ETCS-ID management
- HADB (hot axle box detector)
- Compatibility with track-side train detection systems
- Electromagnetic compatibility
- ETCS DMI (Driver machine interface)
- EIRENE DMI (Driver machine interface)
- Interface to data recording for regulatory purposes
- Visibility of track-side control-command objects

In addition, the TSI defines the functional and technical specifications of the interfaces to other subsystems including traffic operation and management, rolling stock, infrastructure and energy. The TSI also states the required:

- Operating Rules
- Maintenance Rules
- Professional Qualifications
- Health and Safety Conditions
- Infrastructure and Rolling Stock Registers

The Rail Baltica 1435mm rail line will need to be compliant with European Standards for Inter-operability. These standards mandate European Train Management System (ERTMS) as a solution.

ERTMS consists of two elements; the European Train Control System (ETCS) and Global System Mobile – Railways (GSM-R). The ETCS provides common automatic train protection functionality together with in-cab signalling of movement authority and speed information for the driver. The GSM-R provides a common radio system for trains operating across European borders.

Three levels of ERTMS are envisaged but only Levels 1 and 2 are in commercial use:

- Level 1 – An overlay to line side signalling systems that provides enhanced safety through the provision of automatic train protection system that supervises the train speed against the speed profile calculated by the on-board system in relation to the limit of movement authority received. It utilises the existing train detection and interlocking but provides in cab signalling of movement authority by taking aspect information from the line side signal circuits and communicates this into the cab via Local Electronic Units (LEU) and track mounted balise.
- Level 2 – Provides additional functionality and flexibility by removing the need for line side signals. Train position is detected by the track side train detection system via the interlocking. Track mounted balise provide odometry referencing for the on board system. Movement authority is communicated to the train from a Radio Block Centre via the GSM-R radio system based upon safety integrity information from the interlocking. The interlocking must be capable of two way communication with the RBC. This generally requires the renewal of the interlocking. This level of ERTMS enables more flexible use of the underlying block system and can enhance capacity of the network.
- Level 3 – Provides moving block functionality. It removes the need for track based train detection and line side infrastructure other than passive balise mounted in the track; and the GSM-R radio system. Level 3 systems are still being developed and are not in commercial use in main line railways. The level 3 system is not constrained by fixed blocks and can have high levels of capacity and operational flexibility as a consequence.

The use of ERTMS on the Rail Baltica route is specified by the Technical Specifications for Interoperability. Where a dual gauge route is desirable in an area of restricted corridor, the overlay of ERTMS level 1 would provide a solution that:

1. enables the continuation of ERTMS signalling control for trains running on the 1435mm route;
2. provides a common European train protection interface between infrastructure and train; and
3. minimises alterations to the existing signalling systems or rolling stock that use the 1520mm gauge line.

The existing system would need to be altered as follows:

1. The track based train detection would need to be reconfigured to incorporate rails in both gauges as one circuit.
2. Local Electronic Units would need to be provided to derive information from the signal aspect circuits that feed the line side signals.
3. Track balise would need to be provided to communicate signal aspect information into the on-board ERTMS equipment from the LEU and communicate the static profile of the route ahead.
4. Interlocking logic alterations would need to be undertaken where points in different gauges are introduced into the layout.
5. Alterations to the control panel would need to be undertaken to reflect revised track layouts where additional points are provided for 1435mm gauge line.

In these dual gauge areas Rail Baltica would be constrained as the ERTMS system would be constrained by the underlying block system of the fixed block system. Specifically

1. Line speed would be constrained to the design speed of the underlying fixed block system
2. Capacity would be constrained by the design capacity of the underlying fixed block system

As with large implementation projects such as Rail Baltica, particular caution will need to be placed on specific issues of implementation of the TSI for Control-Command including but not limited to:

- General migration criteria
- Timing criteria
- Implementation: infrastructure (stationary equipment)
- Implementation: rolling stock
- Particular migration paths
- Conditions under which optional functions are required

9.7 Rolling Stock – Noise

Decision 2006/66/EC concerning the technical specification for interoperability relating to the subsystem rolling stock — noise of the trans-European conventional rail system along with the Commission Decision of 4 April 2011 concerning the technical specifications of interoperability relating to the subsystem 'rolling stock – noise' of the trans-European conventional rail system (notified under document C(2011) 658) (Text with EEA relevance) (2011/229/EU) defines the functional and technical specifications related to:

- Noise emitted by freight wagons (limits for pass-by noise and stationary noise)
- Noise emitted by locomotives, multiple units and coaches (limits for stationary noise starting noise, pass-by noise), and
- Interior noise of locomotives, multiple units and driving trailers

In addition, the TSI defines the functional and technical specifications of the interfaces including the conventional rail rolling stock subsystem (locomotives, multiple units and coaches subsystems). The TSI also states the required:

- Operating Rules
- Maintenance Rules
- Professional Qualifications
- Health and Safety Conditions
- Infrastructure and Rolling Stock Registers

All of the defined functional and technical specifications should be taken into consideration and should be able to be met in the eventual design of the Rail Baltica new 1435mm conventional rail line. Particular caution will need to be placed on the urban sections of the railway, since the noise parameters will be more stringent and the existing conditions will be constrained.

Note: The (2006/66/EC) and (2011/229/EU) TSIs include:

1) Limits for pass-by noise for freight wagons in Finland, Estonia, Latvia and Lithuania (Category T1 — temporary) - The noise emission limits for freight wagons are not valid for Finland, Estonia, Latvia and Lithuania. The reason for this is the safety aspects under Nordic winter conditions. This specific case is valid until the functional specification and assessment method for composite brake blocks are incorporated in the revised version of the WAG TSI. That does not preclude freight wagons from other Member States from operating in Nordic and Baltic States.

2) a "Specific case for Estonia, Latvia and Lithuania (Category 'T1' — temporary) - The noise emission limits for all rolling stock (locomotives, coaches, EMUs and DMUs) are not valid for Estonia, Latvia and Lithuania until the revision of this TSI. In the meantime, measurement campaigns will be carried out in these States; the revision of this TSI shall take into account the results of these campaigns.

9.8 Operation and Traffic Management

Decision 2006/920/EC concerning technical specification of interoperability relating to the subsystem "Traffic Operation and Management" of the trans-European conventional rail system includes in particular:

- Procedures and related equipment enabling a coherent operation of the different structural subsystems, both during normal and degraded operation, including in particular train driving, traffic planning and management.
- Professional qualifications which may be required for carrying out cross-border services

The essential requirements cover:

- Safety,
- Reliability and Availability,
- Health,
- Environmental Protection,
- Technical Compatibility.

Alignment of the network operating rules and the qualifications of drivers, on-board staff and traffic managers must be such as to ensure operating efficiency on the trans-European conventional rail system, bearing in mind the different requirements of cross-border and domestic services.

The specification dictates roles and responsibilities for staff who contribute to the operation of the subsystem by performing safety critical tasks involving a direct interface between a Railway Undertaking and an Infrastructure Manager.

Railway Undertaking staff:

- undertaking the task of driving trains (referred to throughout this document as 'driver') and forming part of the 'train crew',
- undertaking tasks on-board (other than driving) and forming part of the 'train crew',
- undertaking the task of preparing trains.

Infrastructure Manager's staff:

- undertaking the task of authorising the movement of trains

In addition, the functional and technical specification includes specific details regarding:

- Vehicle Identification
- Train Braking
- Train Composition
- Freight Vehicle Loading
- Safety Related Communication
- Degraded Operation
- Managing an Emergency Situation

All of the defined functional and technical specifications should be taken into consideration and should be able to be met in the implementation planning and structuring of the Rail Baltica Infrastructure Management organization.

9.9 Telematic Applications for Freight and Passenger Services

This TSI concerns the telematic applications subsystem for freight services shown in Directive 2001/16/EC.

The commercial operation of trains, wagons and intermodal units throughout the trans-European rail network requires efficient interchange of information between the different Infrastructure Managers, Railway Undertakings and other service providers. Performance levels, safety, quality of service and cost depend upon such compatibility and interchange as does, in particular, the interoperability of the trans-European conventional rail system.

The technical specification for interoperability also has an impact on the conditions of use of rail transport by users. In this respect the term users is understood to mean not only infrastructure managers or railway undertakings but also all other service providers such as wagon companies, intermodal operators and even customers.

Last but not least, the benefit of interoperability of the conventional rail system was taken into account to bring about the conditions for greater interoperability between modes of transport, in particular between conventional rail transport and combined rail transport.

The purpose of this TSI is to ensure also that efficient interchange of information is at all times best adapted, with regard to quality and quantity, to changing requirements so that the transport process may remain as economically viable as possible and that freight transport on rail maintains its hold on the market against the intense competition it has to face.

The subsystem Telematic Applications for Freight is defined by Annex II of the Directive 2001/16/EC, Section 2.5(b). It includes in particular:

- applications for freight services, including information systems (real-time monitoring of freight and trains),
- marshalling and allocation systems, whereby under allocation systems is understood train composition,
- reservation systems, whereby here is understood the train path reservation,
- management of connections with other modes of transport and production of electronic accompanying documents.

This TSI takes into account the present service providers and the various possible service providers of the future involved in freight transport as they are for (this list is not exhaustive):

- wagons
- locomotives
- drivers
- switching and hump shunting
- slot selling
- shipment management
- train composition
- train operation
- train monitoring
- train controlling
- shipment monitoring
- inspections and repair of wagon and/or locomotive
- customs clearance
- operating intermodal terminals
- haulage management.

Some specific service providers are defined explicitly in the Directives 2001/14/EC and 2001/16/EC. Since both directives have to be taken into account, this TSI considers in particular the definition of (see also Annex A, Index 6):

"Infrastructure Manager (IM)" means any body or undertaking that is responsible, in particular, for establishing and maintaining railway infrastructure. This may also include the management of infrastructure control and safety systems. The functions of the infrastructure manager on a network or part of a network may be allocated to different bodies or undertakings.

Based on this definition, this TSI regards an IM as the service provider for the allocation of paths, for controlling/ monitoring the trains and for train/path related reporting.

Whereas a "Railway Undertaking" is defined as any public or private undertaking, licensed according to applicable Community legislation, the principal business of which is to provide services for the transport of goods and/or passengers by rail with a requirement that the undertaking must ensure traction; this also includes undertakings which provide traction only.

Based on this definition, this TSI regards the RU as the service provider for operating trains.

The RUs/LRUs must in general have, at minimum, the capability of:

- DEFINING services in terms of price and transit times, wagon supply (where applicable), wagon/intermodal unit information (location, status and the wagon/intermodal unit related estimated time of arrival 'ETA'), where shipments can be loaded on empty wagons, containers, etc.
- DELIVERING the service that has been defined in a reliable, seamless manner through the use of common business processes and linked systems. There must be a capability for RUs, IMs and other service providers and stakeholders such as customs to exchange information electronically,
- MEASURING the quality of the service delivered compared to what was defined: i.e. billing accuracy against price quoted, actual transit times against commitments, wagon ordered against supplied, ETAs against actual arrival times,
- OPERATING in a productive manner in terms of utilisation: train, infrastructure and fleet capacity through the use of business processes, systems and data exchange required to support wagon/intermodal unit and train scheduling.

Summary of Impacts on Rail Baltica

As mentioned before, the Interoperability Directive and its related TSIs are designed to facilitate the "optimal level of technical harmonisation" of the entire EU rail system with a view to improving its competitiveness, for example, by lowering production, acceptance, operation and maintenance costs. The aim is, on one hand, to facilitate international railway services and, on the other hand, to set up common EU-wide rules for conformity assessment and placing in service of infrastructure, fixed facilities and vehicles.

In respect to the Rail Baltica 1435mm railway, the Directive and its related TSIs must set the "optimal level of technical harmonisation" of the entire Rail Baltica system, as well as within each of the three (3) distinct and different Baltic States and in relation to the neighbouring countries Poland and Helsinki.

Table 142 - Key Issues related to Compliance with Interoperability Directives

Interoperability Directives Related to Rail Baltica

Subsystem	Reference	Specification Parameter	Potential Impacts/Risks
Infrastructure	CR INF TSI	Line Layout, Track Parameters, Switches, and Crossings	Adjacency to existing 1520mm gauge tracks, dual gauge track complications, minimum radius of curves in constrained locations, internal (1436mm) and external (1435/1520mm) switching and crossings.
		Track and Structure Resistance to Loads	Resistance of existing bridges and earthworks to traffic loads
		Track Geometrical Quality	Geometrical quality at locations near stations, terminals and facilities where 1520mm gauge exists
		Platforms	Lengths and heights of platforms in existing stations, access and entry/exit to stations and dedicated platform locations
Energy	CR ENE TSI	Power Supply	Overall capacity and grid, substation connections and location on new corridors, sectioning locations, separation sections and return circuits
		Geometry of the OCL and Quality of Current Collection	Contact line systems and interference with adjacent existing electrified 1520mm lines, geometry, pantograph gauge and contact force at cross-overs with existing 1520mm electrification.
Control-Command and Signalling (CCS)	2006/679/EC	On-board systems	ERTMS implications on ETCS functionality, interfaces to internal and external control-command, electromagnetic compatibility
		Track-side systems	ERTMS implications on ETCS functionality, interfaces to internal and external control-command, track-side train detection systems in urban areas/cross-overs of various gauge lines.
Rolling Stock - Noise	2008/68/EC & 2011/229/EU	Noise Emitted by Freight Wagons	Development of new noise TSIs during project development that currently are not mandated based on "Specific Cases" for Estonia, Latvia, and Lithuania.
		Noise Emitted by Locomotives, Multiple Units and Coaches	Development of new noise TSIs during project development that currently are not mandated based on "Specific Cases" for Estonia, Latvia, and Lithuania.
		Interior Noise of Locomotives, Multiple Units and Driving Trailers	Development of new noise TSIs during project development that currently are not mandated based on "Specific Cases" for Estonia, Latvia, and Lithuania.
Operation and Traffic Management	2006/920/EC	Staff/Organization	Establishing appropriate roles and responsibilities for railway undertakings staff and infrastructure manager staff to ensure safety, reliability, availability, health, environmental protection and technical compatibility of the line.
Telematic Applications for Freight and Passenger Services	2001/16/EC	Information Systems & Monitoring	State-of-the-art systems and monitoring devices will be employed and will be required to share data and information with existing information systems at the national level.
		Marshalling and Allocation Systems	Marshalling and allocation systems will need to interface with existing 1520mm gauge freight systems at intermodal terminal locations.
		Management of Connections with Other Modes of Transport	Specifically at transfer points for both passenger services (ports/airports/train stations) and freight services (ports/intermodal terminals).

10 Implementation Issues

10.1 Introduction

The output of this report has been to identify the most desirable options for a north – south rail corridor between Estonia and Poland which will provide for the first time, comprehensive access to the European rail networks. In defining a single option rail solution, it is noted that the project is in the very early stages of development and as such, significant further activity will need to take place before comprehensive decisions can be made which will allow the programme to be delivered.

The Rail Baltica programme will deliver range of economic and social benefits not just to Estonia, Latvia and Lithuania but also to the region as a whole and the European Union in general. In defining the principle activities which need to be addressed within the implementation strategy, it is therefore necessary to ensure that the requirements of multiple stakeholders and both acknowledged and incorporated into future decision making process.

Programme implementation processes at a strategic level could in normal circumstances be seen as a relatively straight forward proposition given the current level of development of the Rail Baltica feasibility study. This study has identified a preferred single option using derived market data information and the application of standard rail transport analysis techniques. It has allowed a range of technical parameters to be developed which has indicated where optimum route alignments may lie and has shown the likely functional requirements of the system itself. This process has allowed a creditable single strategic option to be proposed which meets the critical objectives set at the outset of the study. In moving the proposal forward, scheme promoters must however address not simply the complexity of developing the single option but also must acknowledge the challenges of doing so in a multi stakeholder environment. In this context, future implementation strategy will need to define how the single option is to be refined and establish the relative complex processes within which the programme can be implemented.

The Implementation strategy will address:

- The principle objectives for the next phase of the programme
- The organisational structures required to efficiently deliver and undertake the necessary activities
- The extent to which the economic and social benefits of the single option can be maximised within a range of rail service levels
- Further developments of the technical characteristic of the system which will facilitate design options
- Scheme roadmap

10.2 Objectives of the Implementation Strategy – next phase

The current feasibility study has in the simplest terms provided the economic and technical justification for a single option route alignment to be considered further. Given the strategic and feasibility nature of the study, it cannot be assumed that the route identified is now in a position where more detailed design can be considered. The study has simply identified the broad parameters of a major rail programme which can now be further developed and refined as projects within their own right. The identification of a single route option cannot be considered as the definition of a single option for a rail system. This requirement is the starting place for the next phase of the Rail Baltica Programme.

It is recommended that the principle objectives of the Rail Baltica implementation should encompass the principle elements:

- 1) The definition of an overriding sponsorship remit for the Rail Baltic programme in general and the key individual national programme elements. The sponsor remit must address critical issues which will include:
 - Confirmation of the strategic, social and economic benefits required from the scheme at a EU, regional and national level – the critical measures of success
 - Definition of how the programme will achieve a strategic fit with local, national, EU and international transport policies and other strategies being employed
 - The definition of critical programme outputs from a transportation perspective including the definition of rail service requirements and interface strategies with all other modes including conventional rail, road, sea and air
 - An acknowledgement the quality standards required from the programme both in terms of output requirements and whole life cost principles
 - An understanding of scheme prioritisation within the context of Rail Baltica and also in respect of other critical national and international objectives

- Recognition of the boundaries of the programme. This is a critical issue for Rail Baltica given the likely wide spread impact both within the countries concerned and within a wider stakeholder environment. Strict boundaries will need to be established with prevents scheme creep and ensures costs and programme risks are contained. Boundaries will need to be defined geographically, financially and in project terms.
 - A definition of what changes will be acceptable to adjoining rail networks and the definition of what processes should be used to address these issues.
 - A requirement to define basic programme timescales acknowledging the impact of external issues including national and EU priorities, availability of finance and other critical resources
 - The requirement to adopt national and EU standards including those associated with interoperability.
- 2) The development of a refined statement of benefits and costs arising from the preferred route option. This objective is required to allow the business case for the proposal to be further refined incorporating:
 - More detailed cost information as this becomes available
 - Refined demand information as the rail service specification is refined
 - Application of geographically focused economic and social impact data including derived external benefits (incorporating sustainability criteria)
 - The definition and delivery of a business case for the Rail Baltic programme which is capable of defining within laid down probabilistic ranges the overall scheme risk profile.
 - 3) An assessment of the current capability of the existing systems and railway facilities which would be impacted on or be part of the Rail Baltica programme. This requirement is needed to identify any emerging constraints in respect of the capability of existing asserts of facilities which would be required as a key component of the overall programme.
 - 4) The development of stage 1 single option designs to route sections noting the overall programming phasing requirements. These designs will be required to generate to a satisfactory standard, programme costs. In addition they will provide the basis on which market testing can be carried out in respect of future scheme procurement. Of particular concern will be the need to ensure designs conform to national, EU and international environmental and sustainability requirements.
 - 5) The Rail Baltica programme will consist of a number of individual (but in their own right) major projects. Under the single option developed in this study, there will be a range on individual programme options. As part of the overall programme assessment, each individual option should be assessed in respect of its ability to meet both the overall programme requirements and those identified at a local level. This process will require value engineering studies to be carried out of system wide component options and geographically defined route choices.
 - 6) Refinement of system functional specifications. Report into changes which will emerge the functional specifications including detailed assessment s of operating and technical systems required to meet commercial objectives. It is noted that Rail Baltica may be developed over a number of time periods and as such, the demands placed on the system and the emergence of new technological solutions is likely to require refinements to functional specifications at a local and regional level.
 - 7) A report into the constructability of the whole programme and the individual components. This ongoing report is required at all stages of the programme to confirm not only are the individual design proposals capable of meeting the commercial specification, but also to ensure that it is feasible to build. The criticality of this element should be noted given some of the challenging terrain through which the proposed routes will transverse. The report will be a key component in assessing overall programme construction risk.
 - 8) The definition of a robust national and international consultation strategy.

10.3 Organisational Structure

As discussed previously, the Rail Baltic programme is in its early stages of development and significant activities will need to be undertaken prior to concluding final service specifications, technical requirements, route alignments and final single option design components. Such a situation is commonplace amongst all major transport projects. The position is however complicated by the following factors:

- the presence of up to 4 nation stakeholders in addition to other national interested parties
- the existence of differing regional economic objectives
- the need to accommodate the requirements of a range of stakeholders including potential users, railway undertakings, infrastructure managers
- an acknowledgement that the programme will challenge existing regional transport provision and will impact on current rail solutions employed

Setting these issues in context, it is important to note the high degree of co-operation which has been achieved to date between the project countries and the acceptance that robust arrangements need to be in place to facilitate project delivery including construction and finance. Further, the strategic objectives of the European Union, their ongoing support and the existence of mandatory technical standards will have a significant positive impact on programme delivery. The mandatory requirement to conform to interoperability requirements will do much to remove technical risks associated with the introduction of new systems. The ongoing political support of the EU will also provide support in mitigating some financial risks associated with the programme.

10.3.1 Establishing a Programme Steering Group (PSG)

It is recommended that Rail Baltica development should as now be overseen by a programme steering group (PSG). The PSG function would be to have overall control of the strategic delivery of the Rail Baltica programme. The PSG would comprise of representatives from the principle member states and assisted by other key stakeholders including the European Union. The PSG would be responsible for:

- establishing the overall programme objectives and time scales
- provision of programme finance
- establishing the relevant delivery organisations and appointment of key personnel
- defining overall programme requirements depending on project phase and communicating these instructions to the relevant delivery organisations
- undertaking strategic review of programme progress and overall reporting to Governments and European Union agencies

It is suggested that in proposing the necessary steps for future Rail Baltica implementation, and overall organisation assuming responsibility must recognise the need to control development in a manner which allows technical progress to be made in a manner which is free from undue short term influences. In this context, the PSG would need to define at the earliest opportunity:

- group structure and membership
- protocol for defining overall programme objectives taking into account EU, regional and national objectives
- processes for dispute resolution and arbitration
- protocol for communication with delivery agencies
- processes for review, monitoring and reporting
- financing arrangements
- governance protocols
- legal structures and commercial agreements

10.3.2 Establishing a Integrated Programme Organisation (IPO)

Whatever development option is chosen, it is recommended that an integrated programme organisation (IPO) is established at the earliest opportunity with the principle objective of facilitating project development. The IPO must be a technical based organisation operating within defined terms of reference and be of short term of regional, national and local influences. International experience suggests that an independent IPO will be able to execute programme functioned quickly within the terms of reference. Project activities can be effectively undertaken without time consuming and costly interventions.

The objectives of any IPO would be to:

- work within the terms of referenced agreed
- refine and establish critical project success criteria and agree programme specifications
- undertake all necessary activities associated with programme development and define critical programme challenges and milestones
- define programme design requirements
- establish organisational proposals for undertaking stakeholder consultation and incorporating emerging requirements
- establish at appropriate timing, programme delivery structures

The IPO should be both organisationally and financially separate and independent from existing national and international bodies. Its senior organisation would be responsible to its principle shareholders which would in this case be the members of the PSG. Never the less, the organisation would be free to undertake its own management affairs subject to normal governance arrangements and terms of reference.

By separating the functions of strategic control and programme, the delivery risk which has surrounded many international projects in the past can be more effectively controlled. By allowing the IPO to focus on delivery within a tightly set objectives and financial protocol, inefficiencies arising from the need to secure agreements by from all parties, can be controlled. Such structures allow decisions to be taken by the most appropriate bodies and facilitate effective programme development.

10.4 Maximising programme economic and social benefits

The development of the Rail Baltica programme will release a range of social and economic benefits for the region and the individual countries involved in the programme. In practice such benefits can only be realised through the actual rail service offered by the system. In practice, the service capability of the system, either for freight or passenger services will ultimately be determined by the system technical specification. In the early stages of programme development, it is critical that the correct technical specification is defined which represents a balance being achieved between:

- the strategic social and economic objectives of Rail Baltica
- the commercial train service requirements for passenger and freight services
- the capability of existing rail technology
- the pre existing topographical and environmental constraints
- future changes to commercial requirements
- future changes to rail capability
- programme risk
- availability of funds

The current study has identified these elements at a strategic level in order to define route and corridor preferred options. There are however three critical issues which imply that these issues must be continually be addressed within the programme implementation plan. There include:

- recognition that the current study is at a feasibility level
- there are likely to be emerging commercial options at a micro route level which need to be addressed
- the acknowledgement that market, commercial and political objectives are continually changing

- the ability to take on in planning terms changes to the cost and technical performance of rail systems

Given the life expectancy of installed rail systems, it is critical that emerging technical plans reflect the most up to date political, economic and social requirements. Once railway systems are delivered, change is both technically difficult and expensive. In this context, the best system delivered is one which both meets existing commercial, social and political objectives and is effectively future proofed. To achieve this aim, considerable focus must be given in the planning process.

On completion of parts of the rail network, it may be possible to implement interim rail services which will provide a flow of benefits to the programme prior to final completion. Such a staged approach to service implementation for both freight and passenger services is an acceptable railway strategy. Such a program needs to be an integral part of the technical implementation strategy which will be adopted by Rail Baltica.

The extent to which Rail Baltica can adopt an incremental approach to train service delivery will be dependent on:

- The construction methodology and staging employed
- The extent to which the emerging infrastructure provides viable service potential
- The impact on the overall construction program

As a general rule of thumb, interim services should only be provided if the final planned infrastructure layouts permit such operation. In general terms it is unlikely that interim service provision would warrant the construction on new and incremental infrastructure however this would need to be examined on a case by case basis. The time frame for the construction of the system and the extent to which it operates through Poland, Lithuania, Latvia and Estonia suggests that there will be political, and social advantages of providing interim rail services. The extent to which this can be made economically feasible will be determined in part by programme. In this context it is recommended that further analysis be given the program staging options and that initial assumptions within the planning process are made in respect of early service introduction. An early assessment will need to be made in respect of the impact on program staging given that it may be more beneficial from a service perspective to commence development at less advantageous location from a constructability perspective.

In all cases it is recommended that any decision is subject to ratification from an economic, political and program perspective

10.4.1 Establishing an Independent Review Group (Business Case)

It is recommended that one of the key objectives of the PSG would be to put in place an independent review group (IRG) which would allow programme business objectives to be kept under review. The role of an independent review board would be to provide the PSG (and through them, the IPO) with the very latest information on:

- emerging national, regional and international commercial requirements in terms of rail systems looking ahead in a 5, 10 and 30 year time period
- a review of the current and future technical capabilities of rail systems which may warrant inclusion within the Rail Baltica programme.

It is recommended that the international group be comprised of independent rail and commercial experts who can draw on both regional and international experience. The IRG should also have access to all relevant international standards which are appropriate to Rail Baltica and also have the facility to make further recommendations on incorporating east – west commercial traffic opportunities. It is suggested that the independent review board should meet on a quarterly basis to provide effective input into the programme.

10.5 Developing programme technical characteristics

The Integrated programme organisation (IPO) should have relatively high degrees of autonomy to pursue the required project delivery phases. Not only should the IPO be free (subject to normal rules) to propose the most relevant system technical solution, but it should also be free to develop project phasing proposals and appropriate implementation strategies.

10.5.1 Establishing an Independent Review Group (Technical)

In acknowledging this independence, control of development activities should be managed through the development of an additional independent review group (IRG) which would act on behalf of the PSG to confirm that at all stages of the programme development, the systems, operational plans and routes were capable of meeting the required service level objectives.

In this context, the PSG would need to define at an early stage (and incorporate it into any legal development agreements) critical service level specifications. These would include:

- i) service frequency
- ii) overall infrastructure capacity availability
- iii) service type (freight and passenger)
- iv) point to point journey time
- v) system reliability
- vi) system availability

It would be a requirement of the IPO to undertake relevant measuring and analysis activities which would confirm to independent inspection that these parameters were being met at all stages of programme development.

It is recommended that the second IRG should be established at an early stage and report directly to the PSG. The IRG should comprise of railway experts who have operational experience in the delivery of rail systems. IRG experts would need access to relevant system modelling and support tools at all stages of the process.

10.6 Summary of critical implementation issues

The following elements are considered critical implementation issues which would need to be addressed at the next stage of the Rail Baltica programme:

- Programme output definition – the Rail Baltica Steering Committee, in cooperation with external consultants, drafts an overall outline of the Programme output (organizational structure, potential financing schema, risk management overview, pre-planning budget, pre-planning time-line, etc.)
- Programme organisational structure, governance arrangements and reporting structures – the Rail Baltica Steering Committee nominates and establishes the PSG and IPO teams, as well as the two independent review groups.
- Programme financing options – the PSG and IPO teams work to develop the financing and funding schema to be presented to the Member States and the EC for general approval.
- Implementation of programme risk management strategies – the IPO works to develop the Risk Management Plan and presents it to the PSG and Member States for approval.
- Resource planning with particular reference to the early identification of long lead items – the IPO develops a resource-based critical path implementation programme for review and acceptance by the PSG and follows with a staffing plan for internal resources and external consultancies.
- Implementation of robust and effective stakeholder consultation programmes at all stages of the process – the IPO and PSG solicit the involvement of a public-relations consultant to assist in establishing the necessary public relations campaign for the programme.
- Integration strategies with existing rail systems throughout the system – the IPO establishes a system-wide audit of all existing systems and planned improvements to be an input into the Options Assessment and Definition phase of Pre-Planning.
- Impact assessment of programme on regional transport market provision and competing modes – the IPO conducts, in cooperation with external consultants, a detailed transport market analysis to further justify the transportation models developed during the feasibility study.
- Identification and consultation on programme phasing requirements noting commercial, social and political imperatives – the IPO shall enhance the critical path implementation programme with required interfaces at the national, regional and municipal levels to streamline the planning, land expropriation and design approvals processes.

- Definition and establishment of robust co-ordination arrangements which provide accessibility to all interested parties but facilitates programme delivery – the IPO established monthly and quarterly workshops with project stakeholders to facilitate decision-making and information exchange.
- Ongoing assessment of contribution to environmental and sustainability objectives - the IPO engages the independent review groups to establish an assessment methodology and on-going monitoring procedures

10.7 Implementation road map

The following Implementation Road Map provides an indicative timeframe for the implementation of the Rail Baltica programme. At all stages of the programme, options will exist for decision review criteria to be applied by the PSG. It should be noted that many tasks can be undertaken simultaneously as is conceptually defined in the following Rail Baltica Implementation Programme.

Table 143 - Implementation Road Map

	Task	Duration	Notes
1	Review and confirm high level feasibility report	6 months	Accepting strategic objectives and preferred routing will require significant consultation
2	Establish PSG, IPO and the 2 IRGs	6 months	Agreeing composition, terms of reference and governance structures will be complex but can be undertaken in parallel with task 1.
3	Strategic stakeholder consultation	6 months	A critical process to ensure all parties endorse strategy
4	Definition of programme plan, resourcing and financing arrangements	9 months	Establishing at a strategic level, overall structures for progressing with the programme including high level procurement and financing strategies. Opportunities to propose financing arrangements including PPP.
5	Review of options assessment for individual projects within the programme	12 months	Process designed to allow scheme to move towards single option design for all components of the system. Opportunity to test proposal option[s] and apply value and risk management processes
6	Environmental Impact Statement	24 months	Environmental Impact Assessment of proposed option, including alternative solutions. Strategic environmental assessment has to be done by municipalities in parallel.
7	Spatial and Regional Planning	36 months	Detail planning and reservation of territories
8	Single option design	24 months	Activity to cover all elements
9	Scheme procurement	48 months	Rolling programme to procure all necessary elements associated with scheme construction. Land acquisition will be a significant issue and consideration will need to be given to corridor reservation and acquisition.
10	Construction	60 months	
11	Testing and commissioning	6 months	

The times indicated on the road map are purely indicative at this stage of the process and are dependent on a wide range of factors. These include:

- Requirements at a national level to introduce relevant legislation which facilitates the construction of the new rail system
- The ability of the States to comply with relevant European legislation particularly in relation to environment
- The extent to which there is widespread stakeholder support for the program and the effectiveness of engagement strategies
- The ease by which the required corridors can be acquired
- The extent to which effective governance arrangements can be defined

- The availability of program financing
- The availability of geo technical and other relevant data
- The extent to which international standards can be transposed into local standards.
- The extent to which local construction difficulties are encountered

In addition, consideration will have to be given to the local availability of construction resources including skilled personnel. In this context, any times given should be regarded as illustrative. General comment can be made however on the normal time it takes a new railway to move from inception to final delivery. For planning purposes, a ten to fifteen year time horizon would be considered normal.

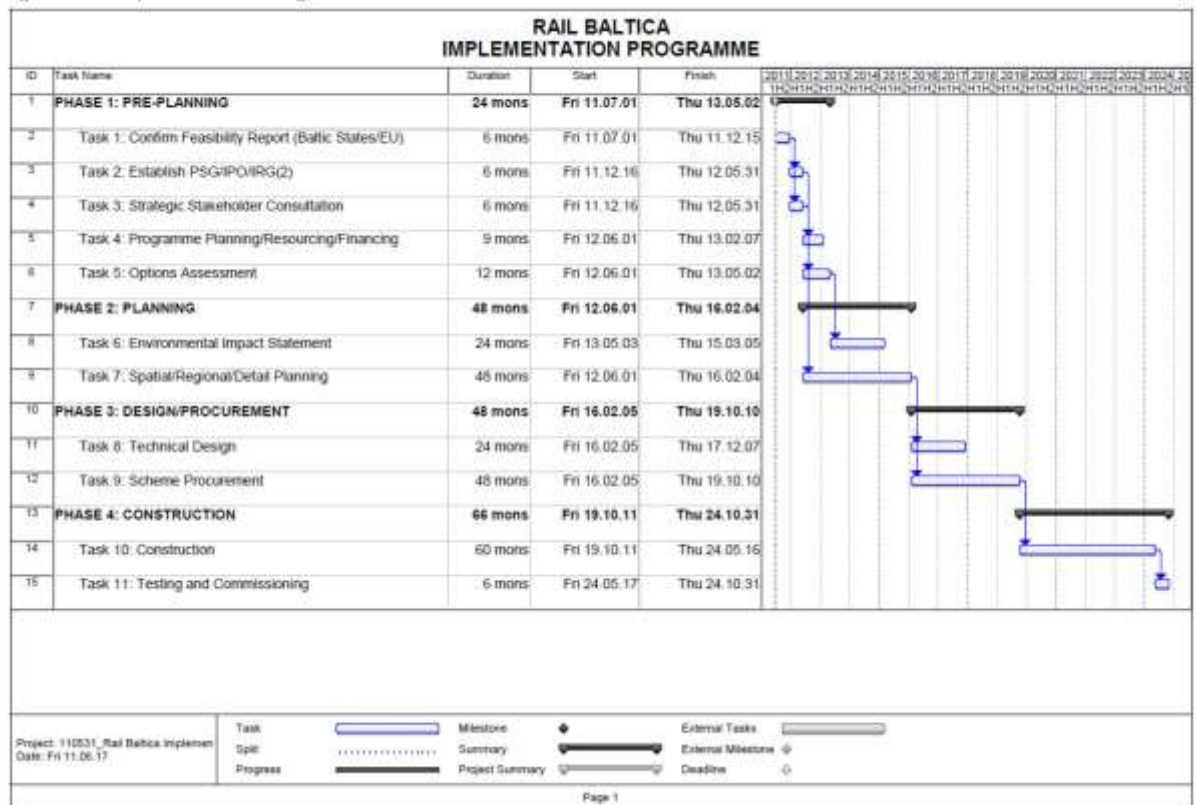
In Poland and Finland, the rail system is gradually being upgraded including those lines providing access to rail Baltica. In this context, it should be assumed that Polish and Finish rail capability will be ahead of any developments within Rail Baltica. In order to ensure full functionality in terms of comparable system capability, early harmonization of development plans between the two networks is recommended.

Figure 54 – Planned Rail Infrastructure Improvement Projects in Poland

SIEĆ KOLEI DUŻYCH PRĘDKOŚCI W POLSCE



Figure 55 – Implementation Programme



10.8 Risk Register

In considering the overall objectives of the project and the critical implementation issues the PSG will need to consider the following issues:

- Adopting a phased approach to delivering the network
- Setting up an effective program delivery organisation
- Getting risk transfers correct between bodies responsible for delivery
- Ensuring that there is strong cross party political support
- Early identification of local funding opportunities
- Identifying system integration issues
- Establishing early the operational and commercial arrangements
- Understanding the impact of and on complementary and competing transport modes
- Defining the correct procurement strategy with particular reference to unbundling elements of program delivery

Additional risks to be considered are described in the Risk Register.

Table 144 - Risk Register (1 of 2)

Rail Baltica Project Risk Register													
Description of Risk	RISK IMPACT (1 to 5)										Comments (include levels of evidence or business impact, e.g. from pending legal)	Likelihood	
	CAPEX	OPEX	Revenue		Passenger		Programme	Quality	Safety	Financially	Legality	Approval	
			High	Low	High	Low							
	5	5	+40%				High delay to opening			High impact			1 Very Unlikely (0-20%)
	4	4	+30%				High delay to opening			Medium impact			2 Unlikely (21%-40%)
	3	3	+20%				High delay to opening			Low impact			3 Neutral (41-60%)
	2	2	+10%				High delay to opening						4 Likely (61%-80%)
	1	1	+5%				High delay to opening						5 Very Likely (81%-100%)
Approvals													
The Estonian Technical Supervision Authority delays in issuing construction permit (a) for railway civil engineering works							1				3	3	3
Delays in approval of technical plans							3				3	3	3
Municipalities delay issuing construction permit (a) for buildings necessary for using the railway (station buildings, access roads)							1				3	3	3
The State Railway Technical Inspection delays issuing construction permit (a)							1				3	3	3
Delays in approval of technical plans							3				3	3	3
The Lithuanian Railways Inspection delays issuing construction permit (a)							1				3	3	3
Delays in approval of technical plans							3				3	3	3
Legal													
Legal action against technical plans							3				3	3	3
Full environmental assessment required							3						4
Prohibition of action due to environmental concerns							4			5	5		2
Legal action against environmental assessment or approval of action							3			3	3		3
Legal action against land expropriation							3			3	3		3
Legal action in respect of the price for the expropriated land							4			1	1		4
Increases of infrastructure access fee				1									4
Misalignments among national as well as EU laws							2		1	3	5	5	1
Issues regarding land expropriation							5		1	3	5	4	3
Financing													
Negative credit rating changes for Baltic states	3	3								2			1
Changes in financing structure (for example, due to rise of construction cost, state of EU funding, etc.)	1									2			2
State or interest rates	2									2			3
Contractor insolvency	1	1					3	4	4	1	1		1
Contractor price rises (road, rail, etc.)	3									3			3
Lack of financing of the governments of each involved country							3			5			3
Lack of financing of the local municipalities of each involved country							3			5			3
Lack of EU financing in the time period of 2014 - 2020 (EU Cohesion Fund)							4			5			3
Lack of EU financing in the time period of 2014 - 2020 (ERDF - IT policy)							4			5			3
Lack of EU financing in the time period of 2014 - 2020 (ERDF - Outlook Project)							4			5			3

Table 145 - Risk Register (2 of 2)

Description of Risk	RISK IMPACT (1 to 5)											Likelihood			
	CAPEX	OPEX	Revenue		Passenger		Programme	Quality	Safety	Financially	Legally		Appropriately		
			Region	National	Region	National									
1			+40%				> 10 year delay to opening	High impact					Comment (provide details of qualitative or quantitative impact e.g. from sensitivity tests)	1 Very Unlikely (0-20%) 2 Unlikely (21%-40%) 3 Neutral (41-60%) 4 Likely (61%-80%) 5 Very Likely (81%-100%)	
2			+30%				> 5 year delay to opening								
3			+20%				> 2 year delay to opening	Medium impact							
4			+10%				> 1 year delay to opening								
5			+5%				> 1 year delay to opening	Low impact							
Traffic															
Economic growth in the region is lower than expected				3	2	1	2							a 1% reduction in GDP growth will lead to a 0.6% reduction in passenger demand	2
Competing Party companies reduce price for freight truck movements to decrease market share				3	2										3
Environmental															
EA identifies unacceptable impacts e.g. waste disposal, air pollution, etc.	1							1	2		3	3			1
Traffic noise limits exceeded									2		3	3			2
Not approved changes in land use plans/land transformation not possible								2			3	3			2
Significant impact to Natura 2000 sites (crossing is not allowed)								3			3	3			4
Failure to implement ecological mitigation, particularly in relation to protected species and habitats (outside Natura 2000 sites)								2			3	3			3
Potential delays arising as a consequence of seasonal constraints on activities related to flora and fauna								2			3	3			4
Potential for objections by residents from environmental impacts (e.g. loss of property, noise, visual impact of structures, effects on countryside) triggering additional mitigation								2	1			3			4
Failure to implement mitigation measures for cultural heritage sites								2				3	3		3
Design															
Updated design reveals need for additional land	1							2		1	2				2
Ground investigation reveals conditions requiring more complex design solutions	3							1			2				3
TSD used as basis for outline design is not implemented or is implemented in changed version	1							1			1				2
Signalling system required to meet interoperability rules cannot be implemented at dual gauge sections of track	2							1		2	2				3
Use of mixed catenary cannot be achieved in dual gauge sections	2							1			2				3
Partners agreeing environmental mitigation measures	1							1			1	1			4
Constructability															
Ground conditions, unforeseen geo environmental issues, contamination, etc. that cause delay to construction programme and additional costs for removal, handling and appropriate disposal of materials, etc.	3							1		2		1	1		2
Access to sections requiring dual gauge going programme restricted	1							2				1			4
Restrictions on working hours imposed due to noise in urban environment	1							1				1			2
Construction Risks															
Unforeseen ground conditions	1							1							3
Unidentified Utilities discovered	1							1			1				3
Unpredicted hazardous events	1							1			1				3
Problems achieving track access for dual gauge sections	1							1			1				4
Unpredicted archaeological finds	1							1							2
Temporary permit/acquisitions issues	1							1				2	2		2
Delays caused by utility diversions	1							1							4
Market changes in prices of materials and labour	3										2				3
Health and Safety risks of construction workers	1							1			1				4
As construction in stages risk of poor fit in of adjacent stages	1							1		2	2		2		3
Local unavailability of skilled workers and contractors	1							1		3	2				3
Operation															
Rolling stock purchase/lease costs higher than expected			3												4
Fuel Cost increases			2												5
Labour cost rise			2												3
Maintenance															
Extreme weather events increase maintenance costs			3							3	2				2
Administrative															
Agenda synchronisation among the involved countries and the respective governments								4			3	3	5		3
Potential language issues for coordination of the administrative issues								4			3	3	5		2
Political															
Superficial discrepancies and incorrect interpretations of the projects due to the project used for political intrigues and election period								4			3	1	2		3
Lack of the cross border cooperation experience								4		3	3	3	2	3	4
Negative attitude from the general public								4		1	1	1	1	2	4
Non equal level of priority of the project in each of the countries								4		2	1	4	4	4	3

11 Conclusion

An interoperable North-South railway corridor linking the Baltic Countries with Poland and the rest of the EU rail network has been seen by many as pivotal from the perspective of development of the railway transport mode in the region. The idea of Rail Baltica first appeared in 1994 in the joint political document "Vision and Strategies around the Baltic Sea 2010" as an important element for spatial development in the Baltic Sea Region.

Initially over 20 different route segments were considered before condensing them down to 4 key route options, designated the red, orange, yellow and green routes. The red and yellow routes were for the most part on new alignments the primary difference between them being in Estonia where the red route passes through Pärnu and the yellow route passes through Tartu. The orange and green routes followed for the most part the existing route corridors and again the primary difference is in Estonia where the orange route passes through Pärnu and the green route passes through Tartu.

For each of the four options freight and passenger demand was assessed along with other issues including environmental impacts and the wider economic benefits, based upon an initial assumption of a mixed service, with passenger trains every 2 hours and freight trains running predominantly during the night. The results of the assessment showed that for passengers the yellow option would be best. The reasons for this were that it offered a fast journey time and picked up a significant internal demand at Tartu. For freight the greatest demand was seen on the red route predominantly as a result of the shortest journey time. The key issue with freight demand was however found to be price.

A full qualitative assessment of each route option was undertaken taking into account the wider economic benefits, the potential planning impacts and environmental issues. From this analysis it was recommended that the red route option should be investigated further, in the form of a detailed Cost Benefit Analysis (CBA) as it was felt that it offered the potentially most viable solution.

As stated above the red option is primarily on a new alignment passing through mainly agricultural and forest land. Whilst it passes through a number of Natura 2000 sites and this will have an effect on the planning process it is not anticipated that this will present a major problem to the projects implementation. Obviously a full Environmental Impact Assessment will have to be undertaken as part of the future project development.

The results from the CBA, based on the assumptions made for the project are such that the project can be considered as generally viable. With an overall discount rate of 5.5%, there is a positive NPV of 1,368M EUR, at 2010 prices, and a benefit cost ratio of 1.75. The corresponding EIRR is 9.3%. However, in normal circumstances to attract EU funding for transportation projects the EIRR would normally have to be greater than 11.0% and the BCR higher. Political factors will be a serious factor in the future of this project both in terms of the desire of the EU to link the Baltic States with the rest of the EU using a standard gauge railway and in terms of the individual Baltic States whose development could be stimulated by this project.

In addition, the Financial Analysis shows the project having a positive cumulative cash flow in all years suggesting that at this level the project is financially stable. Financial indicators of the investment, without EU funding, show negative results emphasising the importance of securing the EU funding. Although, FRR/K on a consolidated basis (IRR of national investments), which has been calculated in accordance with method set out in the EC Guide to Cost Benefit Analysis of Investment Projects is 3.10%.

The figures also show that there should be no need for subsidies during the operational period, although in order to help stimulate initial demand, in particular for freight traffic subsidies may be helpful during the start up period. On a country basis it is seen that the best results are in Estonia. This is not particularly surprising as passenger benefits are accrued by having three stations; Tallinn Central, Tallinn Airport and Pärnu as opposed to one station in Latvia and two in Lithuania. In addition freight demand is strong and therefore the benefits higher as a result of the strong flows from St Petersburg and Finland. Construction costs are also lower in Estonia as there are no major structures required.

Sensitivity tests were run for the CBA on the whole route focussing on the key variables of capital cost, spend profile, operation and maintenance costs, demand, cost of time savings and GDP growth. With each parameter change the NPV remained positive, but in the case of a 50% freight demand drop only just. There is no reason to believe that most of these variables are correlated; however, it is possible that some of them will be downside whilst others are upside at the same time. For this reason, to assess the likely results of parameter fluctuation a risk analysis was conducted using @Risk which uses a Monte Carlo simulation approach. The result of the risk analysis is that there is a more than 95% chance that the NPV will be positive.

The project should be able to be implemented to comply with the Technical Standards of Interoperability, but certain parameters will need to be carefully engineered in relation to infrastructure, energy, and control-command and signalization systems. The

Table 146 - Economic Analysis Summary

Economic Impact (€000,000)	Rail Baltica Total		Rail Baltica Estonia		Rail Baltica Latvia		Rail Baltica Lithuania	
	Discounted Cost or Benefit	Share in Total Costs/ Benefits	Discounted Cost or Benefit	Discounted Cost or Benefit (per km of track)	Discounted Cost or Benefit	Discounted Cost or Benefit (per km of track)	Discounted Cost or Benefit	Discounted Cost or Benefit (per km of track)
Cost to Infrastructure Manager/Government								
Capital / Investment Costs	1,886	103%	565	2.47	648	2.76	674	2.55
Residual Value	-117	-6%	-34	-0.15	-43	-0.18	-41	-0.16
Maintenance Costs	61	3%	19	0.08	20	0.08	22	0.08
Benefit to Manager								
Track access charges	521	16%	108	0.47	111	0.47	125	0.47
<i>Passenger</i>	170		35	0.15	36	0.15	41	0.15
<i>Freight</i>	351		73	0.32	75	0.32	84	0.32
Benefit to Operator								
Passenger Operator								
Operating costs <i>(including track access charges)</i>	-372	-12%	-77	-0.34	-79	-0.34	-89	-0.34
Revenues	605	19%	129	0.56	160	0.68	215	0.81
Freight Operator								
Operating costs <i>(including track access charges)</i>	-685	-21%	-142	-0.62	-146	-0.62	-164	-0.62
Revenues	1,142	36%	353	1.54	339	1.44	322	1.22
Benefit to Users								
Value of Time Savings	1,158	36%	397	1.73	340	1.45	284	1.08
<i>Passenger</i>	340		135	0.59	88	0.38	71	0.27
<i>Freight</i>	818		262	1.14	252	1.07	213	0.81
External Impacts								
On Safety (Accidents)	336	11%	116	0.51	105	0.44	89	0.34
Air Pollution	148	5%	35	0.15	29	0.13	77	0.29
Climate Change	342	11%	117	0.51	108	0.46	85	0.32
Total Costs	1,829		550	2.41	625	2.66	654	2.48
Total Benefits	3,198		1,034	4.52	967	4.11	944	3.58
Net Present Value (NPV)	1,368		484		342		289	
EIRR	9.3%		9.7%		8.4%		7.9%	
Benefit/Cost Ratio	1.75		1.88		1.55		1.44	

Rail Baltica Final Report

Volume II

Appendix A-F



Co-financed by the European Union
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Rail Baltica Final Report

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Appendix A – Economic Development Study

1.1 Macro – Economic Data

1.1.1 Population Trends in the Baltic Region

As well as the Baltic States and Poland population trends have also been examined in Germany, the St. Petersburg region and Finland as it is considered that Rail Baltica will create demand in both the freight and passenger sectors within these regions.

1.1.2 Historic data

Most of the countries in Eastern Europe and the former Soviet Union have populations that are aging rapidly. The most striking case is the Russian Federation, where the population has already fallen from 149 million in 1990 to 142 million in 2010.

This aging trend is the consequence of demographic transition, which is when populations progress from pre-modern regimes, where both mortality and fertility are high, to post-modern regimes, where both mortality and fertility are low. The cause of the transition lies in the control of epidemics and contagious diseases, which eventually contribute to lower mortality, and in the processes of modernization, which leads to lower levels of fertility.

The timing of the demographic transition has varied in different regions of the world, but there is a global trend toward higher life expectancy, lower fertility, and the resulting aging of population distributions. As is the case for industrial countries, most countries in Eastern Europe and the former Soviet Union have either completed their demographic transition or are on the path to completion.

In fact, the most rapid aging during the next two decades worldwide will be in Eastern Europe and the former Soviet Union because of unprecedented declines in fertility and the increases in life expectancy of the past decades¹.

The population of the countries related with the Rail Baltica project has fallen from 139.4 million people in 2000 to about 138.6 million in 2009, a decrease of 0.6%. It should be noted however that the population trends in the region have not been homogeneous. For example during this period Finland experienced an average annual growth of 0.33% whilst Latvia's average annual growth was negative -0.58%.

Table 1 - A.1 Population changes over years 2000 to 2009 (thousands)

Population, thousands							
Country / Year	Finland	Estonia	Latvia	Lithuania	St. Petersburg region	Poland	Germany
2000	5 181	1 372	2 382	3 512	6 429	38 254	82 260
2001	5 195	1 367	2 364	3 487	6 395	38 242	82 440
2002	5 206	1 361	2 346	3 476	6 361	38 219	82 537
2003	5 220	1 356	2 331	3 463	6 324	38 191	82 532
2004	5 237	1 351	2 319	3 446	6 284	38 174	82 501
2005	5 256	1 348	2 306	3 425	6 253	38 157	82 438
2006	5 277	1 345	2 295	3 403	6 225	38 125	82 315
2007	5 300	1 343	2 281	3 385	6 209	38 116	82 218
2008	5 326	1 340	2 271	3 366	6 201	38 136	82 002
2009	5 351	1 340	2 261	3 350	6 214	38 167	81 959
CAGR (2000 - 2009)	0,33%	-0,23%	-0,51%	-0,46%	-0,33%	-0,02%	-0,04%

Data source: National statistical bureaus

1.1.3 Forecast

The changes in fertility and life expectancy have shaped the current demographic situation in the region, determining population sizes, growth rates, and population structures.

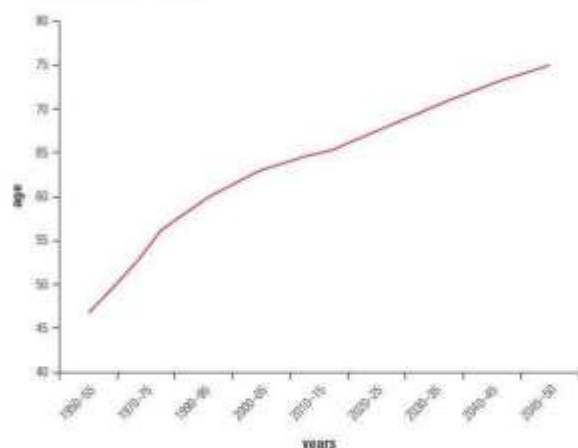
¹ World Bank Report „The Demographic Transition in Eastern Europe and the Former Soviet Union“

The rapid declines in fertility even among countries that already had very low levels of fertility, have meant that relatively smaller cohorts were being added to the national populations and because longevity has continuously improved, especially in those countries with already long life expectancies, it has expanded population numbers above all in the upper age groups. The net result of these changes has been a slowdown in the growth rate of populations and an increase in the proportion of the elderly in the total population.

Population in Eastern Europe is aging rapidly. By 2025, the median age will be more than 10 years greater than it is now in about half of the countries in the region. In 18 of the 28 countries in the region, the population will actually shrink by 2025.²

The number of elderly people is already high in many countries and will continue to rise during the next two decades. For example, in Poland, the proportion of the population over 65 years old is projected to increase from 13 percent in 2005 to 21 percent in 2025.

Figure 1 - A.1 Global Life Expectancy, 1950 -2000
Global Life Expectancy, 1950-2050



Source: United Nations 2005.

The aging process has been occurring for many decades in most countries in Eastern Europe and the former Soviet Union and is expected to continue to be the major demographic phenomenon during the next 25 years and beyond. As elsewhere, the two primary contributing factors have been significant declines in fertility and major improvements in longevity, resulting from advances in healthcare. The effect of those changes on both the size and the structure of the population in the region's countries have been substantial.

The forecast of population trend has been undertaken for the following countries and regions:

- (1) Finland;
- (2) Estonia,
- (3) Latvia;
- (4) Lithuania;
- (5) Poland;
- (6) Germany;
- (7) The St. Petersburg region.

In order to estimate the population trend we have gathered and revised the forecasts prepared by the National Statistical Bureau of each country, EUROSTAT and the United Nations, and used a simple linear regression model based on the historic data. It should be noted that all forecasts were rather similar, varying by no more than 15%.

² World Bank Report „The Demographic Transition in Eastern Europe and the Former Soviet Union“

The table below reflects the average forecast population from the various sources mentioned above.

Table 2 - A.2 Population Forecast (thousands)

Year / Country/	2015	2020	2025	2030	2035	2040	2045	2050	CAGR (%)
Finland	5 420	5 470	5 519	5 569	5 619	5 668	5 718	5 768	0.2
Estonia	1 325	1 313	1 301	1 289	1 277	1 265	1 253	1 242	-0.2
Latvia	2 200	2 152	2 104	2 056	2 008	1 960	1 912	1 864	-0.5
Lithuania	3 248	3 164	3 080	2 995	2 911	2 827	2 742	2 658	-0.6
St. Petersburg region	6 059	5 927	5 796	5 665	5 533	5 402	5 270	5 139	-0.5
Poland	37 637	37 118	36 599	36 079	35 560	35 041	34 522	34 003	-0.3
Germany	80 430	78 934	77 438	75 942	74 446	72 950	71 454	69 958	-0.4

Table 3 - A.3 Average Population Density (persons per sq. km)

	Finland	Estonia	Latvia	Lithuania	St. Petersburg region	Poland	Germany
As of 2009	16	30	35	50	74	118	230
As of 2050 (UN forecast)	16	27	29	39	61	99	197

Data source: National statistical bureaus

The table below reflects the forecast of population trend in Estonia, Latvia, and Lithuania at NUTS3 level. It is assumed that negative growth is less negative in and around the largest cities within the Baltic States i.e. existing urbanization trends will continue over the next decades.

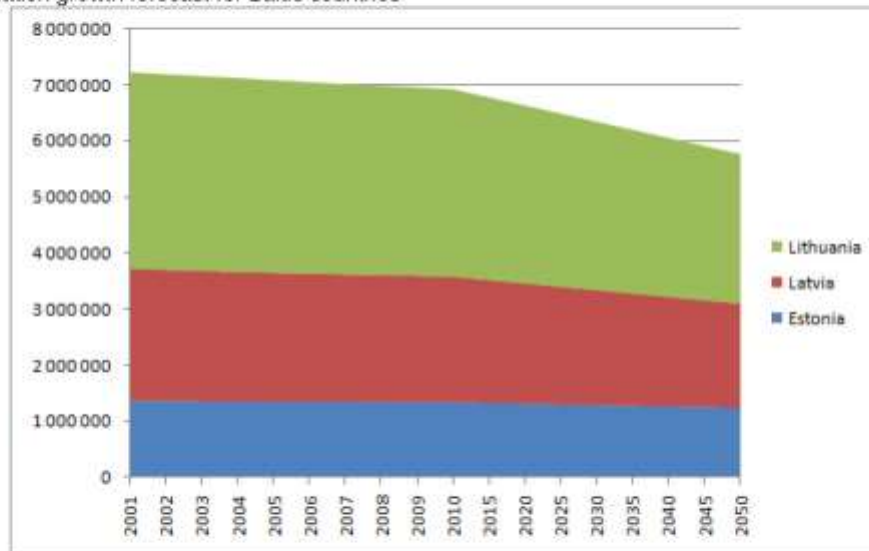
Table 4 - A.4 Population forecast at NUTS3 level for Estonia, Latvia, and Lithuania

Region	2015	2020	2025	2030	2035	2040	2045	2050	CAGR (%)
EE001Põhja-Eesti	524	524	523	522	522	521	521	520	-0,02
EE004Lääne-Eesti	158	155	152	150	147	145	143	141	-0,34
EE006Kesk-Eesti	137	135	133	131	129	127	126	124	-0,31
EE007Kirde-Eesti	166	163	161	158	156	153	151	149	-0,32
EE008Lõuna-Eesti	340	336	331	327	323	319	312	308	-0,28
LV003KurzemeRegion	289	280	270	261	251	241	232	222	-0,74
LV005LatgaleRegion	330	320	309	298	288	277	267	253	-0,74
LV006Riga	706	700	694	688	683	677	671	665	-0,17
LV007RigaRegion	383	381	379	377	375	373	372	370	-0,10
LV008VidzemeRegion	223	213	203	192	182	172	162	155	-1,00
LV009ZemgaleRegion	269	259	249	239	229	219	209	198	-0,85
LT001AlytusCounty	167	160	154	147	140	133	127	119	-0,93
LT002KaunasCounty	650	633	617	600	583	566	549	531	-0,57
LT003KlaipėdaCounty	373	369	365	360	356	352	348	344	-0,23
LT004MarijampoleCounty	173	167	161	155	149	143	136	130	-0,78
LT005PanevėžysCounty	267	255	243	232	220	208	196	187	-0,99
LT006ŠiauliaiCounty	331	318	306	293	280	268	255	240	-0,89

Region	2015	2020	2025	2030	2035	2040	2045	2050	CAGR (%)
LT007TauragėCounty	121	117	113	108	104	100	95	91	-0,78
LT008TelšiaiCounty	165	159	154	148	142	136	129	122	-0,84
LT009UtenaCounty	164	159	154	149	144	139	133	127	-0,72
LT00AVilniusCounty	837	826	815	804	793	782	775	766	-0,25

The overall population growth forecast for the Baltic States is indicated in Figure below:

Figure 2 - A.2 Population growth forecast for Baltic countries



1.1.4 Major Cities in the Baltic States

ESTONIA

There are 7 cities in Estonia with a population in excess of 20,000 inhabitants. These are shown and described in more detail below:

Figure 3 - A.3 Key Cities in Estonia



TALLINN

Tallinn, the capital of Estonia, is located in Northern Europe in the north-eastern part of the Baltic Sea region. Tallinn is the biggest city in Estonia and is of similar size to the capital of Finland – Helsinki.

The population of the city of Tallinn is 406 703 (1 January 2010).

Huge changes have taken place in all spheres of life in Tallinn during the last decade. In general, it is these changes that have established a favourable basis for the further development of Tallinn.

Tallinn has adopted a diversified business structure, which combines advanced service-based enterprise with an industry moving towards high technology. Emotion-based economy (cultural economy, creative economy) including tourism-oriented services and, from other side, entrepreneurship connected with to international logistics and transportation services are central to the field of service.

Industry, including high-tech and knowledge intensive industry, is to be developed to be successful against the stiff international competition. Tallinn has potential, in this regard, due to the availability of resources such as the Tallinn University of Technology, the technology- and industrial parks and business incubators.

TARTU

Tartu, with its population of 102,414 (statistics Estonia, 2008) in an area of 38.8 square kilometres, is the second largest city of Estonia. Situated 186 km southeast of Tallinn, the city is the centre of southern Estonia.

In contrast to capital Tallinn, Tartu is considered as the intellectual and cultural hub, especially since it is home to Estonia's oldest and most renowned university.

Tartu is mostly known as a university town, but it is also a site of heavy industry and its manufacturing represents ~15 per cent of total manufacturing of Estonia.

In the beginning of the 21st century, many ICT enterprises and other high-tech companies have taken a foothold in Tartu. Notable examples include Playtech Estonia, Webmedia, Tarkon, Regio and Raintree Estonia. Also Skype has an office in Tartu. The university is one of the largest employers, which explains the large proportion of highly skilled professionals – researchers, professors, doctors.

Tartu industry is modernised and has been in the phase of a rapid development for the last decade. Large foreign investments have been made into Tartu's traditionally strong sectors – engineering, electronics, and food industry – as well as new ones – information technology, glass industry and biotechnology. Foreign companies have invested also in the public services: city energy, transport and maintenance companies. Machinery and metal industry growth is based mainly on local investments, but the sector is one of the strongest and competitive in Tartu³.

Tartu also holds a strong position in the establishment of high- tech enterprises, notably in the fields of biomedicine, material science and information technology.

PÄRNU

Pärnu is an economic centre located in South-West Estonia on the shores of the Gulf of Pärnu with an area of 32 km². The population of Pärnu as of 01.01.2008 was 43 488.

According to the data of the Tax and Customs Board almost 4 thousand businesses were registered in Pärnu as of January 1, 2008.

Pärnu is a health resort of international stature. In addition to guests arriving from around fifty countries, it is also proved by its membership in the European Spas Association (since 2000) and the European Flag that has been flying at the beach of Pärnu since 2000.

Leading industries providing most of GVA created are:

- Tourism, recreation and rehabilitation (Rehabilitation Centre Tervis, SPA Estonia AS, Strand SPA & Conference, Ammende Villa, Art Nouveau style restaurant and hotel etc.);
- Forestry and wood processing (Viisnurk AS, Valmos AS, Tarriks AS etc.);
- Textile and clothing industry;
- Metal processing;

³ <http://business.tartu.ee/index.php?Menu=32>

- Peat mining and processing;
- Agriculture and fishery.

VILJANDI

Viljandi is located in South-Estonia. Distance from Viljandi to Tallinn is 161 km, to Tartu - 81 km, to Pärnu - 97 km. Viljandi is the sixth largest town in Estonia which is especially known for its beautiful nature and rich cultural life. Total number of population as of 2010 was 19,963.

There are almost 1 000 businesses in Viljandi, ~50% of them in service, ~45% in trade, and ~5% in production areas. The major industries represented are the construction materials industry, textile industry, and food and bakery industry.

GDP per capita of Viljandi in 2007 was 6.5 thousand EUR what was 56% of nation's average. Total GDP of Viljandi County in 2007 accounted 364 million euro or 2.3% of total GDP of Estonia. Share of total GDP has decreased during last decade since in the middle of 1990's GDP share was fluctuating between 2.8 to 3.1 per cent mark.

IDA – VIRU COUNTY

Ida-Viru County is one of 15 counties of Estonia. It is the most north-eastern part of the country. Biggest cities in the county are Narva and Kohtla-Järve.

Narva is the third largest city in Estonia. It is located at the eastern extreme point of Estonia, by the Russian border, on the Narva River. Total number of population as of 2010 was 65,881.

The town's economy is currently based on textile industry and power engineering. The largest employers are the two local power stations and Kreenholm Holding. Traditional fields of activity also include clothing manufacture, metal-working and wood-working, as well as the production of furniture, building materials, controlling and measuring apparatuses, and industrial equipment. Besides the large scale industries there are many small and medium size enterprises present in Narva, most of them are engaged in trade, manufacture and public services. The overall number of enterprises in Narva is growing steadily.

Kohtla-Järve is a in north-eastern Estonia, founded in 1924. The city is highly industrial, and both processes oil shales (Approximately 95 per cent of produced energy in Estonia is made by burning oil – shale) and is a large producer of various petroleum products. Total number of population as of 2010 was 44,492.

GDP per capita of Ida – Viru County in 2007 was 7.0 thousand EUR what was 60% of nation's average. Ida-Viru County GDP in 2007 accounted 1.2 billion euro or 7.7% of total GDP of Estonia. Share of total GDP has decreased during last decade since in the middle of 1990's GDP share was fluctuating between 9 to 10.6 per cent mark.

VALGA/VALKA (LATVIA)

Latvian town Valka and the Estonian town Valga are twin towns, separated by the Estonian/Latvian border but using the slogan "One Town, Two States". With the expansion of the Schengen Agreement and abolition of the Estonian/Latvian border in 2007 all border crossing-points were removed and since then it is possible to talk about joint economic zone.

Total number of Valga/Valka inhabitants is 20 500.

Leading industries that mainly are represented by small companies are:

- Forestry and wood processing;
- Peat mining and processing;
- Agriculture;
- Tourism.

Valga county has the second smallest GDP per capita in Estonia (92 thousands EEK (5.9 thousands EUR) in 2007 compared with nation's average of 183 thousands (50% of average)). GDP per capita of Valka town in 2006 was 3.6 thousand lats (5.1 thousands EUR) what was 73% of nations average.

LATVIA

There are 9 major cities within Latvia and these are shown in the figure and described in more detail below:

Figure 4 - A.4 Major Cities in Latvia



RIGA

Riga is the capital of Latvia, a major industrial, commercial, cultural and financial centre of the Baltics, and an important seaport. With 709,145 inhabitants (2010) (Total Riga Metropolitan area - approximately 1,09 million inhabitants) it is the largest city of the Baltic States and third-largest in the Baltic region, behind Saint Petersburg and Stockholm. Riga's territory covers 307.17 km².

The capital of Latvia is a lively transport hub with railway, seaport, and aviation and road networks. Modern technology and some of the world's fastest internet connections are available in Riga, while its numerous logistics parks, business and education centres support the development of new enterprises.

GDP per capita of Riga city in 2007 was 11.1 thousand lats (15.9 thousands EUR) what was 172% of nations average. GDP of Riga city in 2007 accounted 11.43 billion euro or 54.4% of total GDP of Latvia. This ratio has been stable for the last ten years fluctuating between 54 and 58 per cent.

Manufacturing in 2007 accounted only 9 per cent of GVA created in Riga.

DAUGAVPILS

Daugavpils is the second largest city in Latvia. It is located approximately 230 km south-east of the Latvian capital, Riga. As of 1 January 2009, the city had a population of 104,857. Daugavpils is a big railway junction and industry centre (approximately 20% of all employed in 2007 were engaged in manufacturing).

The city of Daugavpils has enterprises active in the following sectors: metal processing, food processing, civil engineering, chemicals and textile industry. Having regard to the geographical location of Daugavpils, logistics and associated services are recognised as having excellent development potential.

Daugavpils City Municipality is planning to develop City Business and Technology Park by 2011 – 2012 with the required infrastructure for immediate commencement of business operations. Daugavpils plans to provide 50% real estate tax allowance for investment projects.

GDP per capita of Daugavpils city in 2006 was 3.66 thousand lats (5.2 thousands EUR) what was 75% of nations average. GDP of Daugavpils city in 2006 accounted 567 million euro or 3.6% of total GDP of Latvia.

JELGAVA

Jelgava is a town in central Latvia about 41 km southwest of Riga with 65,419 inhabitants (2009).

Jelgava is often called the City of Students as more than 8 thousand students study there. The Latvian University of Agriculture, the third largest university in Latvia is situated there.

The city has always had well-developed industry and infrastructure which undoubtedly was enabled by the city's advantageous geographical location. One of the major strengths of Jelgava is its connectivity to the rest of Europe. Jelgava is located at a major railway junction with routes leading in both east-west and north-south directions. Moreover, the city is located in the middle of the country and is traversed by many transit roads.

The main focuses of industries in Jelgava are metallurgy, woodworking, food production, mineral based production, textiles, and plastics, publishing and polygraphs.

There is currently the largest industrial park in Latvia. It occupies 23 ha and rents over 111 thousand m² of space to companies. The park is located just 2 kilometres from the main road, which runs from Riga to Lithuania and from there to the rest of Western Europe.

GDP per capita of Jelgava town in 2006 was 3.9 thousand lats (5.6 thousands EUR) what was 80% of nations average. GDP of Jelgava town in 2006 accounted 368 million euro or 2.3% of total GDP of Latvia.

VENTSPILS

The city of Ventspils is located in Latvia in the central portion of the Baltic Sea East coast. This is a geographical centre of the Baltic Sea region. Ventspils is the sixth largest city in Latvia and one of the largest ports in the Baltic Sea region. The number of registered inhabitants in Ventspils is 44.1 thousand.

It covers 55 km², of which 47% is a Special Economic Zone (SEZ)⁴. Approximately 1000 companies and their representative offices operate in Ventspils.

Ventspils City Council along with Free Port Authority has designated a territory of more than 1000 ha for realization of the industrial projects, including implementation of the Ventspils Industrial Park project. Several land lots, ranging from 1 to 200 ha, are prepared for construction works, providing expansion possibilities, if required. Two industrial parks – Ventspils High Technology Park and NP Ventspils Business Park are being developed, thus providing companies the necessary premises for rent.

Ventspils industrial sector is growing fast, the city has managed to attract new companies as well as to promote the development of already existing companies in wood processing, metal processing, engineering and automotive industries, light and chemical industry, IT and electronics sector.

GDP per capita of Ventspils city in 2006 was 6.96 thousand lats (9.9 thousands EUR) what was 142% of nations average. GDP of Ventspils city in 2006 accounted 434 million euro or 2.7% of total GDP of Latvia.

VALMIERA

Valmiera is the largest town of the historical Vidzeme region, Latvia, with a total area of 18.1 km². Total number of population in 2008 reached 27,569.

GDP per capita of Valmiera town in 2006 was 3.7 thousand lats (5.3 thousands EUR) what was 76% of nations average. Valmieras GDP in 2006 accounted 308 million euro or 2% of total GDP of Latvia what is growth from 2001 when share of GDP was 1.7 per cent.

Over the years Valmiera has evolved into an industrial centre of Vidzeme; it hosts large and well-known enterprises - "Valmieras stikla šķiedra" (fibre-glass), "Valpro Corporation" (metal processing), food production companies (leading - "Valmieras piens" (dairy), wood-processing enterprises (leading - "Byko-Lat") and many other.

LIEPĀJA

Liepāja is a city in western Latvia on the Baltic sea and the administrative center of Liepāja district. It is the largest city in the Kurzeme Region of Latvia, the third largest city in Latvia after Riga and Daugavpils and an important ice-free port. As of 1 January 2010 Liepāja had a population of about 83000.

⁴ The basic incentive package available for companies establishing within this zone includes the 80% rebate on real estate tax and 66% rebate on corporate income tax, as well as remarkable reductions on value added tax, excise tax and custom duties.

Liepāja is a city successfully combining manufacturing traditions, an ice-free port, great intellectual potential and rich historical and cultural heritage. The economic development of Liepāja is based on traditional industrial infrastructure, adding the possibilities of port.

GDP per capita of Liepāja city in 2006 was 4.57 thousand lats (6.5 thousands EUR) what was 94% of nations average. Liepājas GDP in 2006 accounted 558 million euro or 3.5% of total GDP of Latvia what is similar to previous 10 years when GDP share was fluctuating between 3.5 and 4.1 per cent.

JEKABPILS

Jēkabpils is a town in Latvia roughly halfway between Riga and Daugavpils. Total number of inhabitants as of 2010 was 25 900.

GDP per capita of Jēkabpils city in 2006 was 2.84 thousand lats (4.1 thousands EUR) what was 58% of nations average. Rēzeknes GDP in 2006 accounted 213 million euro or 1.3% of total GDP of Latvia what is similar to previous 10 years when GDP share was fluctuating between 1.2 and 1.4 per cent.

REZEKNE

Rēzekne is a city in the Latgale region of eastern Latvia. Rēzekne is situated 242 km east of Riga, and 63 km west of the Latvian-Russian border, at the intersection of the Moscow – Riga and Warsaw – Saint Petersburg Railways. It has a population of 35,883 (2008).

Since 1997 the "Law on Rēzekne Special Economic Zone (RSEZ)" is applied in Rēzekne and in compliance with it the tax rebates are applied to the enterprises with the RSEZ status.

Rēzekne largest industrial enterprises are producing electrical instruments, milking clusters, wood, meat and corn products.

GDP per capita of Rēzekne city in 2006 was 4.87 thousand lats (6.9 thousands EUR) what was 100% of nations average. Rēzeknes GDP in 2006 accounted 254 million euro or 1.6% of total GDP of Latvia what is similar to previous 10 years when GDP share was fluctuating between 1.3 and 1.6 per cent.

CĒSIS

Cēsis is a town in Latvia located in the northern part of the Vidzeme central upland with a total area of 19.3 km². Total number of population in 2008 reached 18,065.

GDP per capita of Cēsis town in 2006 was 2.96 thousand lats (4.2 thousands EUR) what was 61% of nations average. Cēsis GDP in 2006 accounted 240 million euro or 1.5% of total GDP of Latvia what is similar to previous 10 years when GDP share was fluctuating between 1.4 and 1.5 per cent.

Cēsis could be called the tourism capital city of Vidzeme. Every year Cēsis attracts thousands of visitors that come to enjoy the Baltic Knight Festival, outdoor opera performances staged in the Livonian castle ruins, as well as the national dance festival "Vendene".

The most typical types of entrepreneurship are: food industry, tourism, information technologies and rendering of services. In accordance with Cēsis City development plan, tourism, wood-processing, food-processing and IT will be the priorities of entrepreneurship in the town in the future as well. Currently, the largest enterprises of Cēsis city are breweries (Cēsu alus), a honey processing plant, a meat processing plant, bakeries, and a printing house. There are 30 enterprises per 1000 citizens of the Cēsis town.

LITHUANIA

There are 15 major cities within Lithuania (defined as having a population greater than 25,000 inhabitants) and these are shown on the figure and described in more detail below:

Figure 5 - A.5 Major Cities in Lithuania



VILNIUS

Vilnius is the capital of Lithuania, and its largest city, with a population of 555,613 (847,954 together with Vilnius County) as of 2008.

The city is home to major companies and key financial institutions. Highly developed infrastructure, high quality services, and increased spending power of inhabitants all attract large foreign investments. Improving quality of life, organized city development, and intensive cultural life all contribute to creation of a welcoming and appealing environment.

In 2007, Vilnius County produced 38.9 % of country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 45 thousand, which is by 54.9 % more than the national average in 2007. The GDP per capita in Vilnius County is twice as high as those of Alytus, Marijampolė, Panevėžys, Šiauliai, Tauragė and Utena Counties.

As compared with the general situation in Lithuania, Vilnius County has a better-developed production and non-production service sector, where 71 % of gross value added (GVA) is generated (national average – 62.7 %). Industry and construction generate 27.6 % (national average – 32.8 %), while agriculture, forestry and fishing – 1.4 % of the county's GVA (national average – 4.5 %).

By the level of entrepreneurship Vilnius County significantly exceeds the national average. In 2007, the national average was 18.8, while in Vilnius county – as much as 27.2 per 1 000 inhabitants. Vilnius County accounts for 17% of extractive industry and manufacturing production in Lithuania. 81 % of the value of production manufactured in the county falls within Vilnius city.

Table 5 - A.5 Main products manufactured in Vilnius, 2001 -2007

Main products manufactured, 2001–2007

	2001	2003	2005	2007
Meat and offal, thousand t	16.0	22.0	26.3	30.5
Sausages and smoked meat products, thousand t	11.7	14.9	19.1	13.1
Prepared or canned vegetable and fruit products, t	718.0	947.0	2188.0	3540.7
Fruit and vegetable juice, thousand t	7348.0	7451.0	10215.0	11821.1
Confectionery, thousand t	14.9	14.0	15.4	14.3
Vinegar, thousand dal	187.4	194.6	319.5	191.9
Vodka and liqueur products, thousand dal 100 % of alcohol	117.4	132.9	291.4	407.2
Carpets and carpet products, thousand m ²	35.0	25.6	17.4	3.4
Wood chipboard, million m ²	16.0	20.5	21.2	36.8
Polishes, t	296.5	324.1	340.6	489.0
Ceramic bricks and blocks, thousand m ²	7.9	7.5	27.6	31.8
Glass insulation elements for walls, thousand m ²	182.3	333.6	596.5	840.9
Prefabricated construction elements for construction or civil engineering, thousand t	167.7	233.8	426.6	450.3
Heating boilers	1204	2074	2223	4067
Gear processors	243	195	420	435
Low-capacity electric engines, thousand	57.4	148.4	186.1	121.7
Disposable respiratory equipment, million	29.7	37.9	47.0	54.3
Electricity meters, thousand	237.9	166.3	199.9	143.1
Air intake filters for internal combustion engines, thousand	417.5	856.0	1255.9	1088.2
Wardrobes, thousand	103.5	156.3	173.1	189.9

Data source: Statistics Lithuania

In 2007, about 44 % of production manufactured in Vilnius County was exported. Increasing production volumes in the county's enterprises determined a more rapid growth in exports. In total, goods manufactured in Vilnius county accounted for 15.5 % of exports of Lithuanian goods.

KAUNAS

Kaunas with more than 440 thousand inhabitants (The suburbs of Kaunas (population of 85,100) included) is second biggest city of Lithuania. It is not only a city of old traditions, but also a large centre of business and industry. It can also lay claim to be a city of young people with over 35,000 students studying at one of the seven universities here.

According to the level of economic development, Kaunas County slightly lags behind the national average. Kaunas County produced 19.3 % of country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 28 thousand, which is by 3.7 % less than the national average in 2007.

As compared with the general structure of the national economy, Kaunas County has better developed industry and construction, where 35.9 % of the county's gross value added (GVA) is generated (national average – 32.8 %).

The main industries are construction materials, food processing and textiles.

Table 6 - A.6 Main products manufactured in Kaunas, 2001 -2007

Main products manufactured, 2001–2007

	2001	2003	2005	2007
Synthetic ammonia, thousand t N	449.0	462.0	432.0	936.0
Mineral fertilisers, per 100 % of nutrients, thousand t	551.4	623.7	822.8	929.5
Flour, thousand t	69.4	72.0	82.2	72.2
Compound feeding stuff, thousand t	71.7	99.8	129.0	173.9
Sparkling fermented beverages, thousand dal	433.2	527.0	572.7	487.9
Woollen fabrics, million m ²	12.4	10.7	11.4	10.1
Polyhedral insulation elements made of glass, thousand m ²	201.0	393.4	650.7	628.5
Prefabricated construction elements, thousand t	107.4	137.1	200.6	219.3
Phosphoric acid, thousand t (P ₂ O ₅)	159.3	374.2	409.4	430.3
Sulphuric acid monohydrate, thousand t (SO ₂)	303.8	655.0	713.2	747.5
Diammonophos, thousand	312.7	726.4	720.9	821.6

Data source: Statistics Lithuania

By the level of entrepreneurship Kaunas County is outpaced only by Vilnius and Klaipeda counties and exceeds the national average. In 2007, the national average was 18.8, while in Kaunas County – 19 enterprises per 1 000 inhabitants.

46.4 % of production manufactured in Kaunas County is sold on the domestic, 53.6 % – on the export market.

Free Economic Zone and industrial park

Kaunas Free Economic Zone (KFEZ, www.ftez.lt) is 5,000 ha site located just 7 km from Kaunas. It is located on the intersection of Via Baltica, Warsaw - Helsinki road and Vilnius - highway, which also links Klaipeda sea port with Russia and Ukraine. A company, which is operating in Kaunas FEZ, is paying 80% of reduced rate of income tax for the period of 5 years and the 50% reduced rate of income tax for the next 5 years.

KLAIPEDA

As of 2010, the population of Klaipeda city was 182 752. Business activities in Klaipeda are closely related to port. The Port of Klaipeda is the principal ice-free port on the eastern coast of the Baltic Sea. It is the most important Lithuanian transportation hub, connecting sea, land and railway routes from East to West. The annual port cargo handling capacity is up to 40 Mt.

According to the level of economic development, Klaipeda County is one of the most successfully developing regions in the Lithuania. Klaipeda County produced 11.5 % of the country gross domestic product (GDP). GDP per capita, on average, in the county made LTL 29.8 thousand, which is by 2.6 % more than the national average in 2007.

Table 7 - A.7 Main products manufactured in Klaipeda County, 2001 -2007

	2001	2003	2005	2007
Beer, million dal	5.7	5.9	5.9	6.3
Cheese, thousand t	7.2	7.1	6.1	4.5
Compound feeding stuff, thousand t	53.9	57.9	72.7	86.2
Cat and dog food, thousand t	53.9	73.6	79.6	93.5
Wood chipboard, thousand m ³	90.7	126.9	195.1	195.7
Paper and cardboard, thousand t	46.5	69.4	88.6	99.2
Sets of automotive wiring and cables, thousand t	4.8	8.8	9.5	4.0
Peat mining (relative humidity), thousand t	43.1	67.5	69.4	37.4
Oil extraction, thousand t	470.9	382.4	216.6	154.4
Tables, thousand units	318.4	385.3	298.3	476.2

ŠIAULIAI

Šiauliai is the fourth largest city in Lithuania, with a population of 129,075. It is the capital of Šiauliai County.

According to the level of economic development, Šiauliai County slightly lags behind the national average. Šiauliai produces ~ 7.5 % of country's GDP. Per capita, on average, in Šiauliai made LTL 21 thousand, which is by 27.7 % less than the national average in 2007.

As compared with the general structure of the national economy, Šiauliai has better developed industry and construction; generating 30.8 % of the gross value added (GVA) in the county.

By the level of entrepreneurship Šiauliai county is outpaced by most of the counties of Lithuania. In 2007, the national average was 18.8, while in Šiauliai County – 13.4 enterprises per 1000 inhabitants. County's industry is concentrated in Šiauliai town municipality (65 per cent of the value of total industrial production manufactured in the county), where the well-developed branches are beer production, manufacture of TVs, bicycles, plastic and paper packaging, furniture.

Table 8 - A.8 Main products manufactured in Šiauliai, 2001 -2007

Main products manufactured, 2001–2007

	2001	2003	2005	2007
Peat mining (relative humidity), thousand t	72.7	107.2	120.7	66.7
Cement, thousand t	529.0	596.0	832.0	1105.4
Quicklime, thousand t	54.6	59.8	39.2	55.2
Crushed dolomite, thousand t	725.8	1522.9	2938.7	4308.8
Beer, thousand dal	2100.0	2677.0	3197.0	2430.4
TVs, thousand units	143.2	686.8	1012.8	480.9
Bicycles, thousand units	322.5	351.2	417.8	404.6

Data source: Statistics Lithuania

The largest and better-known county's industrial enterprises – private company Šiaulių tauro televizoriai (TVs), public company Baltik varais (bicycles), private company Putokšnis (PET containers), public company Neaustinių medžiagų fabrikas (blankets,

nonwovens, furniture), public company Akmenes cementas (cement and quicklime), public company Gubernija (beer), public company Kelmės pieninas (milk and dairy products), public company Naujoji Rūta and private company Rūta (chocolate and sweets), private company Eternit Akmenė (manufacture of and trade in roofing), public company Naujasis kalcitas (lime), private company Artilux NMF (lighting equipment).

Increasing production volumes in the county's enterprises determined a more rapid growth in exports. In 2007, about 47.8 % of production manufactured in the county was exported. In total, goods manufactured in the county accounted for 5.4 % of exports of Lithuanian goods. The bulk of exported goods fell within bicycles, plastic products, TV signal receivers.

PANEVĖŽYS

Panevėžys, the capital of Aukštaitija Ethnographic Region, has been the fifth largest city in Lithuania for more than a century. It occupies 50 square kilometres with more than 112 thousand inhabitants.

In 2007 there were 3 307 functioning companies. The largest part is covered by wholesale and retail traders (976), industry (394), construction (153), transport and storage (219), real estate and rent (343) sectors. Small and medium business prevails in Panevėžys.

Over 40 000 people work for the companies of Panevėžys. Food industry (beer, milk and meat products, sugar, and flour) accounts the biggest part (29%) in the production of Panevėžys industry.

According to the level of economic development, Panevėžys County lags behind the national average. Panevėžys County produced 5.9 % of country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 20.4 thousand, which is by 30 % less than the national average in 2007. According to GDP per capita, Panevėžys County may be classified under the mediocre ones.

As compared with the general structure of the national economy, Panevėžys County has better developed industry and construction, where 35.3 % of the county's gross value added (GVA) is generated (national average – 32.8 %).

Table 9 - A.9 Main products manufactured in Panevėžys, 2001 -2007

Main products manufactured, 2001–2007

	2001	2003	2005	2007
Meat and meat products, thousand t	8.1	20.2	17.8	22.6
Beer, thousand dal	5843.0	4720.0	6428.0	9329
Sugar, thousand t	57.9	63.5	47.8	7.3
Flour, thousand t	57.0	80.5	104.8	146.1
High-fat cheese, thousand t	31.5	31.3	40.5	32.1
Peat mining (relative humidity), thousand t	61.6	34.0	152.4	100.5

Data source: Statistics Lithuania

Export is mainly directed to Europe, Asia and CIS. City exports equal 5.9 per cent of the total Lithuanian export.

Industrial Park

On September 3, 2009, after the evaluation of preparatory works, the Minister of National Economy of the Republic of Lithuania allocated the support of 17.5 mln. litas. It will be used for the construction of infrastructure of Industrial Park (local roads, water supply and sewage, electricity networks, etc.). The construction works of infrastructure in the territory of Industrial Park has been started on October 19, 2009. In autumn 2010 a high quality Industrial Park is planned to be proposed for the investors.

TELŠIAI COUNTY

Biggest towns of Telšiai County are:

- (1) Telšiai with 30 000 inhabitants;
- (2) Mažeikiai with 40 000 inhabitants.

According to the level of economic development, Telšiai County lags behind the national average; however, may be classified under the strongest ones, together with those of Vilnius, Kaunas and Klaipėda. Telšiai County produced 4.3 % of country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 24.3 thousand, which is by 16.5 % less than the national average in 2007.

Table 10 - A.10 Main products manufactured in Telšiai County, 2001 -2007

	2001	2003	2005	2007
Milk, million l	33.5	33.5	27.1	28.6
Butter, thousand t	8.3	7.4	6.7	5.1
High-fat cheese, thousand t	6.2	6.6	9.4	9.3
Prepared or canned fish, thousand t	29.2	27.2	28.8	27.1
Linen, million m ²	2.9	3.4	2.8	1.0
Petrol, thousand t	2011.0	2059.0	2643.0	1676.6
Diesel fuel, thousand t	2062.0	2336.0	3002.0	1878.5
Peat mining (relative humidity), thousand t	21.3	25.5	34.8	12.7

UTENA COUNTY

Biggest towns of Utena County are:

- (1) Utena with 32 000 inhabitants;
- (2) Visaginas with 28 000 inhabitants.

According to the level of economic development, Utena county considerably lags behind the national average. Utena county produced 4 % of the country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 22.7 thousand, which is by 22 % less than the national average in 2007. According GDP per capita, Utena county may be classified under the weakest ones.

Table 11 - A.11 Main products manufactured in Utena County, 2001 -2007

	2001	2003	2005	2007
Quartz sand, thousand t	86.9	49.7	46.5	45.4
Sausages and smoked meat products, thousand t	2.6	3.5	8.3	11.1
Beer, million dal	4.2	5.8	6.6	6.7
Soft drinks, thousand dal	21.0	189.0	218.0	471.5
Fruit and berry wine, thousand dal	470.0	528.0	251.0	288.5
Knitted underwear, million	9.4	4.5	4.0	1.2
Knitted garments, million	2.8	4.4	5.3	3.5
Armour-plated or reinforces safes, thousand	3.8	4.6	5.8	8.2
Internal combustion engine filters, thousand	36.9	45.1	82.7	71.1
Garden furniture, thousand	78.1	143.8	189.8	151.8

TAURAGĖ COUNTY

Tauragė is an industrial city in Lithuania, and the capital of Tauragė County. In 2010, its population was 27,500. Tauragė is situated on the Jūra River, close to the border with the Kaliningrad Oblast, and not far from the Baltic Sea coast.

According to the level of economic development, Tauragė County is classified under the small ones. Tauragė county produced 1.8 % of country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 13.7 thousand, which is 47 % of the national average in 2007. According per capita, Tauragė county is the weakest in Lithuania.

Table 12 - A.12 Main products manufactured in Tauragė County, 2001 -2007

	2001	2003	2005	2007
Sausages and smoked meat products, thousand t	7.6	8.1	8.7	12.4
Prepared or canned vegetable and fruit products, t	548.0	1194.0	1655.0	1561.6
High-fat cheese, thousand t	6.7	6.0	8.4	8.1
Overcoats, thousand units	39.5	22.0	20.9	29.0
Jackets, thousand units	13.9	19.2	28.6	33.9
Ceramic blocks, thousand m ²	8.4	10.1	25.6	27.9
Chairs, thousand units	14.6	34.2	41.2	15.7
Peat mining (relative humidity), thousand t	7.6	8.1	8.7	16.0

ALYTUS COUNTY

Alytus is a city with municipal rights in southern Lithuania. It is the capital of Alytus County. Its population in 2010 was 66,841.

According to the level of economic development, Alytus County significantly lags behind the national average. Alytus County produced 3.5 % of country's gross domestic product (GDP). GDP per capita, on average, in the county made LTL 19.1 thousand, which is by 34.5 % less than the national average in 2007. According GDP per capita of Alytus County may be classified under the weakest ones.

Table 13 - A.13 Main products manufactured in Alytus County, 2001 -2007

	2001	2003	2005	2007
Vodka and liqueurs, thousand dal 100 % alc.	147.5	212.6	228.5	206.3
Sparkling wine, thousand dal	240.0	203.0	284.0	367.0
Wooden doors, door frames and thresholds, thousand	3.2	5.5	5.7	10.4
Wooden windows and window frames, thousand units	3.7	8.7	11.2	11.6
Refrigerators and freezers, thousand units	320.4	429.4	443.5	468.0

MARIJAMPOLĖ COUNTY

Marijampolė is an industrial city and the capital of the Marijampolė County in the south of Lithuania, bordering Poland and Russian Kaliningrad oblast. The population of Marijampolė is 46,256 (2010). It is the Lithuanian center of the Suvalkija region.

According to the level of economic development, Marijampolė County considerably lags behind the national average. Marijampolė County produced 3.2 % of county gross domestic product (GDP). GDP per capita, on average, in the county made LTL 17.5 thousand, which is by 39.7 % less than the national average in 2007. According GDP per capita, Marijampolė County may be classified under the weakest ones (a lower indicator was recorded only for Tauragė County).

Table 14 - A.14 Main products manufactured in Marijampolė County, 2001 -2007

	2001	2003	2005	2007
Flour, thousand t	9.6	11.3	9.3	10.2
Preserved milk products, thousand t	6.1	7.7	11.7	21.9
Ice-cream, thousand t	3.8	4.1	3.7	1.9
Sugar, thousand t	20.7	29.4	32.7	27.5
Prepared and preserved vegetable and fruit products, t	193	604	393	965
Flax fibre, t	338	1041	481	-
Knitwear products, million units	2.4	2.5	2.7	4.9
Bulk yarn, thousand t	3.1	3.1	2.2	4.1
Woollen fabric, million m ²	1.7	1.5	1.7	2.1
Wood chipboard, thousand m ³	143.6	186.6	243.5	427.8

1.1.5 Conclusions

The main conclusions with regard to the population levels in the Baltic States and surrounding region are:

- (1) It is assumed that the population growth will be negative across the whole of the region for the period under consideration. A fall in population of approximately 0.2% p.a. in Estonia, 0.4% p.a. in Latvia and 0.5% p.a. in Lithuania is expected. The only country within the study area likely to experience a positive growth is Finland where a 0.2% p.a. rise is expected;
- (2) Existing urbanization trends will continue over the next decades.

1.1.6 Macroeconomic analysis and forecasts

This section contains short macroeconomic analyses on each of the Rail Baltica project countries indicating its GDP, GVA, and employment issues as well as showing key economic drivers and forecasts for each country.

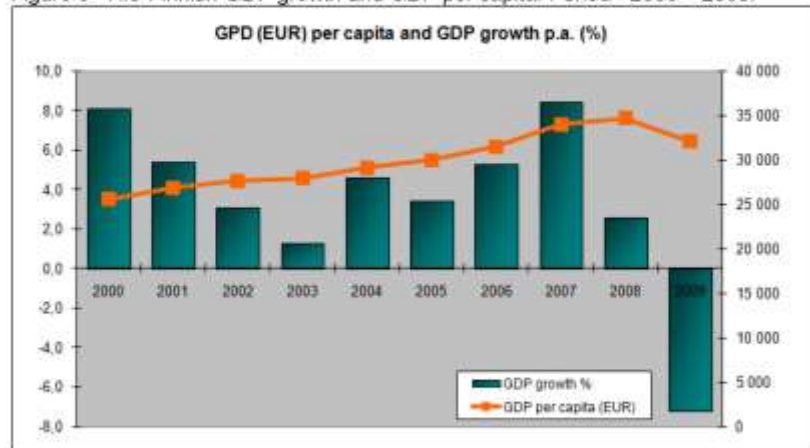
Gross Value Added is a measure of the value of goods and services produced in an economy. GVA is linked as a measurement to GDP. The relationship is defined as: GVA plus taxes on products minus subsidies on products = GDP.

FINLAND

GDP and GVA

During the period 1997-2008, the Finnish economy has grown by an average of 3.6% p. a., compared with an EU average of 2.4% p.a. Government surpluses have helped to reduce the national debt, which reached just over 30% of GDP in 2008. Finland is among the European countries with the strongest public finances.

Figure 6 - A.6 Finnish GDP growth and GDP per capita. Period - 2000 – 2009.



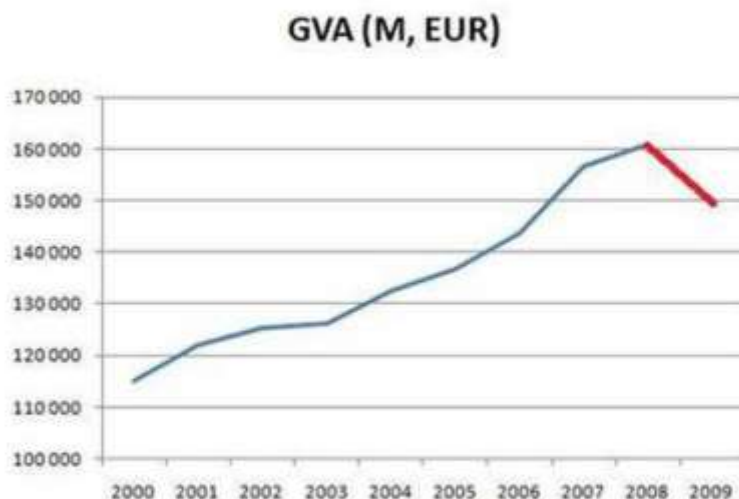
Data source: Statistics Finland

Severe global recession during years 2008 – 2009 has had a dramatic impact on the Finnish economy, and its public finances have suffered. GDP fell by 7.2% in 2009. GDP per capita has fallen to 32 025 EUR in 2009 compared with 34 663 in 2008. Thus, it is still higher than in 2006 when GDP per capita was slightly above 31 000 EUR.

The shrinking GDP was driven by a substantial decline in both domestic demand – consumption and investments – and exports. Consumer spending fell during year 2009 for the first time since the early 1990s, as households instead of consumption decided to increase their savings.

Figures below indicate growth of GVA and GVA by sectors.

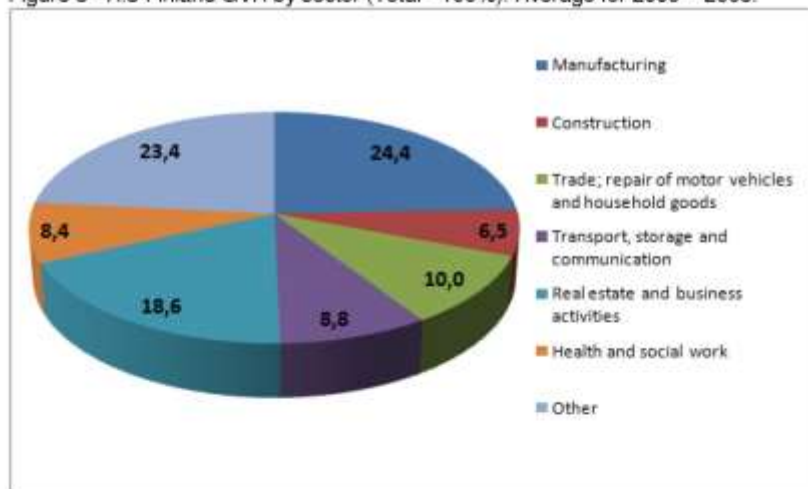
Figure 7 - A.7 Total GVA of Finland (M, EUR, nominal prices)⁵



Data source: Statistics Finland

⁵ Data for 2009 – forecast based on assumption that GVA drop will be similar to drop of GDP

Figure 8 - A.8 Finland GVA by sector (Total - 100%). Average for 2000 – 2008.



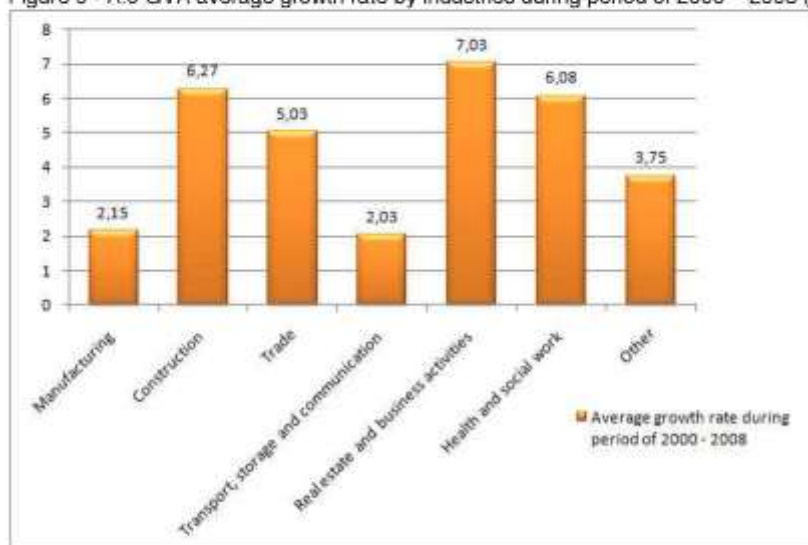
Data source: Statistics Finland

Manufacturing and construction were the sectors that significantly lost its volume in 2009. GVA in manufacturing fell by 25 per cent while construction GVA decreased by 11 per cent. Most suffering manufacturing sectors were Manufacture of basic metals (-54%) and Manufacture of electrical and optical equipment (-44%).

It is expected that those industries will be the one which recovers quickly when global economy steps up. While return to previous levels of 2008 is not expected until 2013 – 2014.

Figure below represents growth rate of each separate sector during the period 2000 – 2008.

Figure 9 - A.9 GVA average growth rate by industries during period of 2000 – 2008 (Nominal prices)



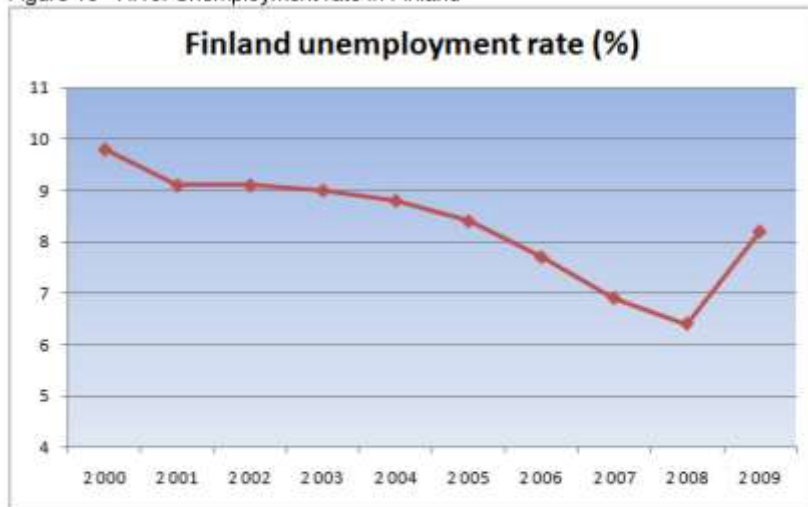
Data source: Statistics Finland

Employment

During last ten years Finland has experienced decrease in unemployment rate from 9.8% in 2000 to 6.4% in 2008. During 2009 sharp increase in unemployment rate was as a consequence of economic recession, although unemployment has risen less than expected, due to a contraction in labour supply. This was partly on account of acceleration in the rate of retirement.

Figure below indicates changes of unemployment rate. Worthwhile to notice that correlation between GDP growth and unemployment rate is -0.96 what suggest that we will see fast drop in unemployment rate when economy recovers.

Figure 10 - A.10. Unemployment rate in Finland



Data source: Statistics Finland

According to Statistics Finland's labour Force Survey, employment and unemployment were in June, 2010 near the level where they were one year earlier. The unemployment rate has reached 8.8%.

Major Areas of Population

HELSINKI

Helsinki is the capital and largest city in Finland. It is in the southern part of Finland, on the shore of the Gulf of Finland, by the Baltic Sea. The population of the city of Helsinki is 584 420 (31 March 2010). Over one million people live in the Helsinki metropolitan area, which includes the city of Helsinki and three other cities.

Helsinki is Finland's major political, educational, financial, cultural and research centre.

The Helsinki metropolitan area generates one third of Finland's GDP and is a dynamic economy with a highly varied industrial structure

One of the strong economic sectors in Helsinki has been information and communication technology (ICT), which drove rapid growth in Helsinki up to the early years of the 21st century. The service sector employs more than 80 per cent of the Helsinki workforce. Helsinki is one of the leading knowledge-based metropolises in Europe. Design-related industries including new media are slated to be some of the new growth areas in Helsinki.

GDP per capita is roughly 1.5 times the national average, making Helsinki one of the wealthiest capitals in Europe. The metropolitan area's gross value-added per capita is 200% of the mean of 27 European metropolitan areas. It equals Stockholm or Paris. The gross value-added annual growth has been around 4%. 83 of the 100 largest Finnish companies are headquartered in Greater Helsinki.

A demographic forecast puts the Helsinki region among the fastest growing regions in Europe. Some areas of the economy may even face shortages of labour.

Helsinki is located some 80 kilometres north of Tallinn, Estonia. Helsinki has close connections with Tallinn.

Tourism

Foreign travellers

In 2009, Finland received 5.7 million foreign visitors what is less by six per cent in comparison with 2008. These data are derived from the Border Interview Survey by Statistics Finland and Finnish Tourist Board.

Table 15 - A.15 Foreigners visiting Finland in 2006-2009, (thousands)

Country of residence	2006	2007	2008	2009	Change 2008-2009, (%)
All visitors , incl.	5 345	5 736	6 072	5 695	-6
Estonia	503	561	522	583	12
Germany	369	350	376	332	-12
Latvia	33	41	59	54	-8
Poland	48	53	40	44	10
Lithuania	30	28	33	16	-51

Data source: Statistics Finland

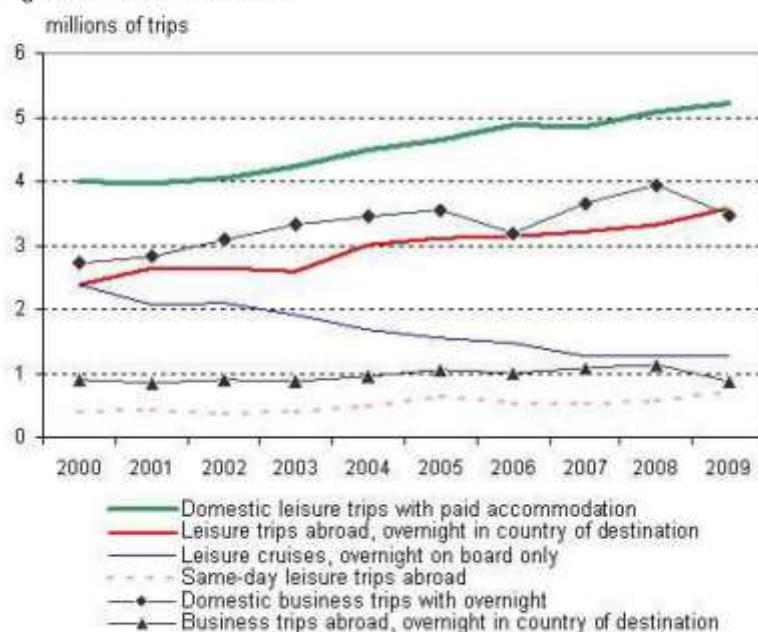
In 2009, 50 per cent of the foreign visitors to Finland were on leisure trips. Twelve per cent of all visitors to Finland came to see friends or relatives. A quarter of all foreign visitors to Finland came on business. Ten per cent of visitors were on a transit trip through Finland.

In 2009, foreigners stayed an average of 3.9 nights in Finland. Visitors from Russia, Estonia, Sweden and Germany spent the highest numbers of nights in Finland.

Finnish travellers

In 2009 Finnish residents' travelling abroad increased more strongly than in the previous years and 8% more leisure trips with overnight stays in the destination country were made than in 2008. More leisure trips with paid accommodation were also made in Finland than the year before and their number rose by three per cent. Business trips abroad declined in all by over one fifth and business trips in Finland by 12 per cent. These data derive from Statistics Finland's Finnish Travel Survey for which 19,038 people aged 15 to 74 permanently resident in Finland were interviewed.

Figure 11 - A.11 Finnish travel



Data source: Statistics Finland

During 2009 Finnish residents aged 15 to 74 made a total of 5.6 million leisure trips abroad. Twenty-nine per cent of them were destined to Estonia, 25 per cent to Sweden and seven per cent to other neighbouring areas (Russia, Norway, Denmark, Latvia and Lithuania). In all, 3.4 million leisure trips were made to the neighbouring areas.

Forty-five per cent of business trips with overnight stays in the destination country, or 390 000 trips, were headed to the neighbouring areas. By far the highest number of business trips was made to Sweden, 167 000 trips, followed by Germany and Estonia, both with around 95 000 business trips.

Forecast

Big drop in exports for 2009 most likely will be followed by a recovery during the next years, as global demand improves. In 2011 exports are expected to rise by 6.5% (average volume of forecasts prepared by commercial banks) in volume.

Middle term market growth in Europe, where the majority of exports are shipped, is expected to be modest, especially in EMU countries, where extensive budget cuts will be made, primarily in 2011.

Growth in the next two years, most likely, will be driven by higher domestic demand. Growing real wages and income tax cuts will be strengthening Finnish households' buying power at the same time that the labour market is stabilising. Unemployment is expected to fall late in the year 2011.

As a whole, commercial banks, EBRD, IMF, Eurostat and local authorities expect GDP on average to grow by around 1.7% in 2010, 2.0% in 2011, and 2.5% in 2012. This means that it will take several years (i.e. 2013 at the earliest) before the economy reaches the year 2008 levels.

Long term forecasts by aforementioned institutions are made rarely. We have found few forecasts that states that in general Finland's average long term growth may exceed EU's growth. Therefore, we have assumed average growth of 1.8% p.a.

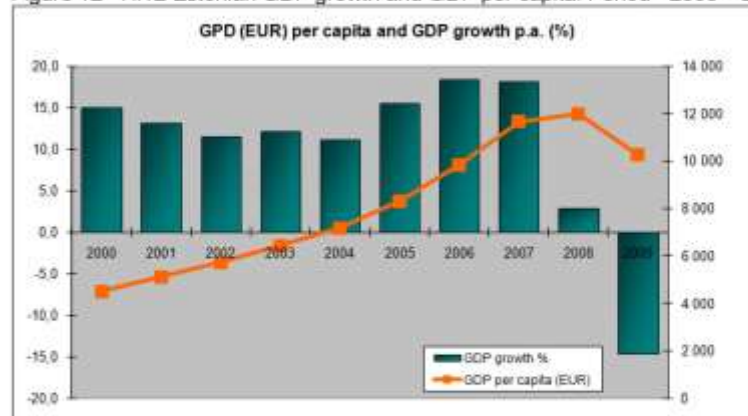
Leisure trips to Estonia from Finland have grown by 0.6% in 2009 reaching new record levels. Business trips accounts ~12% of total trips to Estonia. Most likely that future growth strongly will be correlated with GDP growth.

Estonia

GDP and GVA

During the period 2000-2008, the Estonian economy has grown by an average of 13.1% p. a., compared with an EU average of 2.4% p.a. Government surpluses have helped to reduce the national debt. According to preliminary data of Statistics Estonia, in 2009 the Estonian general government sector deficit was 1.7% and gross debt level was only 7.2% of GDP. Estonia is among the European countries with the strongest public finances.

Figure 12 - A.12 Estonian GDP growth and GDP per capita. Period - 2000 – 2009.



Data source: Statistics Estonia

Severe global recession during years 2008 – 2009 has had a dramatic impact on the Estonian economy. GDP fell by 14.6% in 2009. GDP per capita has fallen to 10 243 EUR in 2009 compared with 11 987 in 2008. Thus, it is still higher than in 2006 when GDP per capita was slightly below 10 thousand EUR.

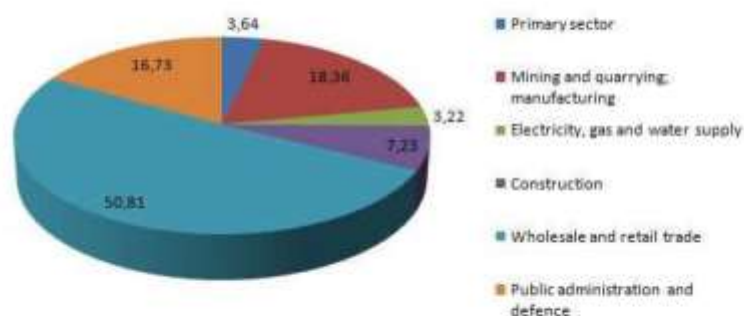
Figure 13 - A.13 Total GVA of Estonia (M, EUR, nominal prices)⁶



Data source: Statistics Estonia

The Estonian economy is very open. Most likely that in 2010, the Estonian economy will grow mostly due to exports and growing investments – supported by EU funds - will also support the upturn. Most likely private consumption will remain weak due to limited lending. It is expected that in 2011, internal demand gradually to contribute more to growth.

Figure 14 - A.14 Estonian GVA by sector (Total - 100%). Average of period 2000 – 2008.



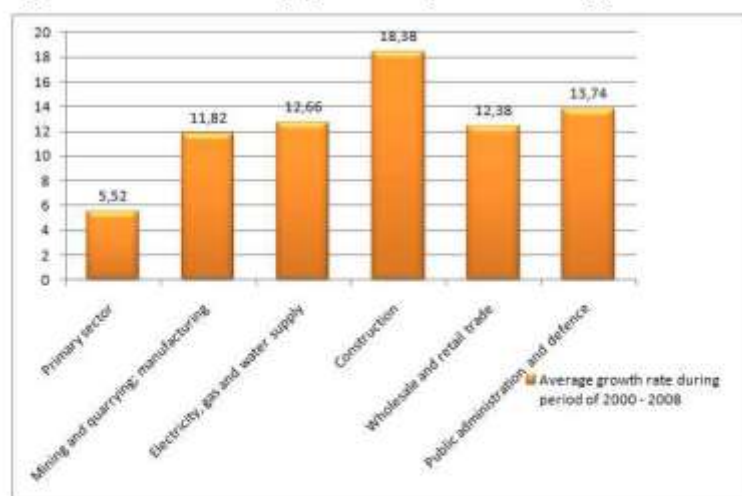
Data source: Statistics Estonia

Worthwhile to notice, that manufacturing has accounted only more than 18% of total GVA during period 2000 – 2008. In comparison, manufacturing in Finland accounted 24.4% of total GVA.

Figure below represents growth rate of each separate sector during the period 2000 – 2008.

⁶ Data for 2009 – forecast based on assumption that GVA drop will be similar to drop of GDP

Figure 15 - A.15 GVA average growth rate by industries during period of 2000 – 2008 (nominal prices)



Data source: Statistics Estonia

Joining EMU and future perspectives

The most important change in the economy will be the adoption of the euro in 2011. Euro adoption will improve risk estimates and may, therefore, attract additional inflows of foreign investments, which, in turn, will increase economic activity and create jobs.

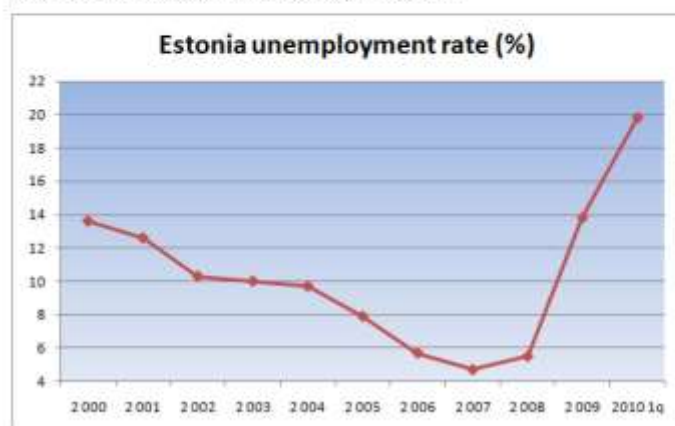
Current government has stated that it will maintain its conservative fiscal policy after joining EMU. In cooperation with different bodies from the public and private sectors, the Ministry of Economic Affairs has developed many programs to encourage and promote entrepreneurship. Some of these have been designed to help start businesses (subsidies for start-ups, loan guarantees, etc). Many of the programs are financed by EU funds and/or the government.

Employment

During last ten years Estonia has experienced decrease in unemployment rate from 13.8% in 2000 to 4.8% in 2007. During 2008 to 2009 period sharp increase in unemployment rate was as a consequence of economic recession.

Even though the Estonian economy has already started to recover, the labour market, most likely, will continue to deteriorate (data for 2010 1Q already indicates it) and will improve only with a lag. This means that unemployment can reach its highest level in the middle of the year 2010 and then diminish as greater foreign demand may increase the need for additional labour input.

Figure 16 - A.16 Unemployment rate in Estonia



Data source: Statistics Estonia

Main Regions along the alternative routes of Rail Baltica

Tables below compare the development within the three regions of Estonia that depending on the selected route option may be directly affected by Rail Baltica:

1. EE001 Põhja-Eesti (Tallinn);
2. EE004 Lääne-Eesti (Pärnu);
3. EE008 Lõuna-Eesti (Tartu).

Table 16 - A.16 Share of GDP created by county, % by administrative territory and year

	2000	2001	2002	2003	2004	2005	2006	2007
Republic of Estonia	100	100	100	100	100	100	100	100
EE001 Põhja-Eesti	55,6	56,7	57,1	57,8	59,3	59,8	58,5	60,5
EE004 Lääne-Eesti	9,6	9,4	9,4	9,1	8,4	8,4	8,8	8,4
EE008 Lõuna-Eesti	17,6	17,3	17,5	17,4	17,3	17,0	18,0	17,1

Data source: Statistics Estonia

An administrative unit that may be crossed by RB project creates 86% of total Estonian economy. It is worthwhile to notice, that GDP of Lõuna-Eesti region is more than two times bigger than GDP of Lääne-Eesti.

Table 17 - A.17 GVA analysis by region and year

	2000	2001	2002	2003	2004	2005	2006	2007	CAGR (%)
Estonia. Value added total, incl.	5 505	6 235	6 917	7 783	8 568	9 896	11 602	13 644	13,8
Mining and quarrying; manufacturing	1 036	1 206	1 325	1 491	1 580	1 797	2 081	2 456	13,1
Construction	306	348	406	448	513	703	965	1 237	22,1
Wholesale and retail trade	2 788	3 162	3 520	3 972	4 420	5 101	5 992	6 855	13,7
Põhja-Eesti (Tallinn)	3 122	3 559	3 997	4 612	5 119	5 791	7 016	8 146	14,7
% of total	57	57	58	59	60	59	60	60	
Mining and quarrying; manufacturing	480	561	620	717	751	863	1 000	1 156	13,4
% of total	46	46	47	48	48	48	48	47	
Construction	180	205	241	285	314	402	573	732	22,2
% of total	59	59	59	64	61	57	59	59	
Wholesale and retail trade	1 861	2 128	2 376	2 752	3 087	3 461	4 215	4 746	14,3
% of total	67	67	67	69	70	68	70	69	
Lääne-Eesti (Pärnu)	518	591	627	659	724	869	967	1 151	12,1
% of total	9	9	9	8	8	9	8	8	
Mining and quarrying; manufacturing	115	139	153	156	168	180	207	245	11,4
% of total	11	12	12	10	11	10	10	10	
Construction	34	37	39	45	47	71	96	122	19,9

	2000	2001	2002	2003	2004	2005	2006	2007	CAGR (%)
% of total	11	11	10	10	9	10	10	10	
Wholesale and retail trade	210	237	260	278	310	392	414	476	12,4
% of total	8	7	7	7	7	8	7	7	
Lõuna-Eesti (Tartu)	955	1 091	1 204	1 351	1 462	1 779	1 994	2 392	14,0
% of total	17	18	17	17	17	18	17	18	
Mining and quarrying; manufacturing	182	218	253	288	297	346	409	462	14,2
% of total	18	18	19	19	19	19	20	19	
Construction	48	49	65	73	86	133	175	234	25,2
% of total	16	14	16	16	17	19	18	19	
Wholesale and retail trade	386	444	491	539	597	749	813	980	14,2
% of total	14	14	14	14	14	15	14	14	

Data source: Statistics Estonia

As it can be noticed from table above Lõuna-Eesti (Tartu) creates added value on average two times more than Lääne-Eesti (Pärnu) region. Moreover, growth rate of Lõuna-Eesti (Tartu) region has been higher than average in Estonia and in manufacturing and construction sectors has even passed Põhja-Eesti (Tallinn) growth rates, while Lääne-Eesti (Pärnu) region growth rates have been less than average.

Table 18 - A.18 GVA per capita by region, year

Region	2000	2001	2002	2003	2004	2005	2006	2007
Põhja-Eesti (Tallinn)	5 947	6 796	7 654	8 846	9 825	11 108	13 419	15 571
Lääne-Eesti (Pärnu)	3 124	3 578	3 819	4 035	4 450	5 356	5 974	7 145
Lõuna-Eesti (Tartu)	2 701	3 101	3 435	3 867	4 198	5 122	5 750	6 924

Data source: Statistics Estonia

Tourism

Foreign travellers

According to Statistics Estonia, in 2009, 2.1 million foreign and domestic tourists stayed in accommodation establishments. Total number of tourists decreased by 10 per cent in 2009.

Economic crisis which inhibited the activity to travel around the world had a significant impact on the activities of accommodation establishments of Estonia. The number of tourists from Sweden decreased by a tenth, the number of tourists from Norway and Germany decreased 13% and 17%, respectively.

Table 19 - A.19 Number of foreign visitors in Estonia (only those who spent at least one night in Estonia)

	2006	2007	2008	2009
Foreign visitors	1 427 583	1 380 323	1 433 346	1 380 540
Nights spent in Estonia	3 020 367	2 915 456	2 932 662	2 740 696

Data source: Statistics Estonia

Significant cultural events which took place in summer attracted tourists from the neighbouring countries to come to Estonia. In 2009 as total, 3% more tourists from Finland and 14% more tourists from Russia stayed in accommodation establishments than in 2008.

Table below reflects Border crossings on leave from Estonia by year and citizenship. Most likely that RB may divert some percentage of Latvian, Lithuanian and EU25 tourists from sea, air and road to rail.

Table 20 - A.20 Border crossings on leave from Estonia by Year and Citizenship (thousands)

	2007	2008	2009
Lithuanian	111	111	100
Latvian	528	512	516
Swedish	278	261	166
Finnish	1 679	2 237	2 298
Russian	1 014	1 117	1 246
EU15	2 224	2 780	2 688
EU25	2 922	3 459	3 368
EU27	2 925	3 463	3 371
Other citizenship	699	824	952

Data source: Statistics Estonia

Estonian travellers

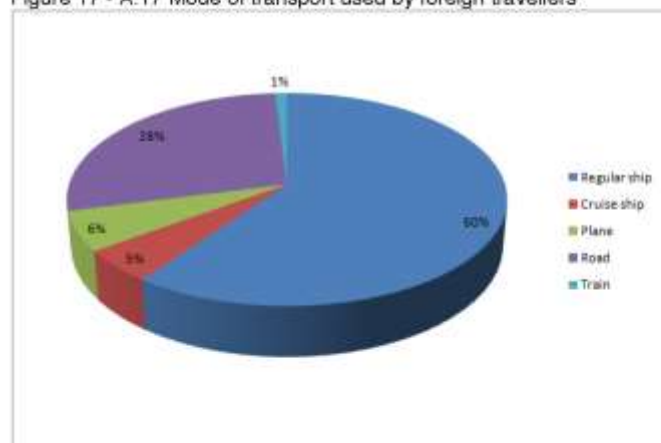
Table 21 - A.21 Outbound overnight trips of Estonian residents by Year, Country (thou.)

	2007	2008	2009
Total	677	691,5	752,1
Lithuania	24,5	31,3	24,4
Latvia	73,1	70,2	62,4
Finland	140,3	121,8	145,4
EU25	497,2	489,2	490,8

Data source: Statistics Estonia

Worthwhile to notice that Estonian Statistics provides data only for overnight trips. Thus, a real number of travellers (including day trips) is considered to be several times higher.

Figure 17 - A.17 Mode of transport used by foreign travellers



Source: Estonian Border Guard, 2003

As it can be noticed from above mentioned figure approximately 65% of foreigners enter Estonia by ship.

Forecasts Summary - Estonia

Big drop in GDP for 2009 most likely will be followed by a slight recovery during the next years, as global demand improves. Growth in the next two years, most likely, will be driven by higher demand in export markets especially as domestic demand is still weak in light of the ongoing internal devaluation (*total wage payments decreased by 14.4% and average wages by 5% in 2009*).

As a whole, commercial banks, EBRD, IMF, Eurostat and local authorities expect GDP on average to grow by around 0.8% in 2010, 2.9% in 2011, and 2.2% in 2012.

Long term forecasts by aforementioned institutions are made rarely. We have found few forecasts that states that in general Estonia's average long term growth may exceed EU's growth. Therefore, we have assumed average growth of 2.4% p.a. that is slightly above the forecasts for Latvia and Lithuania. We believe that joining EMU will improve Estonia's competitiveness in comparison with its neighbouring countries.

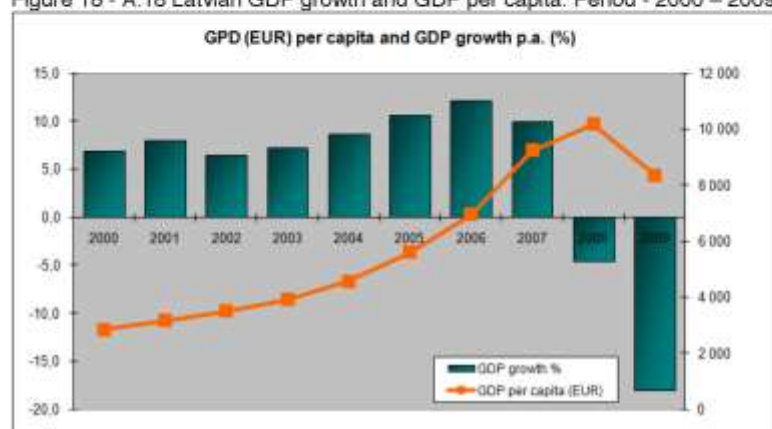
Trips to Estonia from Finland have grown by 0.6% in 2009 reaching new record levels. Both number of leisure and business tourists from Lithuania, Latvia and EU 25 countries has been stable during and last 3 years. Most likely that future growth strongly will be correlated with GDP growth, thus, in a long term period we can expect modest growth.

Latvia

GDP and GVA

During the period 2000-2008, the Latvian economy has grown by an average of 7.3% p. a., compared with an EU average of 2.4% p.a.

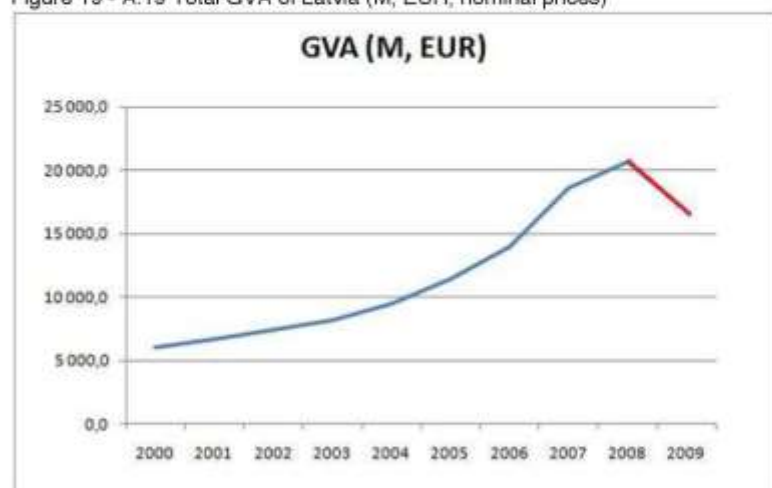
Figure 18 - A.18 Latvian GDP growth and GDP per capita. Period - 2000 – 2009.



Data source: Central Statistical Bureau of Latvia

After the economy contracted by 18% in 2009, quarterly positive growth of seasonally adjusted GDP resumed in the 1st quarter of 2010, mostly owing to growth in exports. This brought modest stabilization to the labour market – the job-seekers' rate seems to have peaked in the 2nd quarter of 2010 (~20%).

Figure 19 - A.19 Total GVA of Latvia (M, EUR, nominal prices)⁷



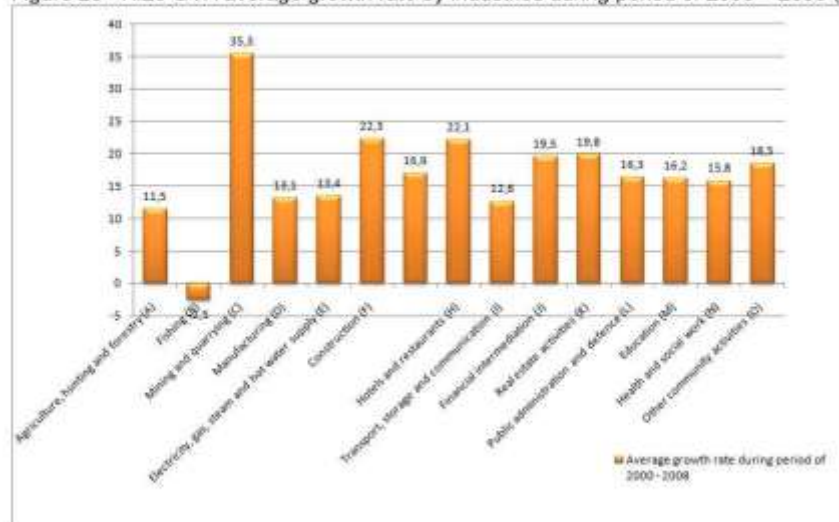
Data source: Central Statistical Bureau of Latvia

⁷ Data for 2009 – forecast based on assumption that GVA drop will be similar to drop of GDP

The debt burden in domestic trade has increased substantially during the years 2008 - 2009, as did debt servicing for households due to a decline in income (*the wage bill was down by ~25% in 2009*). Thus, the recovery of retail trade will be very slow, especially in non-food segment.

Figure below represents growth rate of each separate sector during the period 2000 – 2008.

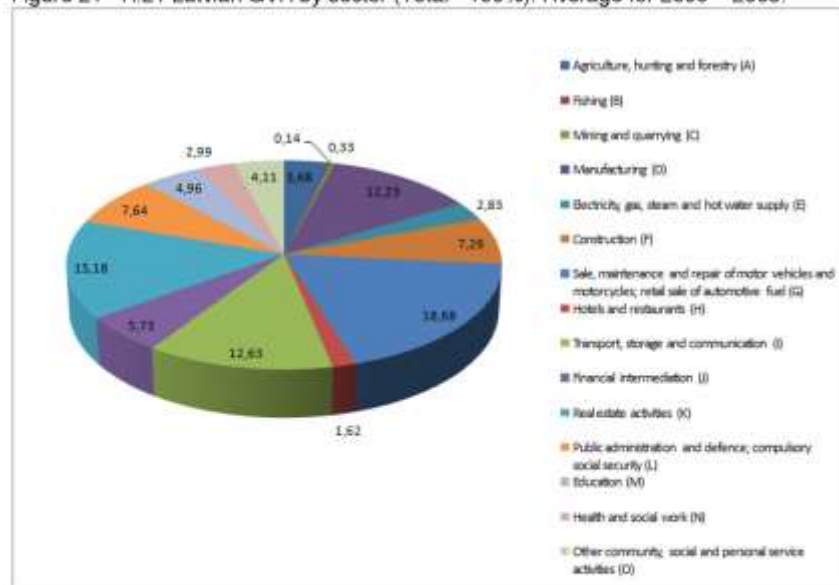
Figure 20 - A.20 GVA average growth rate by industries during period of 2000 – 2008 (nominal prices)



Data source: Central Statistical Bureau of Latvia

Such sectors as manufacturing and tourism, as well as IT, have a better outlook. The leverage is not that high in these sectors, and the debt burden is actually easing in, e.g., manufacturing. These are exporting sectors that are benefiting from recovering demand in trading-partner countries and thus are able to increase production volumes. For instance, capacity utilisation in manufacturing is growing, and in some industries by the middle of 2010 it is already close to pre-crisis levels.

Figure 21 - A.21 Latvian GVA by sector (Total - 100%). Average for 2000 – 2008.

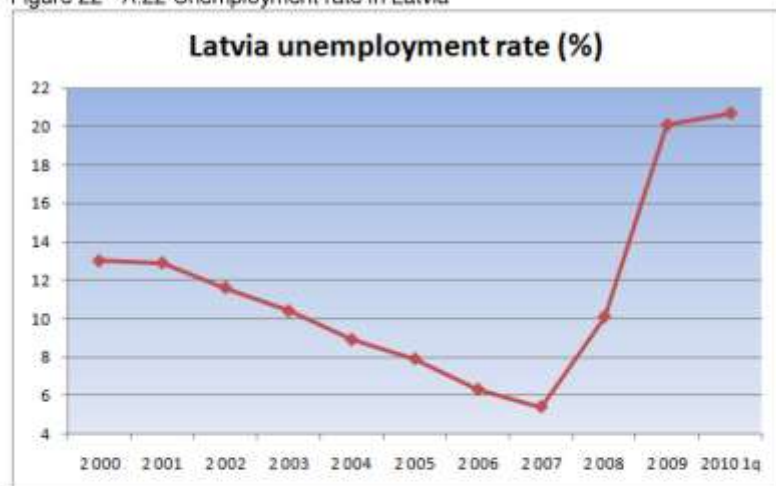


Data source: Central Statistical Bureau of Latvia

Employment

During last ten years Latvia has experienced slight decrease in unemployment rate from 13% in 2000 to 5.4% in 2007. During 2008 to 2009 period sharp increase in unemployment rate was as a consequence of economic recession.

Figure 22 - A.22 Unemployment rate in Latvia



Data source: Central Statistical Bureau of Latvia

Year 2010 and growing exports has brought some stabilization to the labour market –unemployment rate seems to have peaked in the 2nd quarter of 2010 (~20-21%). The labour market, most likely, will remain weak for the next few years, with the unemployment rate still in excess of 15% and cautious wage growth starting only in 2011. Employment, most likely, will begin to grow only in 2011 and, unless job creation is actively supported by the government, its growth, most likely, will be slow.

Main Regions along the alternative routes of Rail Baltica

There are four NUTS3 regions that are along the Rail Baltica alternative routes:

- (1) Vidzeme region;
- (2) Riga region;
- (3) Riga;
- (4) Zemgale region.

Table 22 - A.22 Share of GDP created by year and by regions

Region	2001	2003	2005	2007
Latvia total	100	100	100	100
LV006 Riga	54,5	56,1	57,3	54,4
LV007 Riga Region (except Riga)	10,3	10,1	11,1	12,3
LV009 Zemgale Region	7,1	7,2	7	8
LV008 Vidzeme Region	6	6,4	6,2	6,7
LV003 Kurzeme Region	12,6	11,9	10,7	10,3
LV005 Latgale Region	9,4	8,2	7,6	8,2

Data source: Central Statistical Bureau of Latvia

SUMMARY OF LEADING INDUSTRIES BY REGION, 2008

Table 23 - A.23 Summary of leading industries (M, lats), 2008

Region / Industry	Total industry	Food	Wood	Minerals	Iron and steel	Furniture	Electricity, gas, district heating	Other
Riga	3 084	312	331	114	184	66	936	1 142
Riga region	832	220	141	88	72	29	25	258

Region / Industry	Total industry	Food	Wood	Minerals	Iron and steel	Furniture	Electricity, gas, district heating	Other
Vidzeme (Valmiera, Cesis, Valka)	430	100	131	56	5	26	9	103
Zemgale (Jelgava)	484	122	99	17	34	8	23	181

Data source: Central Statistical Bureau of Latvia

Tourism

Foreign travellers

The results of the survey (May 2010) conducted by the Central Statistical Bureau of Latvia show that compared to 2008 in 2009 foreign travellers crossed Latvia's border 4.7 mln times which is less by 14%. From the total number of foreign visitors 72% spent less than 24 hours in Latvia.

Most of the foreign travellers were from neighbouring countries: 37% from Lithuania, 20% - from Estonia, 6% - from Russia, 6% - from Sweden, 5% - from Germany and 4% - from Poland.

Table 24 - A.24 Border crossings on enter to Latvia by citizenship (thousands)

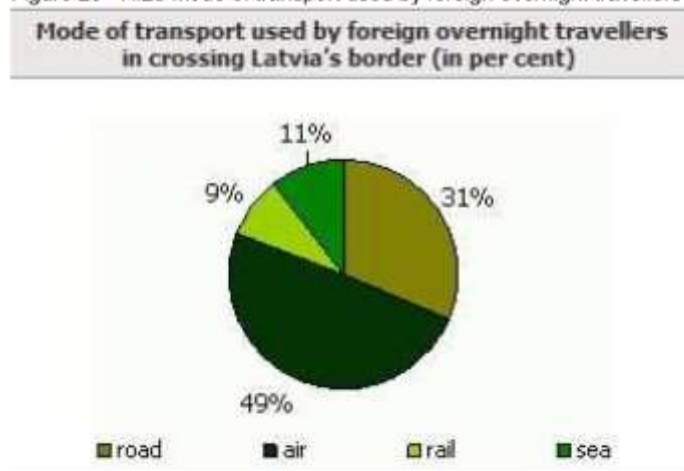
Country	Number of border crossings (thousands)
Lithuania	1 739
Estonia	940
Russia	287
Sweden	277
Germany	240
Poland	183
Others	1 034
Total	4 700

Data source: Central Statistical Bureau of Latvia

Purpose of visit in year 2009 is distributed as following:

- (1) 44% - recreation;
- (2) 27% - business;
- (3) 20% - visit to friends and relatives;
- (4) 9% - other.

Figure 23 - A.23 Mode of transport used by foreign overnight travellers



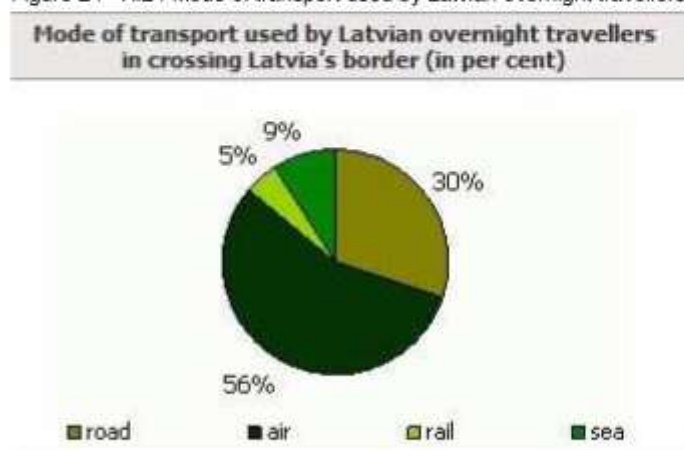
Data source: Central Statistical Bureau of Latvia

As it can be noticed from figure above 31% of travellers enters Latvia by road totalling ~1,457 million persons.

Latvian travellers

In 2009 Latvian residents crossed Latvia's border 3.1 mln times, which is less by 13.2% than in 2008. In 2008 on average Latvian travellers spent 4.7 visitor nights abroad. Similarly as in previous surveys, also this time Latvian travellers visited neighbouring countries the most – Lithuania (30%), Russia (18%), Estonia (11%) and Germany (8%).

Figure 24 - A.24 Mode of transport used by Latvian overnight travellers



Data source: Central Statistical Bureau of Latvia

Forecasts Summary - Latvia

Overall, domestic demand will be weak for the next couple of years due to almost non-existent lending and ongoing de-leveraging. Another factor that will slow the recovery of local demand is fiscal consolidation expected in 2011 and 2012, implying public spending cuts, and redistribution of the tax burden.

The economy during last few years has become polarised. Recovery in demand in such domestic services as construction, real estate, domestic trade, and financial services will be slow; meanwhile, demand in such exporting sectors as manufacturing, tourism, IT, and other commercial services is expected to grow faster and to be key drivers of Latvian economy.

Activity and resources will become more concentrated around main regional centres. The dominance of Riga in the economy will most likely increase (currently, about 55% of the Latvian GDP is produced in Riga).

As a whole, commercial banks, EBRD, IMF, Eurostat and local authorities expect GDP on average to contract -2.7% in 2010 and to grow by around 1.2% in 2011, 1.9% in 2012, and 2.8% in 2013⁸.

Long term forecasts by aforementioned institutions are made rarely. We have found few forecasts that states that in general Latvia's average long term growth may exceed EU's growth. Therefore, we have assumed average growth of 2.2% p.a.

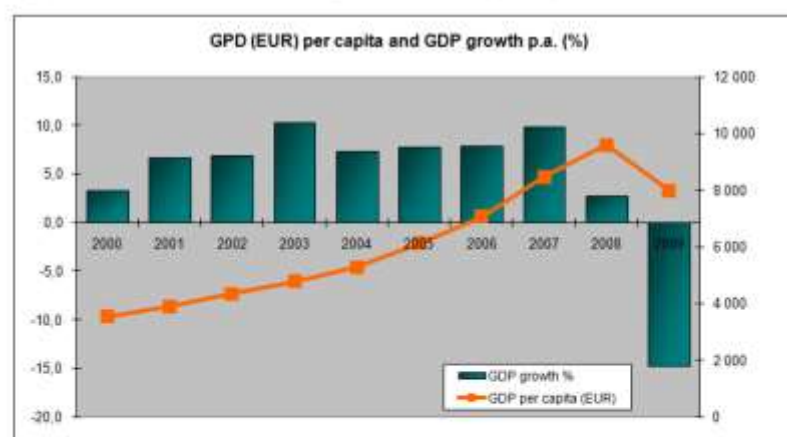
The results of the survey (May 2010) conducted by the Central Statistical Bureau of Latvia show in 2009 foreign travellers crossed Latvia's border 4.7 mln times (less by 14% in comparison with 2008). In 2009 Latvian residents crossed Latvia's border 3.1 mln times (less by 13.2% in comparison with 2008). Travellers has crossed border of Latvia 2.38 million times by road. Both numbers are closely correlated with GDP drop in Baltic States. This leads us to conclusion that future growth strongly will be correlated with GDP growth.

Lithuania

GDP and GVA

During the period 2000-2008, the Lithuanian economy has grown by an average of 7.0% p. a., compared with an EU average of 2.4% p.a.

Figure 25 - A.25 Lithuanian GDP growth and GDP per capita. Period - 2000 – 2009.

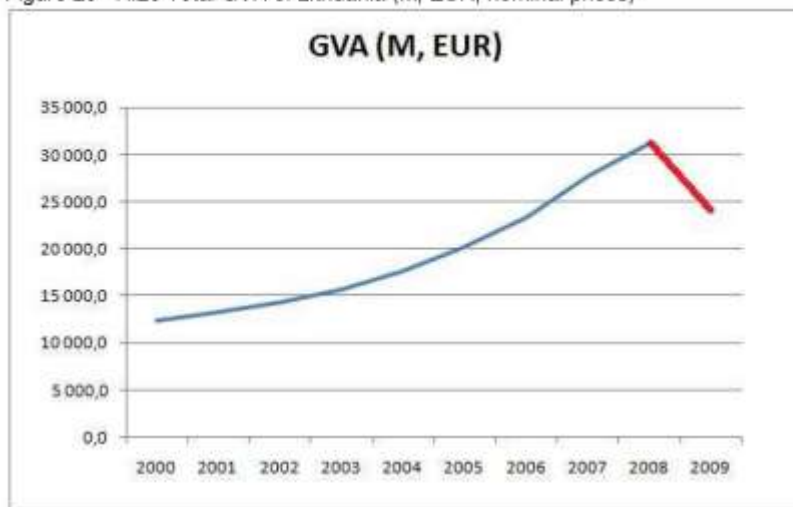


Data source: Statistics Lithuania

After the economy contracted by 14.8% in 2009, quarterly positive growth of seasonally adjusted GDP resumed in the 1st quarter of 2010, mostly owing to growth in exports.

⁸ Detailed GVA forecasts for NUTS3 level are available in Annex ____ of the Report.

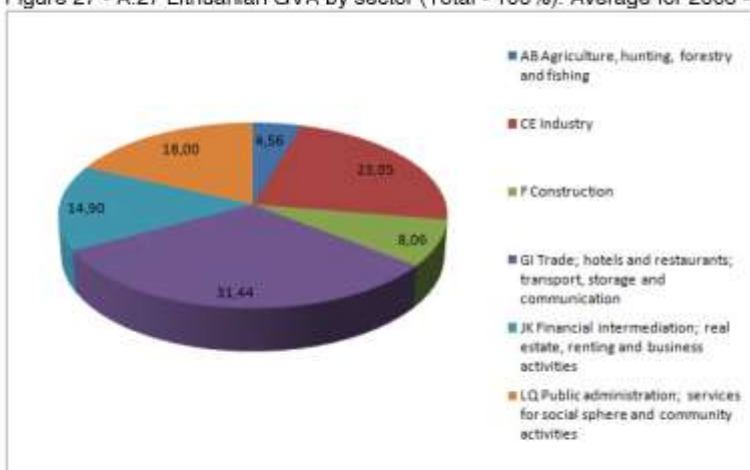
Figure 26 - A.26 Total GVA of Lithuania (M, EUR, nominal prices)⁹



Data source: Statistics Lithuania

The Lithuanian economy is still being affected by the weak global economy and deleveraging. Internal devaluation continues. Years 2010 and 2011 will still be challenging, as domestic demand remains weak, the real estate market continues to stagnate, and the high unemployment rate will put further pressure on household consumption.

Figure 27 - A.27 Lithuanian GVA by sector (Total - 100%). Average for 2000 – 2008.



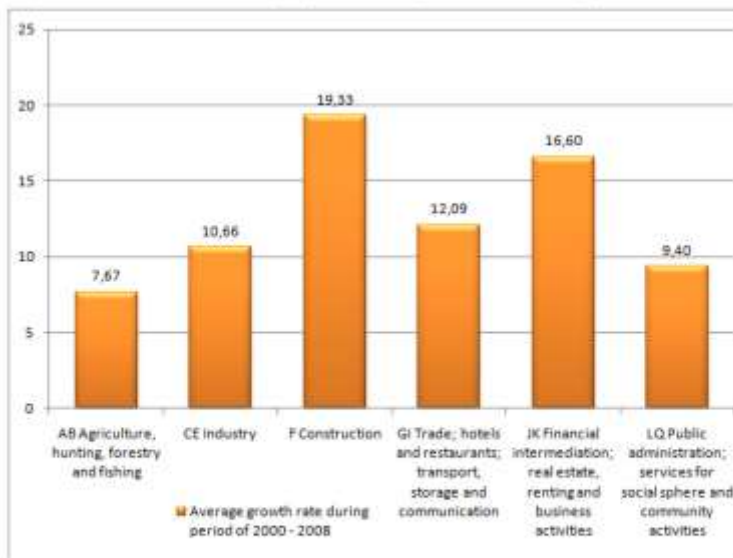
Data source: Statistics Lithuania

The economic recovery, most likely, will initially be driven by Lithuania's exporting manufacturing sector, with the paper, wood, and plastics industries taking the lead.

⁹ Data for 2009 – forecast based on assumption that GVA drop will be similar to drop of GDP

Figure below represents growth rate of each separate sector during the period 2000 – 2008.

Figure 28 - A.28 GVA average growth rate by industries during period of 2000 – 2008 (nominal prices)



Data source: Statistics Lithuania

According to provisional data of Statistics Lithuania, the general government deficit in 2009 made 8.9 per cent of GDP. At the end of 2009, the general government debt at nominal value amounted 29.3 per cent of GDP. At the end of 2008, the general government debt amounted 15.6 per cent of GDP.

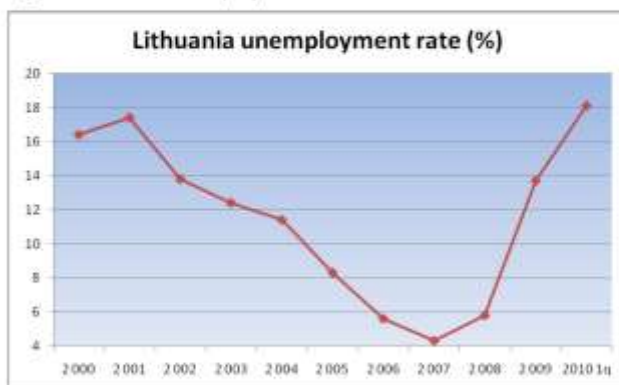
Joining EMU

The government is committed to euro adoption – it has set a goal to achieve all Maastricht criteria requirements by 2012 in order to join in 2014.

Employment

During last ten years Lithuania has experienced slight decrease in unemployment rate from 16.4% in 2000 to 4.3% in 2007. During second half of 2009 and 1 quarter of 2010 there was fierce increase in unemployment rate due to global economic fall down. By the end of 1st quarter of 2010 unemployment rate has reached 18.1 per cent.

Figure 29 - A.29 Unemployment rate in Lithuania



Data source: Statistics Lithuania

Lithuania's high unemployment rate continues to push wages down, while a decline in labour costs is encouraging producers to enter Lithuanian market. At the 2010 productivity starts to recover. Competitiveness is gradually being restored that in a long-term will lead unemployment to diminish.

Of course, high unemployment is putting pressure on public finances and nonperforming loans, and, due to looming emigration problems, will be one of the main challenges in the short and medium terms.

Main Regions along the alternative routes of Rail Baltica

There are five NUTS3 regions that are along the Rail Baltica alternative routes:

- (1) Šiauliai region;
- (2) Panevėžys region;
- (3) Kaunas region;
- (4) Marijampole region;
- (5) Alytus region.

Table 25 - A.25 Share of GDP created by year and by regions

Region	2001	2003	2005	2007
Republic of Lithuania	100,0	100,0	100,0	100,0
LT001 Alytus County	4,3	3,8	3,6	3,4
LT002 Kaunas County	19,4	19,2	19,3	19,3
LT003 Klaipėda County	12,1	11,7	11,7	11,5
LT004 Marijampolė County	3,5	3,6	3,4	3,2
LT005 Panevėžys County	7,5	6,9	6,8	5,9
LT006 Šiauliai County	7,6	7,7	7,7	7,4
LT007 Tauragė County	2,3	2,0	1,8	1,7
LT008 Telšiai County	4,4	4,3	4,4	4,3
LT009 Utena County	4,7	4,7	4,4	4,0
LT00A Vilnius County	34,3	36,1	36,9	39,4

Data source: Statistics Lithuania

Most of the several route alternatives of Rail Baltica main distinction are that either route passes Šiauliai or Panevėžys. Therefore table below compares those two regions in more details.

Table 26 - A.26 GVA analysis by region and year

Region / Position/ Year	2000	2001	2002	2003	2004	2005	2006	2007	CAGR (%)
Lithuania GVA total (M, EUR), incl.	12 349	13 261	14 258	15 751	17 638	20 186	23 349	27 791	12,3
Industry	2 885	3 201	3 248	3 780	4 422	4 989	5 473	6 023	11,1
Construction	744	787	886	1 104	1 256	1 510	2 021	2 792	20,8
Trade; hotels; transport and communication	3 795	4 164	4 707	5 173	5 637	6 436	7 274	8 598	12,4
LT005 Panevėžys County, GVA total (M, EUR)	887	940	971	1 032	1 193	1 272	1 372	1 545	8,3
% of total	7,2	7,1	6,8	6,6	6,8	6,3	5,9	5,6	
Industry	266	297	293	323	400	423	393	365	4,6
% of total	9,2	9,3	9,0	8,6	9,0	8,5	7,2	6,1	
Construction	54	56	61	72	83	96	126	175	18,2
% of total	7,3	7,1	6,9	6,5	6,6	6,4	6,2	6,3	
Trade; hotels; transport and communication	208	228	251	254	277	306	331	394	9,6
% of total	5,5	5,5	5,3	4,9	4,9	4,7	4,5	4,6	
LT006 Šiauliai County, GVA total (M, EUR)	930	967	1 020	1 144	1 333	1 456	1 659	1 948	11,1
% of total	7,5	7,3	7,2	7,3	7,6	7,2	7,1	7,0	
Industry	188	198	203	240	305	342	378	410	11,8
% of total	6,5	6,2	6,2	6,4	6,9	6,9	6,9	6,8	
Construction	45	45	56	78	99	108	136	181	21,9
% of total	6,1	5,7	6,4	7,0	7,9	7,2	6,8	6,5	

Region / Position/ Year	2000	2001	2002	2003	2004	2005	2006	2007	CAGR (%)
Trade; hotels; transport and communication	272	290	316	364	403	441	484	567	11,1
% of total	7,2	7,0	6,7	7,0	7,2	6,8	6,7	6,6	

Data source: Statistics Lithuania

As it can be noticed from table above Šiauliai creates added value on average 25 per cent more than Panevėžys region. Moreover, growth rate of Šiauliai region has been comparable with average growth in Lithuania and in manufacturing and construction sectors has even passed average growth rates, while Panevėžys region growth rates have been less than average.

Tourism industry

Foreign travellers

Statistics Lithuania informs that, based on the data of the inbound tourism survey (May 2010), the number of overnight trips of foreigners in 2009, compared to 2008, decreased by 16.8 per cent (from 1.6 million in 2008 to 1.3 million in 2009), that of same-day trips – by 6.6 per cent (from 2.8 million in 2008 to 2.7 million in 2009).

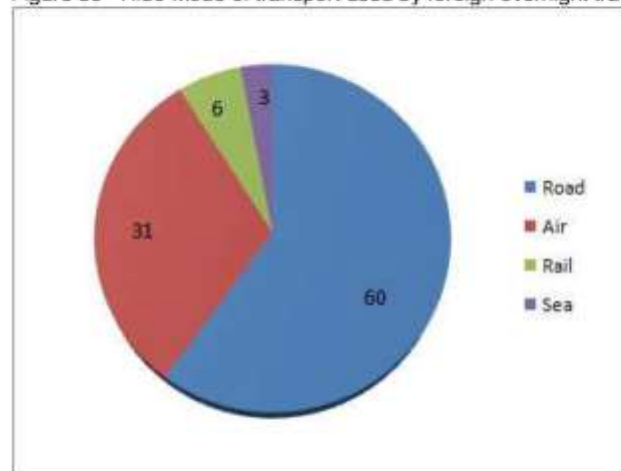
Most foreign visitors with one or more overnight stays arrived in Lithuania for leisure (63.8 per cent), 36.2 per cent – for business purposes.

In 2009, most overnight visitors arrived from Belarus (18%, or 247.3 thous.), Russia (14%, or 189.4 thous.), Latvia (11%, or 149.4 thous.), Poland (11%, or 141.5 thous.), and Germany (10%, or 135.2 thous.).

In 2009, compared to 2008, the number of overnight trips from Belarus increased by 18.6%. The largest impact on the decrease in the number of trips in 2009, compared to 2008, was made by a decrease in the number of trips from Poland – by 22%, Russia – by 16.7%, and Latvia – by 17.9%.

In 2009, almost half of same-day visitors arrived from Latvia (1119.1 thousand, or 42%), Poland (748.9 thousand, or 28%), Belarus (284.8 thousand, or 11%), Russia (226.9 thousand, or 9%), and Estonia (154.1 thousand, or 6%).

Figure 30 - A.30 Mode of transport used by foreign overnight travellers



Data source: Statistics Lithuania

Lithuanian travellers

In 2009 Lithuanian residents' travelling abroad decreased more strongly than in the previous years. In total 1.3 million trips abroad have been made (included only those with an overnight stay) what is 26.7% less than in 2008 (leisure trips down by 24.4%, business trips down by 35.7%).

In 2009 leading travelling destinations were:

- (1) Belarus – 15.1% (194,5 thousands);
- (2) Latvia – 12.5% (160,6 thousands, down from 220,2 thousands year before);
- (3) Poland – 9.8% (125,9 thousands);

(4) Germany – 8.1% (104,4 thousands);

(5) Russia – 7.6% (98,3 thousands).

The results of the surveys (May 2010) conducted by the Central Statistical Bureau of Lithuania show that travelling in 2009 to and from countries (Poland, Finland, Latvia and Lithuania) that closely related to RB project represent more than 50% of total travellers.

Forecasts Summary - Lithuania

The economy bottomed out in the 1st quarter of 2010, and it is forecasted that GDP will contract by 0.1% in 2010, increase by 2.3% in 2011, and 3.9% in 2012. Long-term forecast is 2.2% p.a.

Overall, domestic demand, most likely, will be weak for the next couple of years due to diminished lending and ongoing de-leveraging. Another factor that will slow the recovery of local demand is fiscal consolidation expected in 2011 and 2012, implying public spending cuts, and redistribution of the tax burden.

Activity and resources will become more concentrated around main regional centres. The dominance of Kaunas and Vilnius in the economy will most likely increase (currently, about 59% of the Lithuanian GDP is produced in Vilnius and Kaunas regions).

As a whole, commercial banks, EBRD, IMF, Eurostat and local authorities expect GDP on average to contract ~0.1% in 2010 and to grow by around 2.3% in 2011, 3.9% in 2012, and 3.5% in 2013¹⁰.

Long term forecasts by aforementioned institutions are made rarely. We have found few forecasts that states that in general Latvia's average long term growth may exceed EU's growth. Therefore, we have assumed average growth of 2.2% p.a.

Poland

GDP and GVA

Poland is one of a few countries has avoided a recession (GDP grew 1.7% in 2009), and the economy is set to improve during 2010 and 2011. Poland's resilience to the global economic crisis can be explained by its rather small export dependence.

Figure 31 - A.31 Poland GDP growth and GDP per capita. Period - 2000 – 2009.

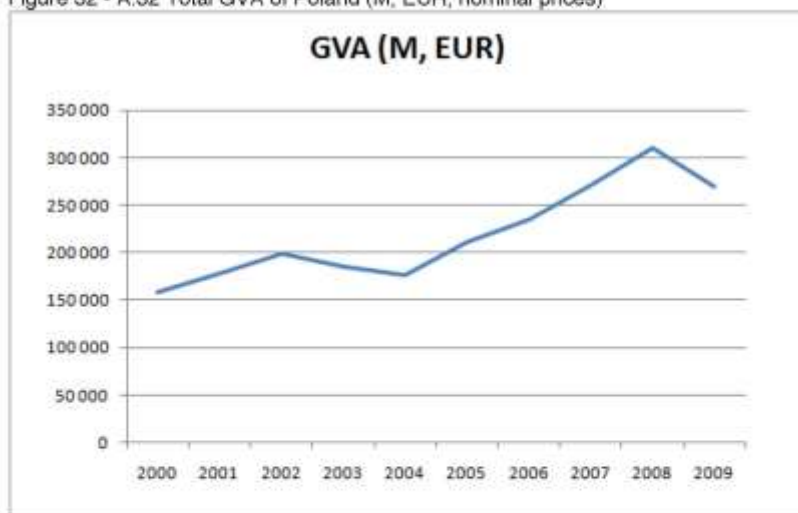


Data source: Central Statistical Office of Poland

Importantly, the country also had relatively sound financial sector developments (lending was by far less extensive than in Baltic countries) and small macroeconomic imbalances before the crisis. Worthwhile to notice, Poland has been affected positively by its flexible exchange rate since zloty devaluation by third had a positive effect on trading balance.

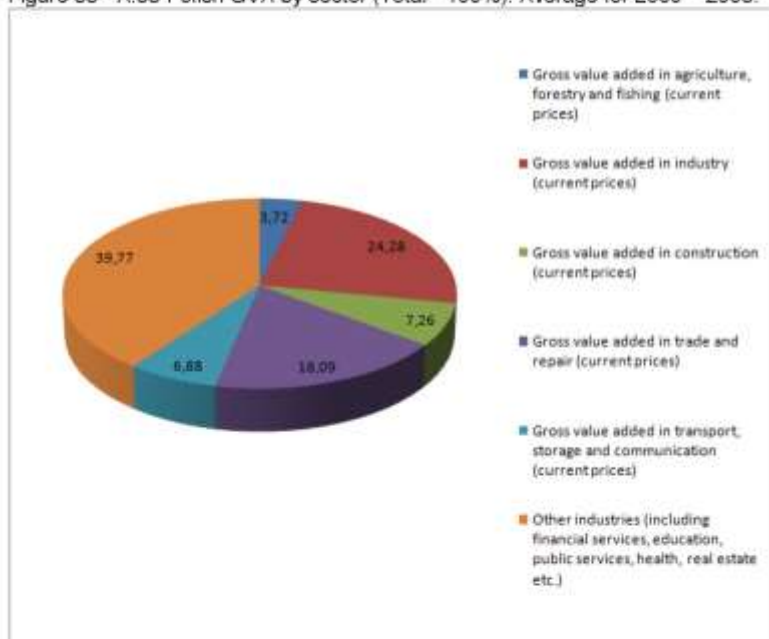
¹⁰ Detailed GVA forecasts for NUTS3 level are available in Annex ____ of the Report.

Figure 32 - A.32 Total GVA of Poland (M, EUR, nominal prices)¹¹



Data source: Central Statistical Office of Poland

Figure 33 - A.33 Polish GVA by sector (Total - 100%). Average for 2000 – 2008.



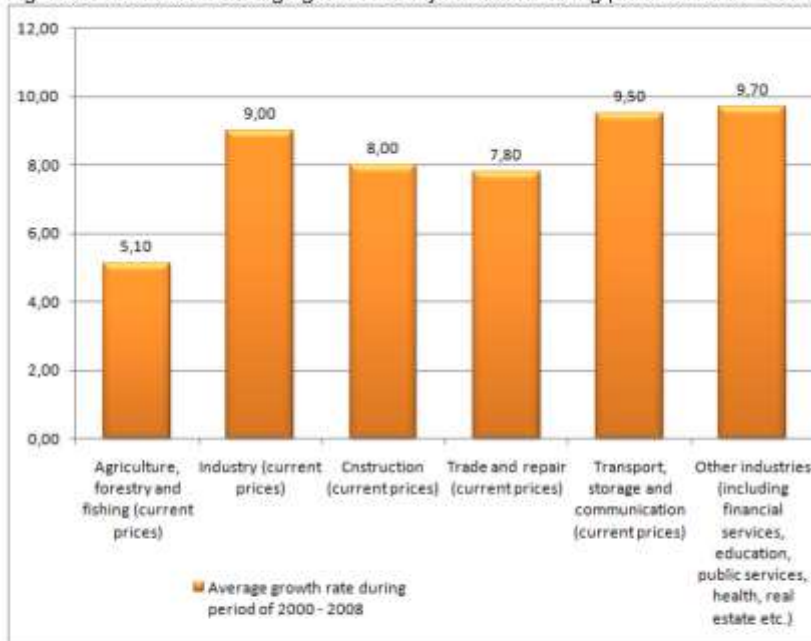
Data source: Central Statistical Office of Poland

As it can be noticed from above mentioned figure production, mining and quarrying accounts 24.3% of total GVA.

¹¹ Data for 2009 – forecast based on assumption that GVA increase is similar to GDP growth. GVA drop in 2009 (in EUR) is related with a devaluation of zloty value of which in 2009 fell from 3,6 to 4,1 zloty per EUR. In terms of national currency (zloty) GVA experienced growth of 1.7%.

Figure below represents growth rate of each separate sector during the period 2000 – 2008.

Figure 34 - A.34 GVA average growth rate by industries during period of 2000 – 2008 (nominal prices)



Data source: Central Statistical Office of Poland

Joining EMU

Because Poland's public finances are deteriorating and the budget deficit reached over 7% last year, the ratio of debt to GDP, which stands at ~ 50% mark, is also rising.

The goal of joining EMU in 2012 recently has been altered, and a new goal for 2015 was set. It will give more time to bring the fiscal deficit down to 3% and ensure that the debt ratio stays below 60%.

Populated places along the alternative routes of Rail Baltica

WARSAW

Warsaw is the capital and largest city of Poland. Its population as of June 2009 was estimated at 1,711,466 and the Warsaw metropolitan area at approximately 2,785,000.

Warsaw is home to many domestic and international companies. In 2006, 304,016 companies were registered in the city. Ever-growing business community has been noticed globally, regionally, and nationally. MasterCard Emerging Market Index has noted Warsaw's economic strength and commercial centre. Moreover, Warsaw was ranked as the 7th greatest emerging market.

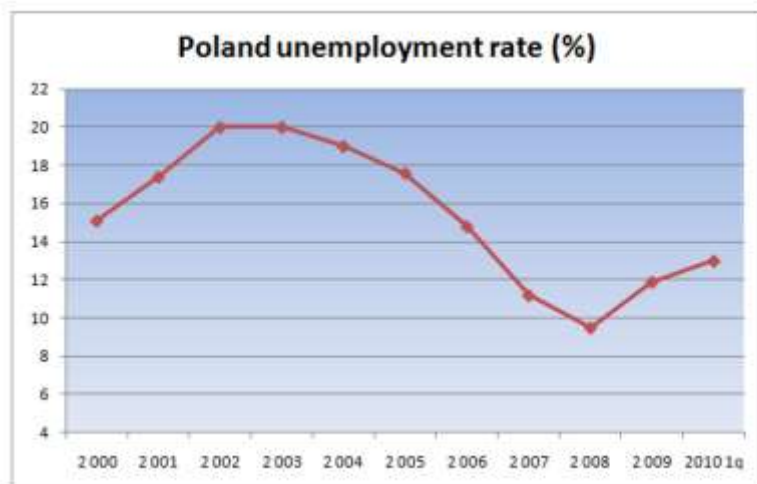
The GDP per capita in Warsaw was more than EUR 15 000 in 2008.

Employment

During last ten years Poland has experienced slight decrease in unemployment rate from 20% in 2003 to 9.5% in 2008. Most likely that fall in unemployment rate was not as fast as in Baltics due to more moderate lending.

During second half of 2009 and 1 quarter of 2010 unemployment rate has risen to 13 percent reaching levels unprecedented since 2006.

Figure 35 - A.35 Unemployment rate in Poland



Source: Central Statistical Office of Poland

Tourism industry

Foreign travellers

Table 27 - A.27 Foreign tourists accommodated from Baltic States and Finland

Country	2005	2006	2007	2008	2009
Estonia	40 268	49 677	54 413	41 789	34 592
Finland	41 514	47 190	42 949	46 101	47 492
Lithuania	76 000	88 740	108 189	111 383	101 950
Latvia	31 620	36 702	59 175	55 895	38 112

Source: Central Statistical Office of Poland

Forecasts Summary - Poland

In 2009, GDP grew by 1.7%, and it is expected that growth will increase to 2.6% in 2010, 3.2% in 2011, and 3.6% in 2012. It is likely that domestic demand will grow (especially public investments), but household consumption is expected to stay weak due to a deteriorating labour market.

Long-term forecast is 2.0% p.a.

Exports may also strengthen due to weak zloty and economic recovery in Eurozone. Risks include growing unemployment and deteriorating fiscal balances (in addition, financial sector expects the zloty to appreciate somewhat against the euro).

Thus Poland's outlook seems optimistic as GDP per capita converges with the rest of the EU's and the population grows somewhat.

1.1.7 Disposable income

Table below indicates disposable income per household member.

Table 28 - A.28 International disposable income in Finland, Baltic States and Poland

Years / Country	Annual disposable income per person, EUR				
	Finland	Estonia	Latvia	Lithuania	Poland
2000	20 865	1 674		1 444	1 682
2001	21 042	1 755		1 425	1 934
2002	21 603	1 917		1 467	2 128
2003	22 373	2 139		1 590	2 049

Years / Country	Annual disposable income per person, EUR				
	Finland	Estonia	Latvia	Lithuania	Poland
2004	23 360	2 323	2 586	1 723	1 803
2005	23 860	2 666	3 200	2 015	2 142
2006	24 322	3 331	4 049	2 366	2 534
2007	25 087	4 054	5 919	2 987	2 752
2008	24 807		6 624	3 430	3 355

Data source: National Statistical Offices

1.1.8 Summary

Tables below reflect summary of most important data of each country. Table has been supplemented with data of other countries that to some extent may influence results of RB project (mainly due to freight diverted from road and sea to rail).

GDP forecasts have been compiled from several sources (as of July, 2010):

- (1) EBRD;
- (2) IMF;
- (3) Eurostat;
- (4) Local authorities (Ministry of Finance, Central bank);
- (5) Credit rating agencies.

Forecasts reflected in the table below represent average values of gathered forecasts.

Table 29 - A.29 GDP forecast for countries influenced by RB

Country, Year	Forecast (%)						
	2008	2009	2010	2011	2012	2013	Average long term growth
FINLAND							
GDP, M EUR	184 179	170 971					
GDP growth %	2,6	-7,2	1,7	2,0	2,5	2,9	1,8
GDP per capita, EUR	34 663	32 025					
ESTONIA							
GDP, M EUR	16 073	13 730					
GDP growth %	2,9	-14,6	0,8	2,9	2,2	3,8	2,4
GDP per capita	11 987	10 243					
LATVIA							
GDP, M EUR	23 157	18 845					
GDP growth %	-4,6	-18,0	-2,7	1,2	1,9	2,8	2,2
GDP per capita	10 174	8 358					
LITHUANIA							
GDP, M EUR	32 203	26 650					
GDP growth %	2,8	-14,8	-0,1	2,3	3,9	3,5	2,2
GDP per capita	9 590	7 980					

[illegible]

Country, Year	Forecast (%)						
	2008	2009	2010	2011	2012	2013	Average long term growth
GDP, M UAH	948 056	N/A					
GDP growth %	2,3	N/A	3,3	3,6	4,8	4,2	3,5
GDP per capita, UAH	20 495	N/A					
BELARUS							
GDP, B BYR	129 791	136 790					
GDP growth %	10,2	0,2	2,6	4,3	5,0	5,0	3,5
GDP per capita, thou. BYR	13 407	14 153					

Table below clearly indicates that proportion of manufacturing and mining in Latvia and Estonia is lower than in other RB countries. Although this fact could be considered as a potential for higher growth in future that may raise demand also in transport area, we would avoid doing this since current trend has been negative for these countries and factors encouraging or hindering manufacturing are of unpredictable and volatile nature (for example, taxing).

Table 30 - A.30 GVA and its structure for RB route countries

	Country/Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total GVA (B. EUR)	Finland	115,1	121,9	125,3	126,2	132,5	136,7	143,7	156,8	161,0
	Estonia	5,5	6,2	6,9	7,8	8,6	9,9	11,6	13,6	14,3
	Latvia	6,1	6,7	7,4	8,1	9,5	11,4	14,0	18,6	20,7
	Lithuania	12,3	13,3	14,3	15,8	17,6	20,2	23,3	27,8	31,1
	Poland	157,7	180,6	198,6	186,1	174,8	211,3	245,0	264,0	310,1
Manufacturing, mining (%)	Finland	26,7	26,3	25,4	24,7	24,0	23,7	24,5	24,7	22,8
	Estonia	18,8	19,3	19,2	19,2	18,4	18,2	17,9	18,0	17,7
	Latvia	13,9	14,1	13,9	13,6	13,4	12,9	12,1	11,8	11,2
	Lithuania	23,4	24,1	22,8	23,9	25,1	24,7	23,4	21,7	20,9
	Poland	20,9	19,0	18,6	19,8	21,6	21,0	21,2	21,2	21,0
Construction (%)	Finland	6,2	6,0	5,7	5,9	6,2	6,7	6,8	6,9	7,3
	Estonia	5,6	5,6	5,9	5,8	6,0	7,1	8,3	9,1	8,3
	Latvia	6,2	5,6	5,5	5,6	5,8	6,1	7,4	9,0	9,0
	Lithuania	6,0	5,9	6,2	7,0	7,1	7,5	8,7	10,0	9,8
	Poland	7,7	7,0	6,3	5,8	5,5	6,0	6,4	7,1	7,3
Wholesale, trade, services (%)	Finland	41,2	41,8	42,4	42,0	42,6	42,3	41,9	41,7	42,6
	Estonia	50,7	50,7	50,9	51,0	51,6	51,5	51,7	50,2	49,7
	Latvia	50,9	52,4	53,0	53,3	54,2	55,6	55,9	54,1	52,9
	Lithuania	43,6	44,2	46,0	45,7	44,8	46,4	46,8	48,0	47,9
	Poland	43,3	45,2	45,0	45,4	46,8	46,9	47,4	46,4	47,2

Table below reflects GVA forecast for all three Baltic countries.

GVA has been forecasted using trend extrapolation method applying existing economic conditions (expected changes in demography and tax or monetary policies, for example) and consensus methods by gathering list of expert opinions thus creating synthesis of factors affecting GVA changes in the future.

Table 31 - A.31 GVA forecast for Baltic countries

EE00 Estonia	2009	2010	2011	2012	2013	2015	2020	2025	2030	2035	2040	2045
Value added total (Estonia), incl.	11 875,1	11 932,2	12 325,0	12 682,8	13 185,1	13 948,2	15 712,4	17 749,5	20 105,0	22 832,6	25 994,9	29 666,1
EE001 Põhja-Eesti	7 079,9	7 186,0	7 454,6	7 715,6	8 075,1	8 597,5	9 830,2	11 267,1	12 942,9	14 898,4	17 181,6	19 848,8
EE004 Lääne-Eesti	1 019,5	990,3	1 009,7	1 023,1	1 042,7	1 073,8	1 153,2	1 239,4	1 332,9	1 434,5	1 544,8	1 664,6
EE007 Kirde-Eesti	894,3	879,6	901,6	913,6	936,2	964,9	1 037,1	1 115,5	1 200,6	1 293,0	1 393,2	1 502,2
EE006 Kesk-Eesti	797,6	787,0	808,0	819,5	838,4	865,8	934,5	1 009,2	1 090,4	1 178,5	1 274,4	1 378,6
EE008 Lõuna-Eesti	2 083,8	2 089,3	2 151,0	2 211,0	2 292,6	2 446,4	2 757,3	3 118,3	3 538,3	4 028,2	4 600,9	5 271,9
Value added total (Latvia) incl.	17 118,8	16 297,5	16 325,3	16 707,5	17 053,0	17 740,6	19 786,4	22 156,8	24 913,3	28 130,6	31 899,5	36 330,7
RIGA (LV006)	9 208,4	8 798,2	8 787,0	8 973,6	9 165,5	9 540,0	10 963,6	12 643,4	14 630,8	16 988,2	19 791,3	23 132,3
LV007 Riga Region (except Riga)	2 096,1	1 978,9	1 973,5	2 012,7	2 052,8	2 135,4	2 406,3	2 718,6	3 080,0	3 500,0	3 990,6	4 566,8
LV008 Vidzeme Region	1 249,1	1 187,0	1 197,3	1 231,6	1 254,6	1 301,8	1 366,9	1 436,3	1 510,2	1 589,0	1 673,1	1 762,8
LV003 Kurzeme Region	1 794,9	1 697,1	1 710,5	1 758,8	1 795,7	1 869,4	1 973,7	2 085,6	2 205,7	2 334,8	2 473,8	2 623,9
LV009 Zemgale Region	1 460,4	1 386,3	1 400,0	1 443,4	1 471,2	1 528,2	1 630,5	1 741,6	1 862,3	1 993,5	2 136,2	2 291,5
LV005 Latgale Region	1 309,9	1 249,9	1 256,9	1 287,5	1 313,1	1 365,8	1 445,3	1 531,2	1 624,2	1 725,0	1 834,4	1 953,5
Value added total Lithuania incl.	23 893,2	23 843,1	24 322,2	25 234,8	26 097,6	27 247,5	30 367,5	33 874,9	37 821,6	42 266,4	47 276,9	52 930,1
LT001 Alytus County	2 494,0	2 480,6	2 525,9	2 608,6	2 694,1	2 790,1	3 045,8	3 325,6	3 631,8	3 967,0	4 334,1	4 736,2
LT002 Kaunas County	4 302,3	4 281,2	4 371,3	4 523,9	4 682,1	4 910,5	5 534,3	6 241,9	7 045,1	7 957,5	8 994,9	10 175,3
LT003 Klaipėda County	2 509,8	2 502,3	2 556,5	2 646,6	2 740,1	2 875,2	3 243,6	3 660,7	4 133,0	4 668,1	5 274,5	5 962,0
LT004 Marijampolė County	709,9	705,0	717,4	743,4	766,6	794,4	868,7	950,2	1 039,6	1 137,7	1 245,5	1 363,8
LT005 Panevėžys County	1 318,0	1 312,4	1 332,9	1 379,8	1 420,8	1 473,2	1 613,1	1 766,8	1 935,6	2 121,1	2 325,0	2 549,2
LT006 Šiauliai County	1 648,6	1 645,1	1 672,4	1 732,0	1 784,7	1 848,1	2 017,1	2 202,0	2 404,5	2 626,3	2 869,3	3 135,6
LT007 Tauragė County	379,9	378,8	384,4	397,6	409,3	424,0	463,5	506,8	554,3	606,5	663,8	726,8
LT008 Telšiai County	934,5	927,1	941,2	974,4	1 002,8	1 039,0	1 135,5	1 241,4	1 357,5	1 484,9	1 624,7	1 778,3
LT009 Utena County	926,6	920,7	934,6	967,6	995,3	1 030,9	1 125,6	1 229,7	1 343,9	1 469,5	1 607,5	1 759,3
LT00A Vilnius County	8 669,5	8 690,0	8 885,7	9 260,9	9 601,9	10 062,1	11 320,3	12 750,0	14 376,3	16 227,7	18 337,5	20 43,7

1.1.9 International trade

International trade is the exchange of goods and services between countries and in most countries it represents a significant share of GDP. In connection with RB project it is important to demonstrate international trade in north – south direction indicating most important linkages among countries that to some extent may use services provided by RB.

Table below describes flows and linkages of international trade among those countries.

As it can be noticed from table below:

(1) Although international trade data between Russia and Germany is indicated as a total value, it cannot be used for further appraisals since most of the exports and imports are east – west oriented. What may be useful for RB project in a long – term is the international trade between Germany and Sankt-Petersburg region which is located in north-west part of Russia and accounts 5,3% of Russia's total GDP (Population (~6,2 M) of Sankt-Petersburg region represent 4,4% of total population);

(2) The value of international trade among Baltic States and Poland in 2008 has been only 12.2 B EUR. In comparison trade amount between Germany and Baltic States has reached 7,5 B EUR, but trade amount between Finland and Germany totalled 15,3 B EUR.

Table 32 - A.32 International trade

Year 2008		TOTAL FIGURES											
		Imports M, EUR											
Exports, M, EUR	Country	Finland	Estonia	Latvia	Lithuania	Poland	Germany	Russia	Austria	Hungary	Czech Rep.	Ukraine	Belarus
	Finland		1 438	471	442	2 115	6 560	7 618	420	352	351	628	129
	Estonia	1 380		762	613	160	429	880	38	17	46	141	54
	Latvia	195	885		1 053	236	510	629	27	20	40	92	139
	Lithuania	220	918	1 766		929	1 151	2 582	48	53	116	523	723
	Poland	1 074	497	769	2 112								
	Germany	8 787	1 456	1 397	2 505			32 212					
	Russia	10 174	832	1 140	6 330		37 087						
	Austria	562	85	183	186								
	Hungary	383	71	124	175								
	Czech Rep.	629	136	161	315								
	Ukraine	65	117	100	295								
	Belarus	157	318	356	361								

Data source: National Statistical Offices

Table below indicates main commodity flows among countries along RB route.

Table 33 - A.33 Main commodity flows ¹²

O-D	Commodity	Thousand metric tons (Year 2008)
Finland - Germany	Paper	2 549
Latvia - Finland	Wood products	1 257
Finland - Poland	Mineral fuels and Oils	1 149
Finland - Germany	Wood products	1 084
Lithuania - Latvia	Mineral fuels and Oils	825
Lithuania - Estonia	Mineral fuels and Oils	599
Lithuania - Finland	Wood products	411
Finland - Poland	Paper	404
Germany - Finland	Iron and steel	404
Finland - Germany	Mineral fuels and Oils	347
Latvia - Germany	Wood products	325
Poland - Lithuania	Food	305

Data source: National Statistical Offices

1.1.10 Motorisation rate

Eurostat provides motorisation data only up to year 2006 but table below contains estimation for year 2010 that is based on data gathered either from local statistical bureaus or state agencies responsible for vehicle registration.

Table 34 - A.34 Existing level of motorisation

Country	2000	2001	2002	2003	2004	2005	2006	2010 est.	Correlation with GDP per capita
Estonia	339	299	295	321	350	367	413	407	0,89
Finland	412	416	422	436	448	462	475	548	0,90
Lithuania	336	326	341	365	384	428	470	515	0,99
Latvia	236	250	266	280	297	324	360	373	0,98
Poland	261	275	289	294	314	323	351	383 ¹³	0,94
EU27 countries	422	431	438	443	446	457	466	n/a	0,89

Data source: Eurostat, for 2010 National Statistical Offices

Usually the level of motorisation (number of passenger cars per 1000 inhabitants) is forecasted by applying a regression approach, which usually links motorisation with GDP per capita. As it can be noticed from table correlation level is very high.

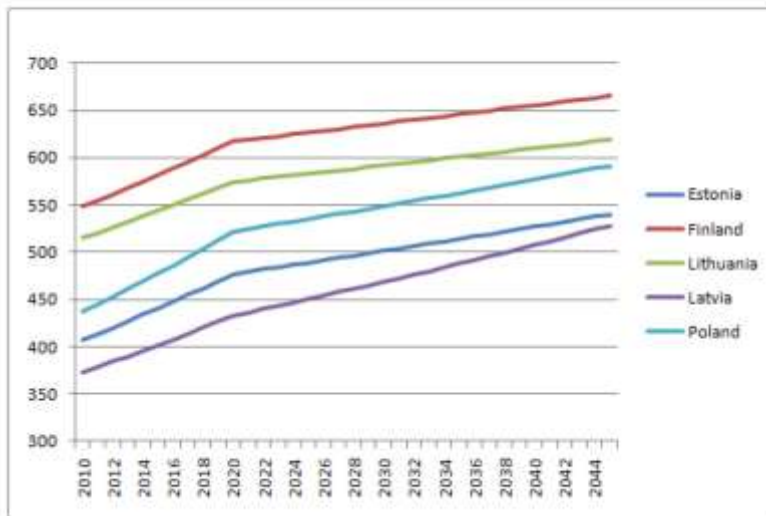
¹² It should be noticed that data (in terms of metric tons) only for Finland and Germany is obtained from reliable sources. For other countries data has been obtained with an assumption that commodity prices are similar in all countries.

¹³ Year 2007

Table 35 - A.35 Average annual GDP per capita growth rates for the forecast horizon

Country	2010 - 2020	2020 - forward
Finland	1,6	0,5
Estonia	1,2	0,3
Latvia	1,1	0,3
Lithuania	1,5	0,8
Poland	1,8	0,5

Figure 36 - A.36 Forecast of motorisation level (passenger cars per 1000 inhabitants)



Appendix B – Analysis of Supply of Transport Services

1.2 Overview

This section discusses the supply of transport in relation to the existing level of service for each mode of transport on the corridor. This section presents an overview of the supply of current transport services for both freight and passenger traffic. The section also presents an indication of current volumes in order to put these services into context.

1.3 Passenger Services

Section 1.3.1 outlines a number of Passenger Metrics which have been established to enable the existing supply of transport services for the various modes to be scored in relation to quality, service and price, thereby providing a simple framework for comparing existing transport service provision on the corridor.

The report moves on to discuss the existing Rail, Coach, Road and Air transport services within each of the Baltic States and for key cross border movements, including an assessment of quality against the Passenger Metrics framework.

1.3.1 Definition of Passenger Metrics

For each transport alternative, quality, service and pricing metrics have been applied to the identified key journeys. This section gives details of the approach taken to evaluate the transport services for each of these modes.

The assessment has been quantitative where possible, but each metric has also been related to a five point scoring system to permit comparison between modes and journeys and for ease of presentation in the final summary table. The scoring system is as shown in the following, with a detailed explanation of the methods applied following in this section.

Table 36 - B.36 - Passenger Metric Scale

Excellent	5
Good	4
Fair	3
Poor	2
Very Poor	1

Quality

The quality of a service has been related to the quality of the travelling environment, whether travel is by private car, rail, coach, air or sea and the quality of the infrastructure supporting the journey (e.g. rail stations, service stations). The scoring for this metric is qualitative and averaged from the scores of two elements: comfort and facilities:

Table 37 - B.37 - Scoring of Comfort

Score		Example specification (Rail, Coach, Air, Sea)	Example specification (Car)
Excellent	5	Modern fleet, with high quality waiting facilities at the stations	Car travel on well-maintained, TEN-T highway routes.
Good	4	Modern fleet,	Car travel on other highway routes.
Fair	3	Older fleet, but well maintained.	
Poor	2	Older fleet, requiring maintenance, or with some overcrowding.	
Very Poor	1	Older fleet, requiring maintenance and with significant overcrowding.	

Table 38 - B.38 - Scoring of Facilities

Score		Example specification (Rail, Coach, Air, Sea)	Example specification (Car)
Excellent	5	Modern fleet with onboard amenities.	
Good	4	Modern fleet without amenities.	Car travel on main routes with good service station facilities.
Fair	3	Older fleet, but well maintained.	Car travel on other highway routes with less service station facilities.
Poor	2	Older fleet, requiring maintenance, or with some overcrowding.	
Very Poor	1	Older fleet, requiring maintenance and with significant overcrowding.	

Service

The service provision has been related to the frequency, reliability and speed of the journey, whether travel is by private car, rail, coach, air or sea. The scoring for this metric is principally quantitative and averaged from the scores of the three elements.

Table 39 - B.39 Scoring of Frequency

Score		Example specification (Rail, Coach, Air, Sea)	Example specification (Car)
Excellent	5	Half-hourly service or better throughout the day	Assume car travel can be made at any time.
Good	4	Half-hourly service or better in peak times, hourly rest of day. Service extends outside working hours.	
Fair	3	Hourly service or better in peak times.	
Poor	2	At least five services per day.	
Very Poor	1	Less than five services per day.	

Table 40 - B.40 - Scoring of Reliability

Score		Example specification (Rail, Coach, Air, Sea)	Example specification (Car)
Excellent	5	More than 90% of services on time (within 5 minutes).	No congestion on route.
Good	4	More than 70% of services on time.	Some congestion on route.
Fair	3	More than 50% of services on time.	Significant congestion on some sections of route.
Poor	2	More than 30% of services on time.	Congestion, on large sections of route.
Very Poor	1	Less than 30% of services on time.	Route heavily congested.

Table 41 - B.41 - Scoring of Speed

Score		Example specification (Rail, Coach, Air, Sea)	Example specification (Car)
Excellent	5		Average journey speed > 150kph
Good	4		Average journey speed > 120kph
Fair	3		Average journey speed > 90kph
Poor	2		Average journey speed > 60kph
Very Poor	1		Average journey speed < 60kph

For air travel an assumed 2 hour processing time (for check-in, security, baggage collection etc has been added to each journey time).

Pricing

The pricing provision has been related to the fare costs for public transport, with an assumption that the cost of car journeys is central within the range of prices.

Table 42 - B.42 - Scoring of Pricing

Score		Example specification (Rail, Coach, Air, Sea)	Example specification (Car)
Excellent	5	Cost less than €2 per 100 km	
Good	4	Cost greater than €2 per 100 km	
Fair	3	Cost greater than €5 per 100 km	Assumed relative cost of car travel.
Poor	2	Cost greater than €10 per 100 km	
Very Poor	1	Cost greater than €20 per 100 km	

Mode Share

A metric has also produced based upon the observed / estimated mode share of the service in the base year, 2009. The scoring system is retained as a 1 -5 numerical scale; however the descriptions have been changed.

Table 43 - B.43 - Scoring of Mode Share

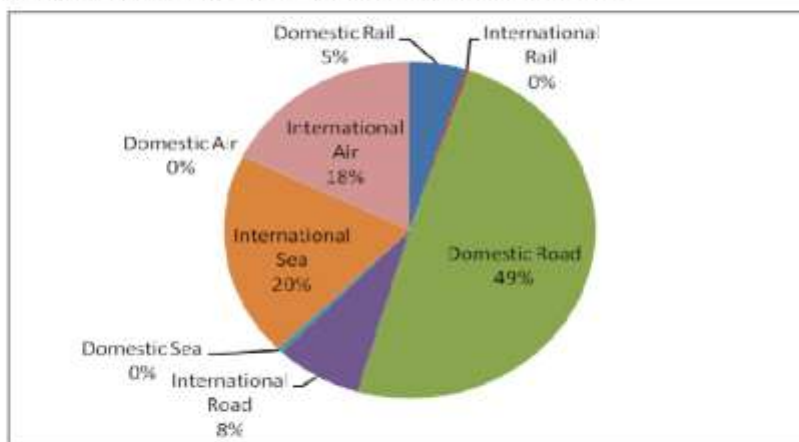
Score		Example specification (Rail, Coach, Air, Sea)
Very High	5	> 50%
High	4	> 25%
Moderate	3	> 10%
Low	2	> 5%
Very Low	1	< 5%

1.3.2 Estonia

Current Modal Split – Passenger Traffic

In the North-South corridor over half of current passenger kms are carried out by road transport (car or coach). Rail transport makes up only a very small proportion of current passenger traffic. For international traffic sea (to Finland and Sweden) and air make up the majority of international transport, road traffic makes up 17% of current international journeys and rail makes up less than 1% as there are currently no rail services across the Latvian border. Road transport makes up 90% of current domestic traffic, with rail making up 9%.

Figure 37 - B.37 - Current Modal Split of Passenger Traffic, % of passenger kms, 2009

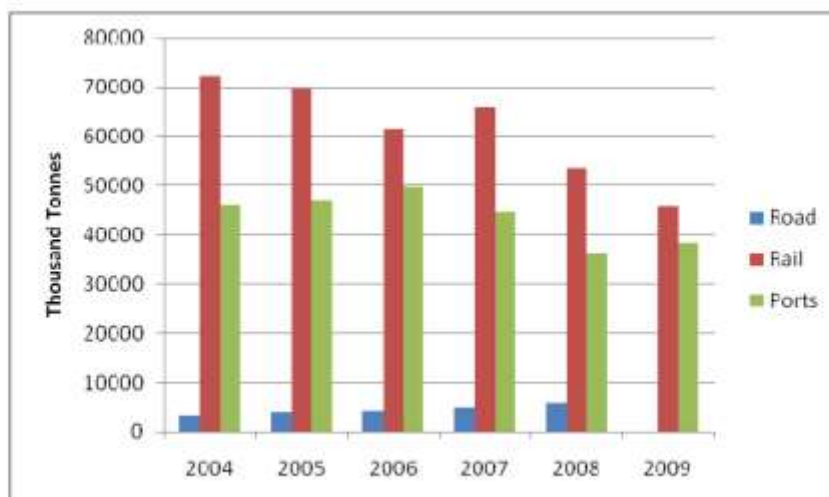


Note: Tallinn – Tartu air service only introduced in early 2011. Data shown is for model base year of 2009 therefore air share of internal trips in corridor in 2009 shown as zero.

Current Modal Split – Freight Traffic

The majority of freight to/from Estonia is carried by either rail or sea. The graph below shows the modal split of freight within Estonia for goods carried. In 2008, the model base year, 58% of goods to/from and within the country were carried by rail, 38% by sea and 6% by road. Taken from Statistics Estonia. The rail trend over the last 3 years has been downwards, 2007-68m, 2008-53m, 2009-46m. Of the latter 39m is made up of petroleum and oil shale movement.

Figure 38 - B.38 - Current Modal Split of Freight Traffic



It can be seen that from 2007 to 2009 a major decline in both rail and sea freight traffic has been seen. Eesti Raudtee have, however, stated that rail freight volumes have increased substantially in 2010 compared to 2009 (the first eight months show a 15.5% increase on the same period last year) indicating that volumes are returning to rail.

Routes which travel in a North – South direction to/from Estonia with an annual tonnage of over 15,000 tonnes per annum have been considered as routes which may be viable for Rail Baltica as this equates to an approximately fortnightly service for non bulk traffics. Routes with lower volumes may provide some traffic; however, they will not form the core service for Rail Baltica.

In terms of traffic types relevant cargo has been taken as either dry bulk, general cargo or non bulk traffics such as containers, ro ro or food products.

The following Baltic freight movements have been considered as part of this study:

1. Lõuna-Eesti to Põhja-Eesti and Kesk-Eesti and vice versa
2. Riga City and Region, Zemgale and Vidzeme to Põhja-Eesti, Kesk-Eesti and Lõuna-Eesti and vice versa
3. All Lithuania regions to Põhja-Eesti, Kesk-Eesti and Lõuna-Eesti

These movements are deemed to be the only movements likely to have sufficient length of haul and proximity to the proposed line to be of relevance to the project. More information on how Baltics traffic has been split and the levels of accuracy and detail available can be found in the modelling report.

The table below shows the current volumes on each of the routes for bulk / general cargo and non bulk traffics and the modal split of these volumes.

Table 44 - B.44 - 2008 Tonnages for Major Estonian North – South Freight Routes

Origin	Destination	Non Bulk	Dry Bulk / General Cargo	Modal Split Dry Bulk / General Cargo			Modal Split Non Bulk		
		Current Volumes (000 Tonnes pa)	Current Volumes (000 Tonnes pa)	Road	Rail	Sea	Road	Rail	Sea
Estonia (N)	Estonia	815	1318	86%	14%	0%	94%	6%	0%
Estonia (S)	Estonia	668	1101	83%	17%	0%	93%	7%	0%
Estonia	Finland	328	3177	5%	1%	95%	66%	1%	33%
Estonia	Germany	308	738	8%	0%	92%	19%	0%	81%
Estonia	Latvia	177	371	78%	15%	7%	90%	8%	2%
Estonia	Lithuania	83	92	100%	0%	0%	78%	0%	22%
Estonia	Russia – Gulf of Finland	202	323	100%	0%	0%	100%	0%	0%
Estonia	Poland	62	0	0%	0%	0%	100%	0%	0%
Finland	Estonia	316	2361	9%	0%	91%	54%	0%	46%
Germany	Estonia	608	314	33%	0%	67%	14%	0%	86%
Latvia	Estonia	62	439	48%	36%	17%	37%	63%	0%
Lithuania	Estonia	55	67	99%	0%	1%	91%	0%	9%
Russia – Gulf of Finland	Estonia	120	189	100%	0%	0%	100%	0%	0%
Poland	Estonia	18	24	75%	0%	25%	66%	0%	34%

Sources: Eurostat for road and sea freight data, rail freight data from Eesti Raudtee Annual Report 2008, detailed information provided by the Lithuanian government and detailed rail freight data provided by LDZ

The key flows which Rail Baltica may compete with are:

- Germany – Estonia and Estonia - Germany: predominantly sea freight currently, both bulk and non bulk traffics
- Estonia – Latvia and Latvia – Estonia: primarily road freight currently, majority bulk traffic

Some competition may also be possible for longer internal flows and some flows to/from Finland if these are with companies based in the south of the country.

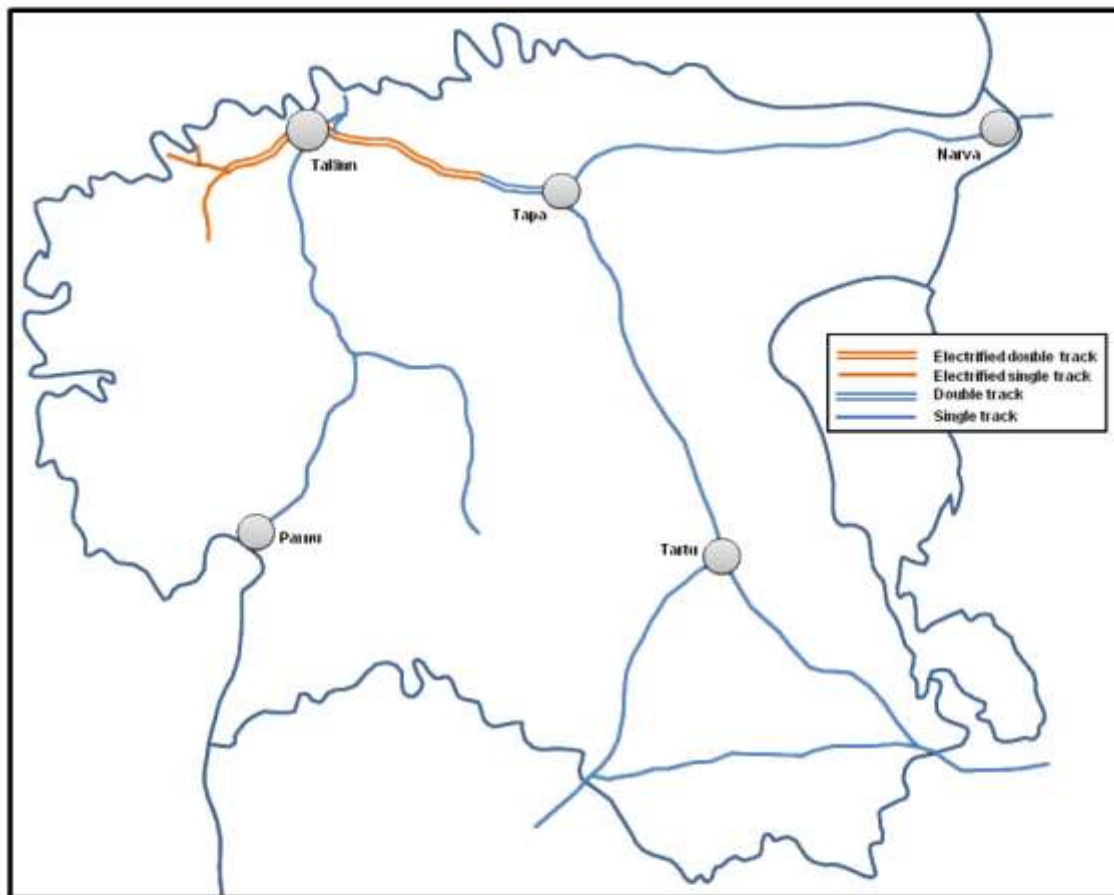
Rail Network

The Estonian railway network is principally a single track network linking the capital city, Tallinn, with the other major towns of Narva, Tartu, Parnu and Viljandi. In the vicinity of Tallinn the network is double-tracked and electrified. Additional sections of network link Tartu to the border of Latvia and the Russian Federation, with a further section of track linking up these two borders. It should be noted, however, that in 2009 there were no international rail services across the Latvian Border.

Although there are rail services on the key corridors from Tallinn to Parnu and Tallinn to Tartu these are infrequent and suffer from slow average journey speeds, reducing the competitiveness of rail compared to coach and car. The state of the rolling stock can at best be described as satisfactory but does vary significantly depending upon the route. Some routes operate different classes of travel allowing passengers to choose their desired quality. In overall terms punctuality and safety are good.

The following Figure represents the Estonian rail network in 2009.

Figure 39 - B.39 - Estonian Rail Network



Passenger Rail Development Plans

In January 2009 a positive funding decision from the European Committee for the TEN-T project "Reconstruction of the cross-border section of Tartu-Vaiga railway line" was received. The implementation deadline of the project is 31 December 2010.

Freight Rail Development Plans

Within the Estonian Transport Development Plan a variety of measures are detailed to increase freight traffic and diversify the assortment of goods passing through Estonia in transit and the geography of goods transportation. A 71% growth in container transport by 2013 is noted as an especially important objective.

To achieve this objective the plan states that the legislative environment will be simplified and supervision over the competition situation will be improved and that cargo handling at the border will be reduced, along with acceleration of visa procedures (compared to Finland who is the main competitor in the transport sector).

Passenger Rail Characteristics

For the purposes of the study, the following key passenger movements have been identified: Tallinn – Tartu and Tallinn – Parnu.

Table 45 - B.45 - Estonian Rail Quality Metrics – Passengers, Detailed Information

	Line description	Approximate Distance (Km)	Weekday Service Frequency (trains per day)	2-way Service Volume passengers per day	Average Journey Time (hh:mm)	Average Journey Speed (kph)	Economy Single Fare (Euros)
Tallinn – Tartu	Electrified from Tallinn – Aegviidu, double-track from Tallinn - Tapa	190	6	299	02:44	70	6.71
Tartu – Tallinn			6		02:34	74	
Tallinn – Parnu	Single track	130	2	56	02:43	48	5.43
Parnu - Tallinn			2		02:39	49	

Table 46 - B.46- Estonian Rail Quality Metrics – Passengers, Routing Scoring

	Quality		Service			Mode Share	Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)		
E S T O N I A							
Tallinn-Tartu	Average	Average	6 trains per day (weekdays)	Average	70	6%	3.53
Score	3	3	2	3	2	2	4
Tallinn-Parnu	Average	Average	2 trains per day (weekdays)	Average	49	2%	4.18
Score	3	3	1	3	1	1	4

Rail Freight Characteristics

There are 45 rail freight stations listed within Estonian Railways tariff and infrastructure information. According to the Estonian Investment and Trade Agency the rail freight market in 2008 was divided as follows:

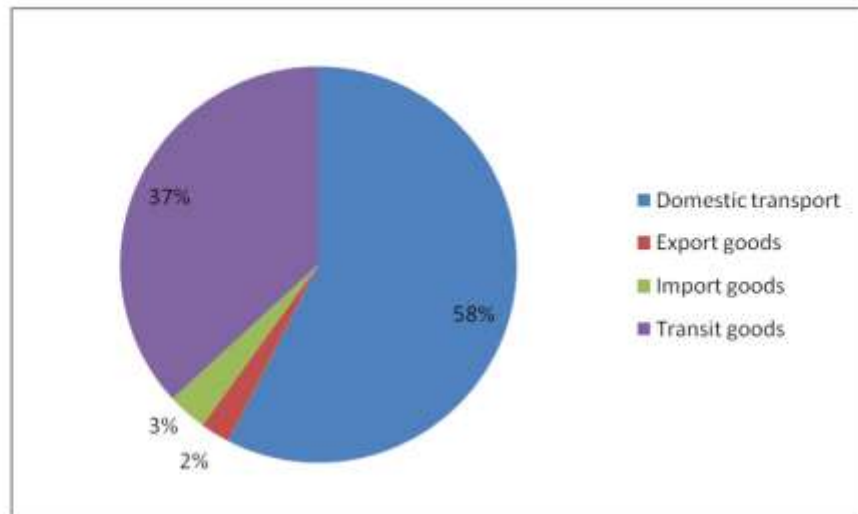
- Estonian Railway 51% (Eesti Raudtee),
- Westgate Transport OÜ 31%,
- E.R.S. AS 13%,
- Spacecom AS 5%.

Westgate, E.R.S. and Spacecom appear to only offer liquid bulk services and therefore are of less interest with regards to Rail Baltica. Eesti Raudtee provide services for freight tracking by rail.

However, following a dispute concerning business operations Estonia Railways have withdrawn the right to use the country's rail infrastructure from Spacecom AS and Westgate Transport OÜ. Their volumes have been taken over by AS E.R.S. There are currently two main Railways Undertakings operating on the TEN-T network (AS ECR Cargo and AS E.R.S.). In the years to come it is very likely that additional operators will apply for licences to run freight trains, setting up in competition with the existing companies. Some of these operators will have bases in other countries.

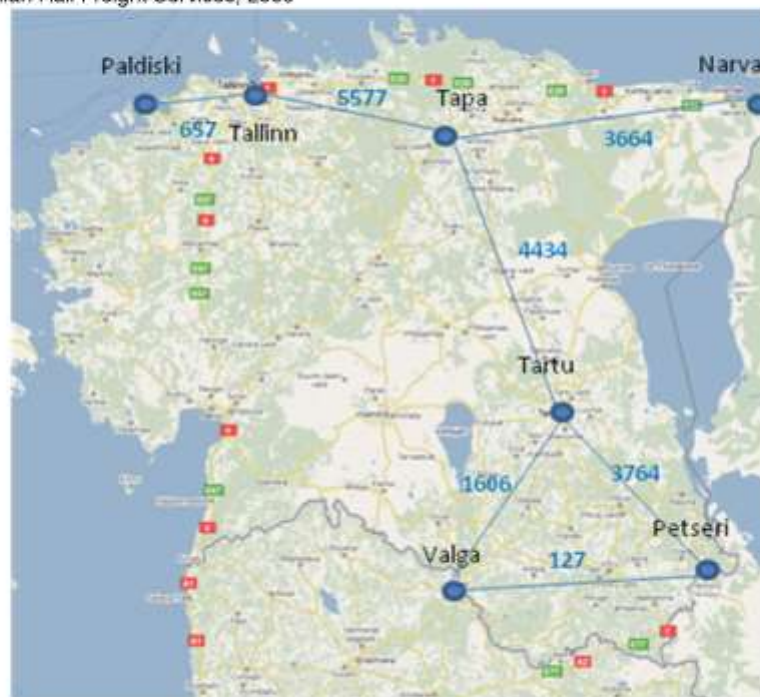
Over half of current rail freight traffic is domestic transport (primarily oil shale, petroleum products and building materials), with the majority of the remainder being transit traffic. The key markets for export goods are building materials, chemicals and food, for imports chemical products, metal products and wood and cork and for transit food, fuel, ores and chemicals.

Figure 40 - B.40 - Estonian Rail Freight Traffic in 2008, Proportional Split of Tonnes



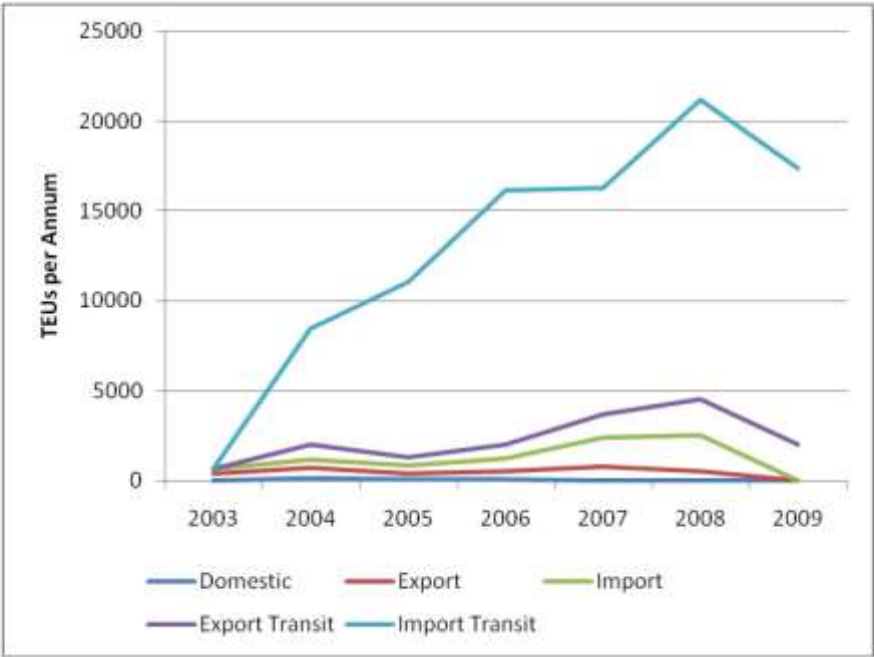
In 2009 rail freight services ran as can be seen on the map below. The majority of the services travelled to Russia via either Petseri or Narva, around 1600 services travelled in Latvia via Valga (a decrease of 36% on the previous year and just over half of pre-recession volumes).

Figure 41 - B.41- Estonian Rail Freight Services, 2009



Rail container transport is currently dominated by imported transit containers. Volumes of all types of container traffic increasing sharply from 2003 until 2008 followed by a dip in 2009.

Figure 42 - B.42 - Estonian Rail Freight Container Volumes, 2003 - 2009



Intermodal Facilities

There are 6 rail stations in Estonia which are capable of handling containers:

- Sillamäe
- Ülemiste
- Rapla
- Paldiski
- Muuga
- Maardu

These can be seen on the map below. Four of the terminals are related to Tallinn and Tallinn port. The remaining two include one at the border with Russia and one on the north-south line through the country heading to Pärnu.

None of these terminals would appear to be classed as official intermodal terminals. Providing rail access to the Industrial Park of Muuga Harbour is part of the ports long term development plans.



Rail Freight Prices

For rail freight the tariffs for carriage of cargo are determined by cargo train operators. These tariffs are not regulated, except general restrictions arising from the competition law (prohibition to charge excessive prices, discriminate or cross-subsidise). The cargo operators calculate the price for carriage of particular shipment on basis of type of cargo, distance, volume etc. The tariff policy for EVR Cargo, the largest Estonian freight operator, is publicly available.

Simplified tariffs are as follows:

Table 47 - B.47- Rail Freight Prices in Estonia: Large-capacity container (except refrigerated and tank-container) – Price in Euros

Distance KM	Laden				Empty			
	20'	30'	40'	45'	20'	30'	40'	45'
0 - 50	37	49	74	107	18	24	37	54
51 - 100	69	96	137	199	34	48	69	99
101 - 200	137	192	274	398	69	96	137	199
201 - 300	208	288	415	602	104	144	208	301
301 - 400	274	384	548	795	137	192	274	398
401 - 500	343	480	685	994	171	240	343	497

Table 48 - B.48- Rail Freight Prices in Estonia: Bulk Traffic – Price in Euros

Distance km	Hoppers, Gondolas, Platforms	Covered Wagons, Car Carriers and Tanks	Machinery, equipment and spare parts, Industrial and Cultural Goods and Mixed consignments	Refrigerated Wagons	Tobacco, Explosives, Arms and Ammunition	Especially dangerous goods
Up to 110	4	5	6	7	8	12
151-160	6	7	8	9	11	17
201-210	7	9	10	12	15	22
251-260	9	11	12	14	18	27
301-310	11	13	15	17	21	32
351-360	12	15	17	20	24	36
401-410	14	16	19	22	28	41
451-460	15	18	21	24	30	46
491-500	16	20	23	26	33	49

It should be noted that tariffs are not provided for journeys over 500km (which form a substantial proportion of proposed Rail Baltica traffic).

EVR Cargo has a separate container traffic division who were asked to quote for two typical north-south rail freight journeys. They provided the following quotes:

1. Tallinn Muuga - St Peterburg Avtovo FOR/FOR
20' 350USD
40' 540USD

2. Tallinn Muuga - Riga Krasta (import) FOR/FOR
20' 300USD
40' 390USD

These quotes are substantially cheaper than the publically available tariffs suggest (15% cheaper for a 20' container to Riga) and the pricing structure between 20' and 40' containers is different – within the tariffs rates for a 40' container are exactly double those for a 20', whereas the prices quoted have an increase of between 30 and 50% for a 40' over a 20'.

The table below presents the standard tariff prices per km compared to the quotes received. The journey lengths have been selected to represent likely journeys: the import/export flow is the distance from Tallinn to Riga.

Table 49 - B.49- Price in Euros: Quoted Rail Freight Rate Compared to Published Tariff for an Average Lorry Load

Journey Type	Standard Tariff		Quoted Rate	
	Domestic	Import / Export	Tallinn - Riga	Tallinn – St Petersburg
Distance Assumed	91km	351km	351km	323km
Bulk (hopper, gondola, platform)	0.81	0.69		
40' Container	1.5	1.56	0.86	1.3
20' Container	0.75	0.78	0.66	0.84

Road Network

Estonia has a number of E-Roads linking cities with neighbouring countries. Of particular interest to the study are the E67 linking Tallinn with Pärnu and the Latvian border, the E263 linking Tallinn with Valga on the Latvian border via Tartu. Other key routes include the E20 east-west route from Tallinn through to Narva on the border of the Russian Federation. In general, the quality of the roads can be considered good. The busiest highways (for example Tallinn-Tartu) are considered to be over capacity and for this reason a little unsafe. Some of the busiest highways have received criticism due to the low number of driving lanes and what are arguably low speed limits compared to elsewhere in Europe.

The following Figure displays all the routes classified as E-Roads within Estonia together with the other main highway routes.

Figure 43 - B.43 - E-Roads and Other Main Highways in Estonia



New Highway Development Plans

The following planned highway schemes are relevant to the Rail Baltica project.

- Reconstruction of Tallinn – Tartu road. E263 Tallinn-Tartu-Võru-Luhamaa road (hereafter Tartu road) is the longest road that crosses Estonia diagonally being a connecting link between Northern area and South-East area of the state. The total length of Tartu road is 288.5 km (17.8% of the main road network). This project may have a negative impact on Rail Baltica since it may lead to lower demand for passenger services between Tartu and Tallinn if the road is maintained well;
- Tallinn – Paldiski road (There are regular ferries between Paldiski's harbour and Kapellskar, Sweden/ Hanko, Finland /Lübeck, Germany);
- Consideration is being given in the long term to reconstructing the Via Baltica section Ikla – Tallinn into a 4 lane road, but no specific decisions have been made and implementation years are currently unclear.

Key Routes for Car Passenger Traffic

Table 50 - B.50- Estonian Road Quality Metrics (Cars) – Passengers, Detailed Information

	Highway description	Approximate Distance (Km)	Traffic volume 2-way (AADT)	Average Journey Time (hh:mm)	Average Speed (kph)
Tallinn – Tartu	E-263: dual-carriageway for 29 km out of Tallinn, otherwise single-carriageway	190	3,305	02:40	71
Tallinn – Parnu	E67: dual-carriageway for 14 km out of Tallinn, otherwise single-carriageway	130	2,872	01:55	68

Table 51 - B.51 - Estonian Road Quality Metrics (Cars) – Passengers, Route Scoring

	Quality		Service			Mode Share	Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)		
E S T O N I A							
Tallinn-Tartu	Fair	Fair	Anytime	Fair	71	70%	8.55
Score	3	3	5	3	2	5	3
Tallinn-Parnu	Fair	Fair	Anytime	Fair	68	80%	8.55
Score	3	3	5	3	2	5	3

Coach Network

An extensive network of inter city coach services has developed in Estonia operated by modern coaches with high levels of customer service, particularly on the busier routes such as Tallinn – Tartu and Tallinn – Parnu. Tallinn is linked to Tartu at least every 30 minutes and approximately every hour to Parnu. All in all, the perceived quality of coach transport is different depending on the destinations but on average can be estimated as good.

New Coach Development Plans

The coach operators should benefit from the planned enhancements to the road network outlined above for Estonia. This should enable faster journey times to be achieved than currently on key corridors such as Tallinn to Tartu.

Key Routes for Coach Traffic

Table 52 - B.52 - Estonian Road Quality Metrics (Coaches) – Passengers, Detailed Information

	Approximate Distance (Km)	Service Frequency (coaches per day)	Service Volume (2-way) passengers per day	Average Journey Time (hh:mm)	Economy Single Fare (Euros)
Tallinn – Tartu	190	38	1,119	02:33	9.59
Tallinn – Pärnu	130	12	662	02:02	7.67

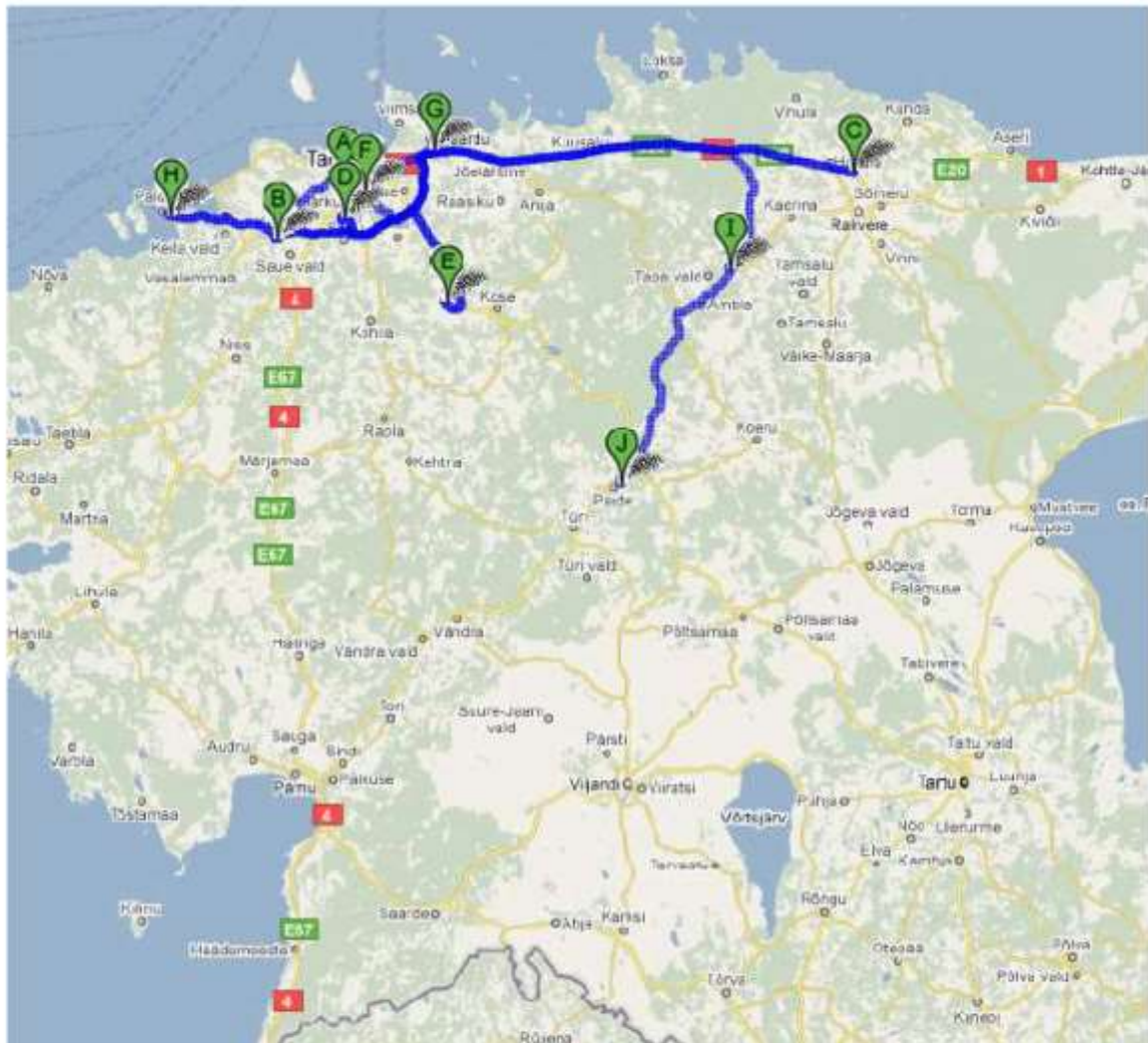
Table 53 - B.53- Estonian Road Quality Metrics (Coaches) – Passengers, Route Scoring

	Quality		Service			Mode Share	Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)		
E S T O N I A							
Tallinn-Tartu	Good	Good	38 coaches per day	Fair	75	24%	5.05
Score	4	4	4	3	2	3	3
Tallinn-Pärnu	Good	Good	12 coaches per day	Fair	64	18%	5.90
Score	4	4	3	3	2	3	3

Current Logistics Facilities

The following Figure shows the location of key Estonian logistics facilities. The major logistics centres are mainly based around Tallinn so there is real merit in providing the most direct route from here to other major European cities. The green line picks up the logistics centres furthest east not only serving Tartu, but also the logistics park at Tapa and may offer the opportunity for interchange for freight to Russia, which would give a geographical advantage over other routes going to Russia but it is the longest route round for goods going to Tallinn and Finland. In addition this would require the provision of additional gauge change facilities outside of Tallinn in order to gain any distance advantage.

Figure 44 - B.44 - Location of Key Estonian Logistics Facilities



Road Freight Charging

The Euro Vignette system has not yet been implemented in Estonia, the Ministry of Economic Affairs and Communications in its web site states:

"Concerning electronic road toll system applications we believe that the implementation specifics are important for us in connection with our carriers abroad, but at the moment we do not see the need to implement the system in Estonia. It is possible that in the future heavy goods vehicles vignette will be implemented. In that case we would be interested in eVignette development".

Road Freight Prices

For road freight traffic quotes were sought from a variety of Eastern European hauliers which provided an average freight fee of between €0.9 and €1.15 per km. It can be seen that the rail freight price is generally lower than this with the exception of the quoted tariff for 40' containers and the quoted rate for 40' containers to St Petersburg.

Air Network

There are a number of airports in Estonia providing commercial civil aviation including international flights these include, Kardia airport, Kuressaare airport, Parnu airport, Lennart Meri Tallinn airport and Tartu-Ulenurme. Tallinn airport is the biggest of these facilities. During the first quarter of 2010 it handled a total of 304,700 passengers, which is 8% less than the same period the previous year. There are a number of commercial internal flights; however, these principally cater for travel from the mainland to the islands to the north of the Gulf of Riga, the two largest of which are Saaremaa and Hiiumaa. Figure below illustrates the principal air routes available from Estonian airports for the Baltic region.

Figure 45 - B.45- Current Air Passenger Network



New Air Development Plans

Tallinn airport was reconstructed during 2006 – 2008. There was an expansion of the passenger terminal and reconstruction of the air traffic area. As a result of the renovation and extension project, approximately 14,000 square metres of usable area was added to the passenger terminal of the airport.

Key Air Passenger Routes

There are no internal flights between Tallinn and Tartu or Tallinn and Parnu. However it is possible to fly from Tallinn and Tartu into the other Baltic States and further into Europe and Russian Federation.

Air Freight

Air Freight Tonnages are very low for both Latvia and Lithuania and within Estonia the majority of air freight volumes are for countries outside of the EU. In addition air freight has very different characteristics to rail freight (generally high value urgent goods) and no single north south route has tonnages in excess of 2,000 tonnes per annum. Based upon this it is considered highly unlikely that Rail Baltica would be in competition with air freight within the 3 countries and air freight is therefore not analysed later on within the model or the report.

Table 54 - B.54 - Air Freight Tonnages to/from the Baltic States, 2007 - 2009

		2007	2008	2009
Estonia	Total transport	22,634	41,744	20,526
	National transport	0	0	0
	International transport Inter EU	5,906	7,104	4,587
	International transport Extra EU	16,728	34,640	15,939
Latvia	Total transport	7,197	6,884	8,646
	National transport	0	0	0
	International transport Inter EU	4,652	4,765	5,917
	International transport Extra EU	2,545	2,119	2,729
Lithuania	Total transport	12,804	9,056	6,465
	National transport	0	8	0
	International transport Inter EU	6,858	6,500	5,467
	International transport Extra EU	5,946	2,548	998

Sea Traffic

Passenger transport by sea is at very low levels for origins and destinations relevant to Rail Baltica therefore this has not been taken into account within this report or the passenger demand modelling. There are no north – south services in the corridor except very long distance services from Germany – Estonia which would be expected to be used for leisure purposes.

The main port in Estonia is the port of Tallinn which accounted for 82% of sea freight tonnage in 2009 (31.6 million tonnes). SILPORT (Port of Sillamäe) is very close to the Russian border (25km) and has expanded since opening in 2006. The port handles oil products, chemicals, general cargo (timber, scrap, and metal constructions) gravel, shale oil, cars and ro-ro cargo. Other ports include Kunda, Miduranna, Pärnu and Vene Balti, however, these ports do not have annual tonnages which would make them of relevance to this project.

The graphs below show the main non oil traffic through Tallinn. Container volumes peaked at around 180,000 TEUs per annum prior to the recession and vehicle movements have continued to increase hitting around 1,100,000 units per annum in 2009. Other bulk movements have been severely hit by the recession with a drop to less than half of pre-recession volumes seen. The main movements are fertilizers, coal and metals. Liquid bulk volumes average around 22 million tonnes per annum.

The majority of transport through the port is transit traffic (83%) with imports and exports relatively evenly balanced at around 2.5 million tonnes each in 2009.

Figure 46 - B.46 - Sea Freight Transport in Estonia, Container and Vehicle Volumes through Tallinn, 2001 - 2009

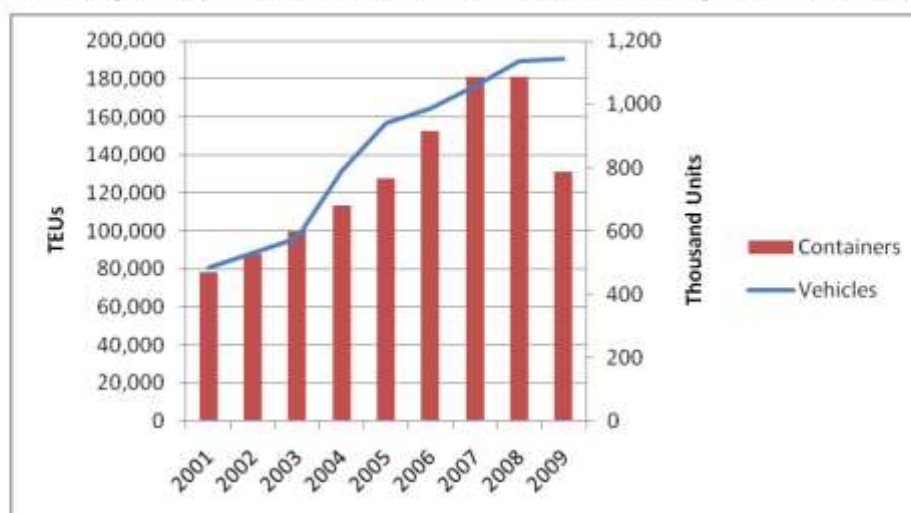
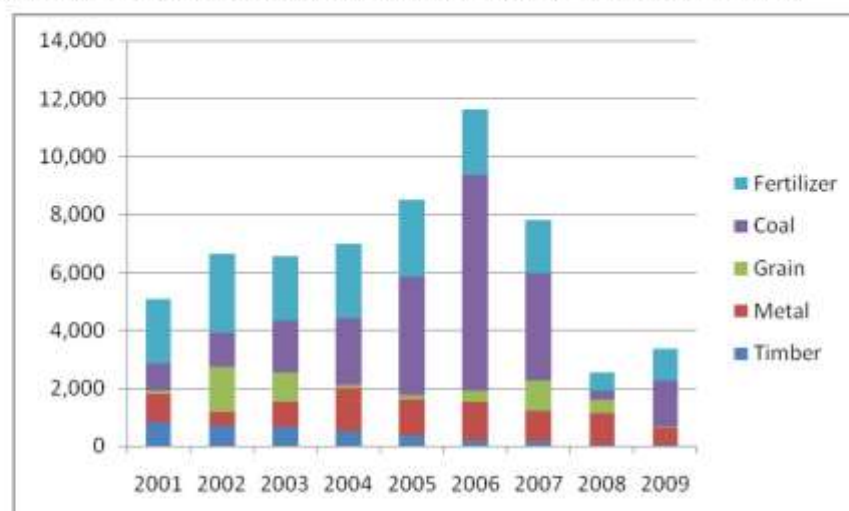


Figure 47 - B.47 - Sea Freight Transport in Estonia Other Non Oil Volumes through Tallinn, 2001 - 2009



The port of Tallinn is split into 5 harbours.

	Old City Harbour	Muuga Harbour	Paljassaare Harbour	Paldiski South Harbour	Saaremaa Harbour
Harbour territory (ha)	52,9	524,2	43,6	141,1	13,6
No. of quays	23	28	11	10	3
Max. depth (m)	10,7	18,0	9,0	13,5	10,0

Muuga Harbour is specialized in handling transit origin goods. It is the main cargo harbour for Port of Tallinn and locates ca 17 km east of Tallinn. The cargo volume handled accounts for around 80% of the total cargo volume of Port of Tallinn and approximately 90% of the transit cargo volume passing through Estonia. Nearly 3/4 of cargo loaded in Muuga Harbour includes crude oil and oil products, but the harbour also serves dry bulk (mostly fertilizers, grain and coal) and other types of cargo. Muuga Harbour is among the deepest (up to 18 m) and most modern port in the Baltic Sea region.

Muuga Harbour has 151 000 m² of warehousing and the following terminals:

- 6 liquid bulk terminals
- 2 multipurpose terminals (one of them with a reefer complex)
- container terminal and ro-ro terminal
- dry bulk terminal
- grain terminal
- steel terminal
- coal terminal

An extensive free zone in Muuga Harbour grants more flexible customs procedures for companies rendering transit and distribution services. Simplified customs procedures, easy transfer of ownership rights and value-added operations allowed in the zone are designed to foster the development of distribution centres. No import VAT is applied to goods imported temporarily to be processed and exported in due time from Estonia.

In terms of land availability for extension, Muuga Harbour possesses the greatest development potential in the whole region.

Paldiski South Harbour is the Port of Tallinn's second cargo harbour, located 45 km west of Tallinn. The core activity of the harbour is focused on the handling of Estonian export and import cargo and transit cargo: mainly ro-ro cargo, scrap metal, timber, peat and oil products. Developing fields of activity include transit of new cars for neighboring markets and pre-sale service.

Current terminals include:

- Passenger terminal
- Ro-ro & general cargo terminal
- Timber terminal
- Metal terminal
- Biodiesel terminal (under construction)
- 2 car terminals

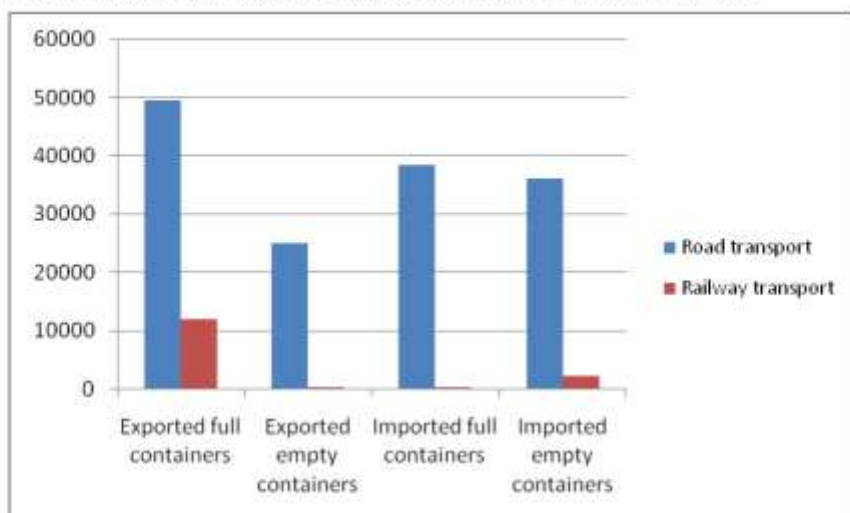
The Old City Harbour is predominantly a passenger harbour. The functions of a traditional cargo port have been gradually moved away from the city centre, and relocated into the other harbours. At present the Old City Harbour processes mainly Ro-Ro cargo carried by passenger liners and Ro-Ro vessels.

The strategic goals of Tallinn Port are stated as:

1. Increasing the handling capacity of containers and developing an attractive port environment that allows significant increase of container transit flows;
2. Increasing the handling capacity of new cars up to 300 000 units per year;
3. Entering into LNG and/or LPG logistics market by creating an environment for construction of gas terminals in the port and at the same time creating preconditions for increasing the energetic independence of the Republic of Estonia;
4. Increasing the competitiveness of the storage services for oil and oil products and if necessary re-profiling from railway terminal-vessel principle to vessel-terminal-vessel principle;
5. Searching for new utilization possibilities and points of origin for maximum use of existing port infrastructure.

The majority of Estonian non-bulk traffic is transported onwards by road. The graph below shows the levels of onward transportation by mode in 2009.

Figure 48 - B.48 - TEUs of Estonian Sea Freight Containers by Onward Mode of Transport in 2009



Sea Freight Prices

For sea freight prices were requested from a variety of lines listed as operating from Tallinn, Riga and Klaipeda ports. Responses for journeys to/from Estonia were as follows:

Shipping Line	Routes of Interest	Type of Traffic	Journey Time	Cost EUR	Frequency of Service
APL	Hamburg - Muuga	40' Container	3-4 days	893	Weekly
	Muuga - St Petersburg	40' Container		closed route	
	Bremerhaven - Muuga	40' Container	3-4 days	785	Weekly
MSC	Muuga - Helsinki	40' Container	4 days	550	Weekly
	Bremerhaven - Muuga	40' Container	8 days	656	Weekly
	Riga - Tallinn	40' Container		closed route	
Team Lines	Muuga - Riga	40' Container		closed route	
	Bremerhaven - Muuga	40' Container	3-4 days	730	2 x Weekly
UAB „Limarko jūrų agentūra“ (K Line European Sea Highway Services GmbH)	Bremerhaven - Paldiski	Ro Ro – 40T articulated lorry		closed route	
	Klaipeda - Paldiski			closed route	
UAB "Tschudi Logistics"	Klaipeda - Muuga	40' Container		closed route	

	Muuga - Helsinki	40' Container	1 day	427	Daily
CMA - CGM	Riga - Muuga	40' Container	2 days	300	Weekly
Unifeeder Container Service	Muuga - Bremerhaven	40' Container		closed route	
Eckerö Line Freightlink	Tallinn - Helsinki	Ro Ro – 40T articulated lorry	2 hours	521	1 – 3 x Weekly
Navirail emailed	Muuga - Helsinki	Ro Ro – 40T articulated lorry	4 hours	180-195	2 – 3 x Daily
Tallink	Tallinn - Helsinki	Ro Ro – 40T articulated lorry	2-4 hours	419 - 755	6 x Daily
Transferrica emailed	Paldiski - Lubeck	Ro Ro – 40T articulated lorry	40 hours	680-800	3 x Weekly
Freightlink	Tallinn - Helsinki	40' Container	2 hours	521	1 – 3 x Weekly

The majority of sea freight services to/from Estonia are through Tallinn (Muuga) with some services through Tallinn (Paldiski). Services are provided to/from Finland (Helsinki), Latvia (Riga) or Germany (Bremerhaven, Lubeck and Hamburg). Operators contacted for services advertised to Lithuania stated that the routes had been closed; some operators had also closed routes to Germany and Latvia.

Rates per km are roughly as follows:

- Estonia to Germany: €0.44 to €0.88 per km, average €0.59
- Latvia to Estonia: €0.7 per km
- Estonia to Finland: €2.67 to €3.36 per km, average €3.03

It can be seen that the sea rates for the longest journeys (to Germany) are generally lower than the rail freight rates, however, rates for shorter journeys such as Tallinn – Riga are higher than the rail freight rates.

Freight Journey Times and Service Frequencies Summary

A comparison of current road and rail freight journey times for key routes to/from Estonia can be seen below:

Table 55 - B.55 - Rail Freight Journey Times and Service Frequencies to/from Estonia

From	To	Road Distance	Rail Distance	Sea	Road	Current Rail
Estonia	Latvia	307	360	2 days	6.3 hours	3 - 4 days
Estonia	Lithuania	570	645		10.1 hours	4 - 5 days
Estonia	Germany	1337	1769	40 hours - 8 days, generally 3 - 4 days	1 day 15 hours	
Estonia	Poland	961	1119		18 hours	9 - 10 days
Estonia	St Petersburg	323	323		3 - 4 hours	
Viljandi	Tallinn	159	159		3 hours	

Road freight times have been taken from route planning software with drivers hours legislation taken into account in calculating the journey times. Sea freight times have been taken from the quotes provided. As rail freight services are not regularly available for the routes shown they have been calculated using formulas of the agreement on the international railway carriage of freight

(SMGS), and therefore these times are somewhat "theoretic". Generally road is the fastest mode currently (with the exception of the express sea freight service to Germany). Currently rail is substantially slower than both sea and road.

The speed limit for HGVs is 50km/h in a built up area and 90km/h elsewhere. EU Drivers Hours legislation applies meaning that a 45 minute break is required every 4.5 hours with a maximum daily driving limit of 9 hours, which can be extended to 10 hours twice a week. For longer journeys multi-manning is possible to increase the hours the vehicle can be driven (although drivers hours rules still apply to each of the drivers). The Estonian Logistics & Freight Forwarding Association (ELEA) states that the rules are enforced very strictly and that sometimes Estonian trucks are forced to take a break on the Latvia – Estonia border because of this.

The majority of current rail freight is liquid mineral fuels travelling to/from Russia (69% for first eight months of 2010). Transit traffic makes up 84% of total rail freight. Container transport for the first eight months of 2010 was 13,616 TEU – up 24% on 2010, three routes are offered by Eesti Raudtee:

- Baltika transit – open since 2003 this is an Estonian, Latvian, Lithuanian, Russian, Kazakh and Uzbek railways joint project providing a regular service to Central Asia. The train operation is based on the three Baltic railways aggregating containers into one single shipment. The train is operated by FIT (Fesco Integrated Transport). The shuttle offers a daily service.
- Moscow Express – started in 2007 this is a regular service to Moscow from Muuga. The train is a joint project between EVR Cargo, Ocean shipping line APL, Estonia and the Russian Logistics MTF forwarders providing a full door to door service for containers. The train leaves twice a week.
- ZUBR – started in 2009 the course of the route is Tallinn - Riga - Minsk - Iljitišovsk / Odessa and back. The possibility of extending the route over the Caucasus, Black Sea and Turkey is currently being investigated. The train offers the option to send containers daily. The train takes four days to travel from Muuga to Iljitišovsk.

E.R.S AS, Spacecom and Westgate Transport provide solely oil and LPG services (which are unlikely to use Rail Baltica).

By sea the following approximate service frequencies are available:

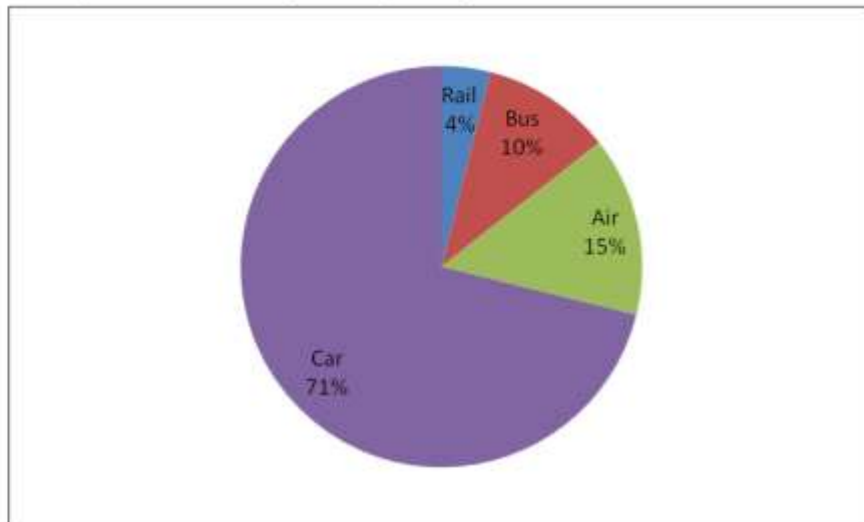
- Hamburg - Muuga Weekly
- Bremerhaven - Muuga 4 x Weekly
- Paldiski - Lubeck 3 x Weekly
- Riga - Muuga Weekly
- Muuga - Helsinki 9 - 10 x daily

1.3.3 Latvia

Current Modal Split – Passenger Traffic

Figure below shows the current modal split of traffic to/from and within Latvia. The majority of current passenger kms are carried out by car with current rail services having a share of 4% (similar to the proportional share in Estonia). Bus traffic has a share 2 and a half times greater than current rail services.

Figure 49 - B.49 - Modal Split of Latvian Passenger Traffic, passenger km, 2008

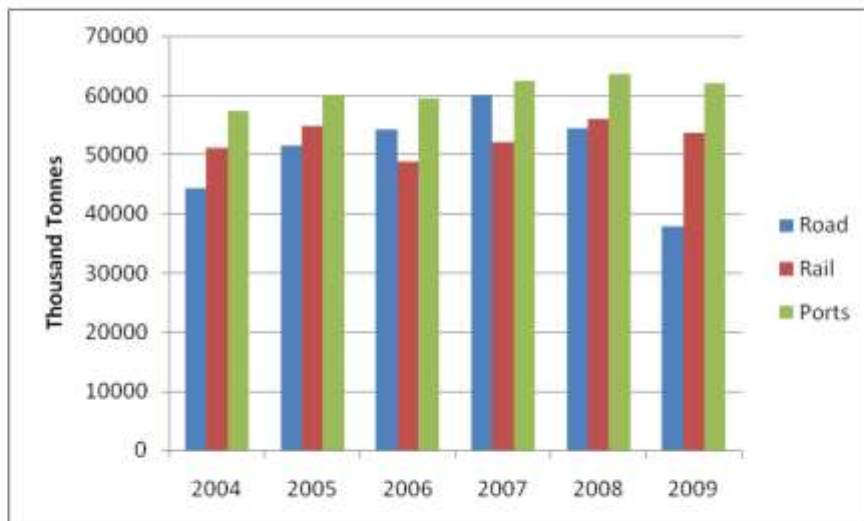


Source: Latvia Statistics Institute for rail, bus and air. Eurostat for car.

Current Modal Split – Freight Traffic

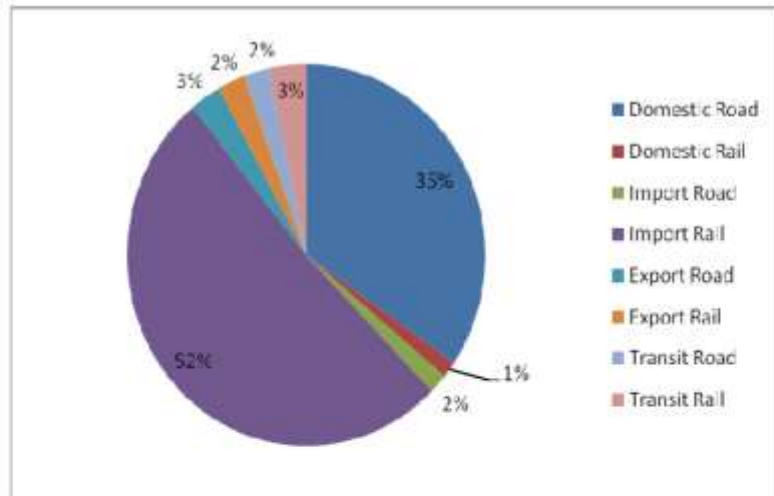
Freight to/from Latvia is split relatively evenly between the 3 modes. The graph below shows the modal split of freight within Estonia for goods carried. In 2008, the model base year, 32% of goods to/from and within the country were carried by rail, 37% by sea and 31% by road. It can be seen that from 2007 to 2009 there has been a major decline in road traffic.

Figure 50 - B.50 - Current Modal Split Latvian Freight Traffic, 2004 - 2009



For land based traffic the graph below shows the proportional split of tonnages for road and rail between domestic, import, export and transit traffic. For domestic traffic road freight takes the majority of tonnage, whereas for import traffic rail freight carries the vast majority of volumes (the majority of this travels to Latvia's ports and then onwards). Export traffic is slightly biased towards road transport but only makes up a very small proportion of tonnages. Land based transit traffic is slightly biased towards rail but again only makes up a very small proportion of tonnages.

Figure 51 - B.51 - Current Modal Split Land Based Latvian Freight Traffic, Import/Export/Domestic and Transit, 2009



Routes which travel in a North – South direction to/from Latvia with an annual tonnage of over 15,000 tonnes per annum have been considered as routes which may be viable for Rail Baltica as this equates to an approximately fortnightly service for non bulk traffics. Routes with lower volumes may provide some traffic; however, they will not form the core service for Rail Baltica.

In terms of traffic types relevant cargo has been taken as either dry bulk, general cargo or non bulk traffics such as containers, ferro or food products.

Baltics traffics have only been considered for the following routes, which are deemed to be of sufficient proximity to the line and long enough distance to compete with road traffic:

- Vidzeme to Zemgale and vice versa
- Vilnius, Kaunas, Panevėžys, Klaipėda sea port and Alytus to Riga City & Region, Zemgale and Vidzeme and vice versa
- Põhja-Eesti, Kesk-Eesti and Lõuna-Eesti to Riga City & Region, Zemgale and Vidzeme and vice versa

More information on how Baltics traffic has been split and the levels of accuracy and detail available can be found in the modelling report.

The table below shows the current volumes on each of the routes for bulk / general cargo and non bulk traffics and the modal split of these volumes.

Table 56 - B.56 - 2008 Tonnages for Major North – South Freight Routes

Origin	Destination	Non Bulk Current Volumes (’000 Tonnes pa)	Dry Bulk / General Cargo	Modal Split Dry Bulk / General Cargo			Modal Split Non Bulk		
				Road	Rail	Sea	Road	Rail	Sea
Estonia	Latvia	177	371	78%	15%	7%	90%	8%	2%
Finland	Latvia	96	233	11%	0%	89%	18%	0%	82%
Germany	Latvia	1320	345	70%	0%	30%	12%	0%	88%
Latvia	Estonia	62	439	48%	36%	17%	37%	63%	0%
Latvia	Germany	1168	4052	5%	0%	95%	12%	0%	88%
Latvia (N)	Latvia	297	790	98%	2%	0%	99%	1%	0%
Latvia (S)	Latvia	259	690	98%	2%	0%	99%	1%	0%
Latvia	Lithuania	183	499	14%	85%	1%	42%	58%	0%
Latvia	Finland	82	2415	1%	0%	99%	26%	0%	74%
Latvia	Russia – Gulf of Finland Only	225	521	99%	0%	1%	100%	0%	0%
Lithuania	Latvia	293	707	22%	65%	14%	56%	39%	4%
Russia – Gulf of Finland Only	Latvia	62	204	52%	0%	48%	87%	0%	13%
Poland	Latvia	52	93	89%	0%	11%	81%	0%	19%

Sources: Eurostat for road and sea freight data, rail freight data from Eesti Raudtee Annual Report 2008, detailed information provided by the Lithuanian government and detailed rail freight data provided by LDZ.

The main traffics which Rail Baltica can look to compete with are:

- although there is substantial road freight transport of non bulks from Germany to Latvia.
- Latvia – Finland, bulk traffics currently carried by sea, some returning flows
- Latvia – St Petersburg area, predominantly bulk traffics currently carried by road
- Lithuania – Latvia, competition with existing rail and road freight services for bulk and non bulk traffics, some returning flows
- Latvia – Estonia, predominantly bulk traffics, competition with road and current rail services

Some competition with long distance domestic traffic may also be possible, particularly within non bulk markets.

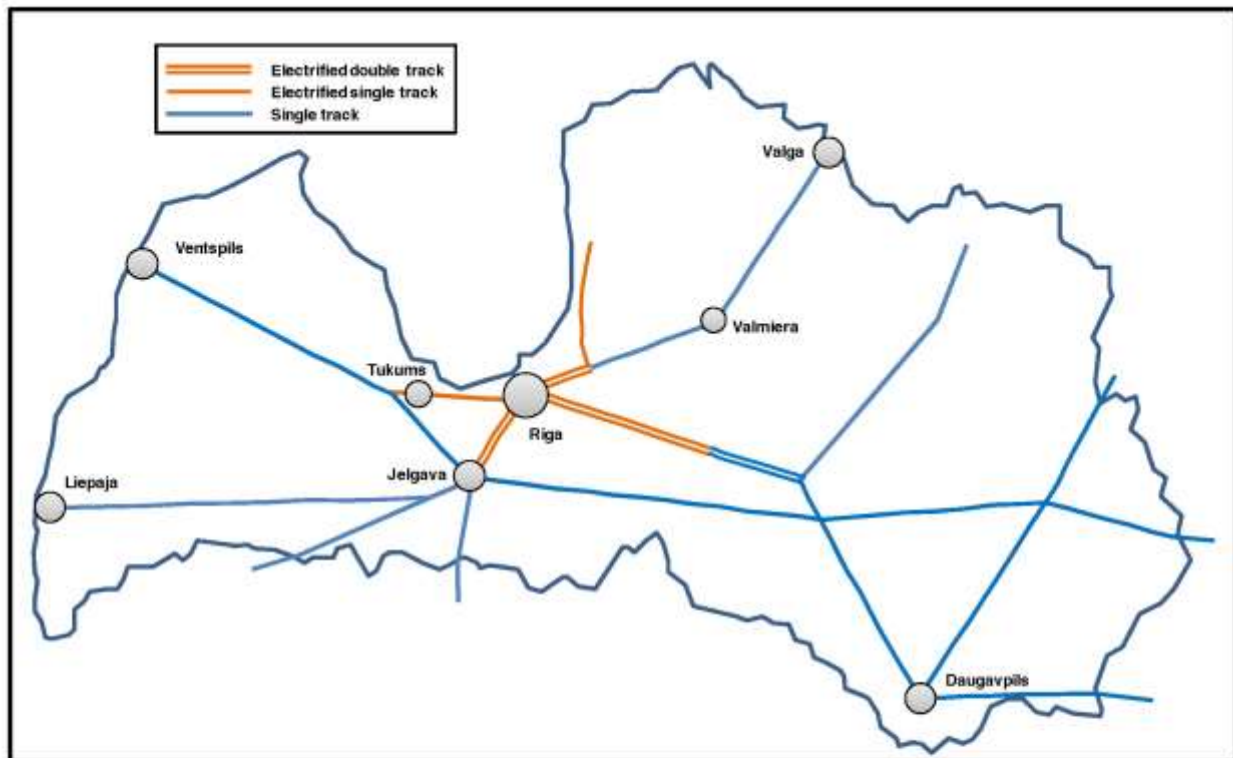
Rail Network

The Latvian rail network is comprised of Russian gauge (1,520 mm) lines, with a small proportion of electrified track, principally around Riga with the longest section covering the 82km route from Riga to Aizkraukle. A smaller proportion of railway lines into Riga are also double-track. Figure 4.53 shows a map of the national railway network. There are regular services on the local rail network radiating from Riga; however, services are less frequent on longer distance routes.

Generally speaking, the railway stations have not been renovated for a long period of time. Therefore they require investment both in the infrastructure by improving the functionality of the stations, as well as in design by, for example, simply renovating them.

The same is true for the rolling stock, which have in many cases not been modernized since the 1990s. In general terms the punctuality of the railway is satisfactory.

Figure 52 - B.52- Latvian Rail Network



New Rail Development Plans

Long-term development goal of JSC Latvian Railways is to increase infrastructure capacity to 85 mln t per year instead of current 62 million tonnes.

During next years there are several projects which will be implemented:

- (1) Building of the Second Track in Riga – Krustpils Section;
- (2) Reconstruction of Station Bolderaja I and Station Bolderaja II and Building of Connective Tracks in Krievusala (Port of Riga development);
- (3) Modernisation of Riga Railway Junction.

Key Rail Passenger Routes

For the purposes of the study, the following key routes in Latvia have been identified: Riga – Jelgava, and Riga – Daugavpils, Riga – Tukums, Riga – Valmiera. Table B.22 summarises the details of the routes and table B.23 scores each route according to the passenger metrics.

Table 57 - B.57 Latvian Rail Quality Metrics – Passengers, Detailed Information

	Line description	Approximate Distance (Km)	Service Frequency (trains per day)	Service Volume (2-way passengers per day)	Average Journey Time (hh:mm)	Economy Single Fare (Euros)
Riga – Jelgava	Electrified double track from Riga – Jelgava	45	23	3,166	00:48	1.91
Jelgava – Riga			24		00:48	
Riga – Daugavpils	Electrified double track from Riga – Aizkraukle, diesel from Aizkraukle – Daugavpils	232	3	185	03:26	6.64
Daugavpils – Riga			3		03:26	
Riga – Tukums	Electrified double track from Riga – Tornakalns, electrified single track from Tornakalns – Tukums	66	13	758	01:18	2.47
Tukums – Riga			13		01:19	
Riga – Valmiera	Electrified double track from Riga – Zemitani, diesel from Zemitani – Valmiera	109	4	72	02:22	3.95
Valmiera – Riga			4		02:24	

Table 58 - B.58 - Latvian Rail Quality Metrics – Passengers, Route Scoring

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)	Mode Share	
L A T V I A							
Riga-Jelgava	Fair	Fair	24 trains per day	Excellent	56	27%	4.24
Score	3	3	4	5	1	4	4
Riga-Daugavpils	Fair	Fair	3 trains per day	Excellent	68	4%	2.86
Score	3	3	1	5	2	3	4
Riga-Tukums	Fair	Fair	13 trains per day	Excellent	51	19%	3.74
Score	3	3	3	5	1	3	4
Riga-Valmiera	Fair	Fair	4 trains per day	Excellent	46	2%	3.62
Score	3	3	1	5	1	1	4

Rail Freight Quality

Government statistics state that there are 70 stations with rail freight operations as of 2009 (down from 124 in 1985), of these 33 are dedicated cargo stations. There are 78 rail freight terminals within LDz Cargos terminals list (LDz Principal Service Policy).

The majority of rail freight is carried by LDz Cargo, with 20% carried by private operators Baltijas Ekspressis and Baltijas Tranzita Serviss. LDz offer the following services:

- international export - import and transit traffic through the Baltic and CIS railways;
- freight documentation;
- cargo customs formalities;
- information about customer freight movement;
- transportation charges calculations;
- OAO TransContainer's fitting platform for invoicing and container security;

- circular route management;
- cargo storage and other services in port areas;
- combined intermodal service - door to door

The punctuality of the freight trains in the year 2009 comprised 91.2% of trains on time according to LDZ.

Rail Freight Pricing

For rail freight tariffs for carrying of cargos are not regulated by governmental institutions. Information about the tariff methodology for LDz Cargo reveals that "LDz Cargo" calculates its tariff on the basis of cargo (according to the Harmonised Cargo Nomenclature), distance, type of carriage, speed, weight, type and ownership of the rolling stock, category and ownership of the container and services to be provided. An extremely detailed algorithm for calculating the tariff is available in the tariff lists. LDz provide substantial discounts for customers with large volumes (from 5% for 25 containers or wagons per month to 65% for 4000). Tariffs are provided in lats for import, export and domestic traffic and in Euros for transit traffic.

Simplified tariffs are as follows (taking into account the various parts of the formula and assuming 55 tonne wagons for bulk and 40 tonne for containers, including VAT and using the latest coefficients) :

Table 59 - B.59 - Latvian Rail Freight Pricing: Bulk Traffic: Import/Export and Domestic – Price in Lats, July 2010

Distance, km from - to	Type of Transport					
	Universal Rolling Stock: Covered Wagon, Half Wagon & Platform	Dedicated Rolling Stock	Oil	Gas and Most Chemicals Tankers	Other Tankers	Refrigerated
51 - 60	162	165	181	356	225	622
101 - 110	183	191	206	384	252	665
151 - 160	205	214	229	411	280	709
201 - 210	225	239	255	439	307	752
251 - 260	246	263	280	466	335	795
301 - 310	268	288	305	494	362	838
351 - 360	288	311	328	521	390	881
401 - 410	310	336	353	549	417	924
451 - 460	331	361	378	576	445	966
501 - 510	353	385	403	604	472	1009
551 - 560	373	410	427	631	500	1052
601 - 610	394	434	452	659	527	1095
651 - 660	416	459	477	686	555	1138
691 - 700	433	477	496	708	576	1173

Table 60 - B.60 - Latvian Rail Freight Pricing: Container Traffic: Import/Export and Domestic – Price in Lats, July 2010

Distance, km		Container Size			
from - to	3 tonne	5 tonne	10 feet	20 feet	30, 40 feet
51 - 60	26	42	55	82	160
101 - 110	29	47	62	91	179
151 - 160	32	52	68	101	198
201 - 210	35	56	75	111	217
251 - 260	38	62	82	120	237
301 - 310	41	67	88	130	255
351 - 360	44	72	94	139	273
401 - 410	47	78	102	148	293
451 - 460	50	82	108	159	312
501 - 510	53	87	114	168	332
551 - 560	56	93	122	177	350
601 - 610	59	98	128	186	370
651 - 660	62	102	134	195	388
691 - 700	64	107	140	203	403

Table 61 - B.61 - Latvian Rail Freight Pricing: Container Traffic: Transit Traffic via the Ports – Price in Euros per Container, July 2010

Route		Container Type		
Border station	Port station	10'	20'	30 and 40'
Meitene (Lithuania)	Riga	67	93	180
Lugaži (Estonia)	Riga	87	122	238
Meitene (Lithuania)	Ventspils	93	129	252
Lugaži (Estonia)	Ventspils	124	174	340

Table 62 - B.62 - Latvian Rail Freight Pricing: Container Traffic: Transit Traffic by Land – Price in Euros per Container, July 2010

Route		Container category				
Border station	Border station	3 t	5 t	10 feet	20 feet	30, 40 feet
<i>Traffic Estonia – Lithuania</i>						
Lugaži	Meitene	35	64	104	146	285

The key route for Rail Baltic is from Lugaži to Meitene which currently costs €146 for a 20' container and €285 for a 40'. This is equivalent to €0.64 per km for a 20' and €1.25 for a 40'.

Table 63 - B.63 - Latvian Rail Freight Pricing: Costs for Bulk Transit Traffic – Euros, July 2010

Route		Cargo in universal and dedicated wagons and oil	
Border station	Port station	Euros per Tonne	Euros per Tonne km (Apprx)
Meitene	Riga	3.1	0.044
Lugaži	Riga	4	0.025
Meitene	Ventspils & Liepāja	4.2	0.021
Lugaži	Ventspils & Liepāja	5.65	0.017

LDZ provided the following quotes to us for an import/export journey and a transit journey at the beginning of July 2010:

Table 64 - B.64 - Latvian Rail Freight Pricing: Quotes Provided

Type of goods	Mode of transportation	Price – Transit of 302km	Price – Import/Export Journey of 91km	Transit Price per tonne km or container km	Domestic Price per tonne km or container km
Coal	Wagon	6,43 EUR/tonne	253,68 EUR/wagon	0.02	0.05
Steel	Wagon	6,43 EUR/tonne	253,68 EUR /wagon	0.02	0.05
Automobiles	40 Feet container	286,20 EUR/container	125,54 EUR/container	0.95	1.38
Various goods (containers)	20 Feet container	143,95 EUR/container	125,74 EUR/container	0.48	1.38

These quotes are consistent with the publically available tariffs suggest it is assumed that a mistake was made regarding the pricing structure between 20' and 40' containers for the domestic journey (quoted 40' prices for both).

The table below presents the standard tariff prices per km compared to the quotes received. The journey lengths have been selected to represent likely journeys: the import/export flow is the distance from Tallinn to Riga.

Table 65 - B.65 - Latvian Rail Freight Pricing: Price in Euros: Quoted Rate Compared to Published Tariff for an Average Lorry Load

Journey Type	Standard Tariff			Quoted Price	
	Domestic	Import / Export	Transit	Domestic	Transit
Distance Assumed	91km	351km	342km	91km	351km
Bulk (universal rolling stock)	1.08	0.90	0.43	0.90	0.38
40' Container	1.37	0.56	0.98	1.38	0.95
20' Container	0.7	0.29	0.50	0.69	0.48

The domestic journey works out at roughly the same rate as Estonia rail. It can easily be seen, however, that increasing journey length substantially reduces costs per km for import/export and domestic traffic therefore longer distance journeys are much more likely to be competitive with road.

Road Network

Latvia has a number of E-Roads linking with Estonia and Lithuania. The E67 is the principal road route from Riga to Tallinn and the E264 is the most direct route from Riga to Tartu. The E77 also links Riga with Estonia; however, it crosses the border very close to the Estonian / Russian Federation border providing a route from Latvia to St Petersburg. The principal links between Riga and Lithuania are the E77 to Siauliai (and also on to Kaliningrad) and the E67 to Panevezys. The following Figure displays all the routes classified as E-Roads within Latvia together with the other main highway routes.

Figure 53 - B.53- Latvian Road Network



(Source: Latvian State Roads)

New Development Plans

The following future highway schemes are relevant to the Rail Baltica proposals.

- Extension of Riga ring road by building new Daugava river crossing and connecting Salaspils with Iecava (connection from A4 to A7 road (E67 route)) by a "straight line" which is predicted to lead to time savings of approximately 9-12 minutes for a passenger car;
- Kekava ring road. Will improve exit from Riga to south direction saving 3 to 5 minutes of driving time and improving driving comfort and safety. Implementation dates are not known at present.

Key Road Passenger Routes (Car)

Table 66 - B.66- Latvian Road Quality Metrics (Cars) – Passengers, Detailed Information

	Highway description	Approximate Distance (Km)	Traffic volume 2-way (AADT)	Average Journey Time (hh:mm)	Average Speed (kph)
Riga – Jelgava	A8: dual carriageway out of Riga for 45km to Jelgava	45	7,234	00:44	61
Jelgava – Riga					
Riga – Daugavpils	A6: dual carriageway out of Riga 140 km to Jekabpils, single carriageway 56 km to P64, dual carriageway then to Daugavpils	232	3,239	03:25	68
Daugavpils – Riga					
Riga - Tukums	A10: dual carriageway out of Riga 24km to Jurmala, otherwise single carriageway	66	2,828	01:02	64
Tukums – Riga					
Riga – Valmiera	A2: dual carriageway out of Riga 55km to Sigulda, otherwise single carriageway	109	2,909	01:49	60
Valmiera – Riga					

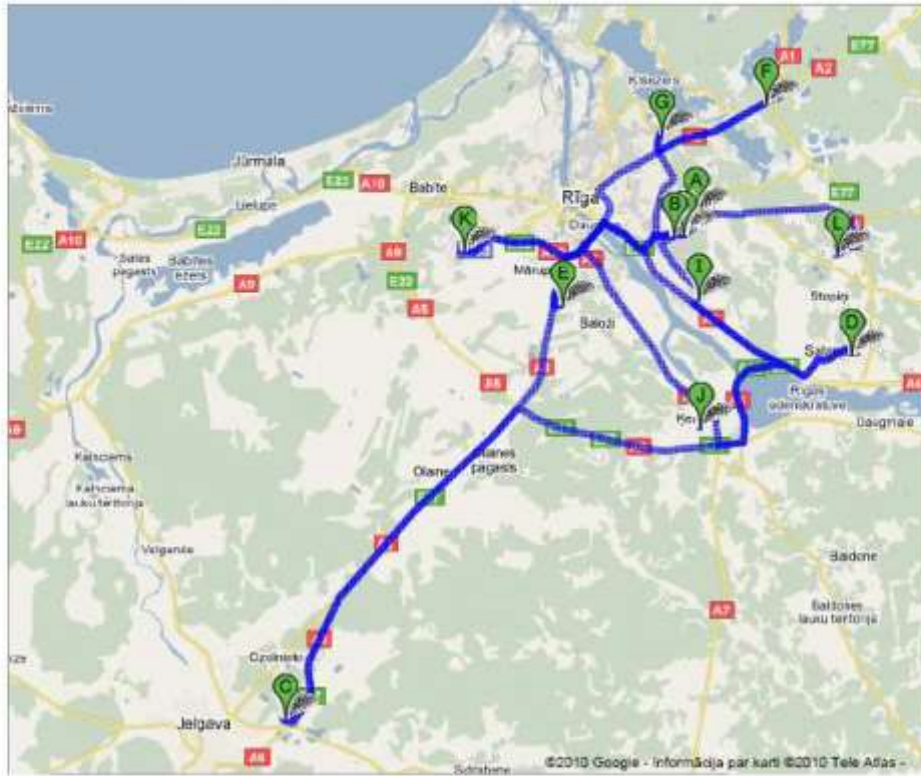
Table 67 - B.67- Latvian Road Quality Metrics (Cars) – Passengers, Detailed Information

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)	Mode Share	
L A T V I A							
Riga-Jelgava	Fair	Fair	Anytime	Fair	61	62%	8.55
Score	3	3	5	3	2	5	3
Riga-Daugavpils	Fair	Fair	Anytime	Fair	68	67%	8.55
Score	3	3	5	3	2	5	3
Riga-Tukums	Fair	Fair	Anytime	Fair	64	71%	8.55
Score	3	3	5	3	2	5	3
Riga-Valmiera	Fair	Fair	Anytime	Fair	60	79%	8.55
Score	3	3	5	3	2	5	3

Current Logistics Centres

The following Figure shows the location of current key Latvian logistics centres. All of the current Latvian logistics centres are within easy reach of the proposed line, however, red and yellow routing options travel closest to the existing logistics centre bases which are primarily east of Riga. The only terminals which might be better served by the green/orange line combination is DHL's facility in Jelgava (C) and Riga Airport Business Park (K) the latter of which is unlikely to generate much rail freight traffic. A site near to or at the A, B and H cluster could be a good site for an intermodal terminal as this includes current Schenker facility, RIMI logistics operation and Atlas warehousing and is only a short distance from the majority of the other facilities.

Figure 54 - B.54 - Location of Key Latvian Logistics Centres



Road Freight Charging

The introduction of road charges in Latvia is delayed due to the overall economic situation and proposals of representatives of road transport agencies. Originally Road user charges law stipulated that the Euro vignette in Latvia be introduced on 1 July 2009, however, given the economic situation in the country and road transport industry's request, and currently this duty is postponed to January 1, 2011. The new date of introduction of road charges (01.01.2012) amounts and mechanism how fees will be collected will be developed by government after approval of all necessary legislation projects.

Current Road Freight Prices

As noted previously for road freight traffic quotes were sought from a variety of Eastern European hauliers which provided an average freight fee of between €0.9 and €1.15 per km. It can be seen that the rail freight price is lower than this for 20' containers and transit bulks, similar for import/export and domestic bulks and higher for 40' containers for shorter journeys.

Coach Network

Similar to the other Baltic States an extensive inter-city coach network has been established in Latvia operated by modern fleet of coaches and competes with existing rail services internal to Latvia. On the core route from Riga to Jelgava, there are high frequency mini bus services (approx 80 per day), providing strong competition to the rail service on this corridor.

New Development Plans

Coach operators will benefit from planned road improvement schemes in Latvia.

Key Coach Routes

Table 68 - B.68 - Latvian Road Quality Metrics (Coaches) – Passengers, Detailed Information

	Approximate Distance (Km)	Service Frequency (coaches per day)	Service Volume (2-way) passengers per day	Average Journey Time (hh:mm)	Economy Single Fare (Euros)
Riga – Jelgava	45	79	1,191	00:55	2.12
Riga - Daugavpils	232	29	1,384	03:30	7.90
Riga – Tukums	66	21	394	01:22	2.96
Riga – Valmiera	109	18	713	02:10	4.24

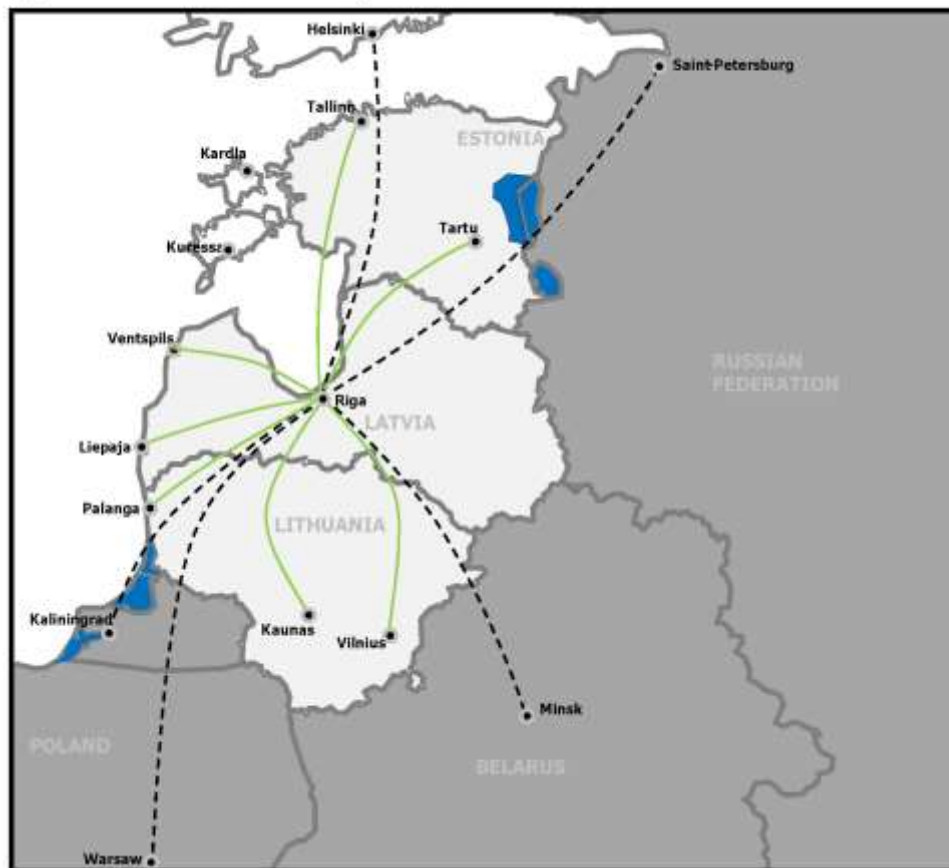
Table 69 - B.69 - Latvian Road Quality Metrics (Coaches) – Passengers, Route Scoring

	Quality		Service			Mode Share	Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)		
L A T V I A							
Riga-Jelgava	Fair	Fair	79 coaches per day	Fair	49	10%	4.71
Score	3	3	4	3	1	2	4
Riga-Daugavpils	Fair	Fair	29 coaches per day	Fair	66	29%	3.41
Score	3	3	4	3	2	3	4
Riga-Tukums	Fair	Fair	21 coaches per day	Fair	48	10%	4.48
Score	3	3	3	3	1	2	4
Riga-Valmiera	Fair	Fair	18 coaches per day	Fair	50	19%	3.89
Score	3	3	3	3	1	3	4

Air Passenger Network

There are a number of civil airports in Latvia providing commercial aviation including international flights, these include Riga International Airport, Liepaja International Airport and Ventspils International Airport. There are domestic flights in Latvia between Riga and Ventspils and between Riga and Liepaja, but none that link the key routes described above. During the period from January - May 2010, Riga airport handled a total of 2.1 million passengers, which was 15.1% more than the same period the previous year. The following Figure illustrates the principal air routes available from Latvian airports for the Baltic region.

Figure 55 - B.55 - Latvian Air Passenger Network



New Development Plans

The Latvian national airline, Air Baltic, has announced (August, 2010) an international design contest in which architects are invited to submit their ideas or concepts for the new terminal at North Hub Riga. Architects are invited to create their concepts for a terminal with capacity of around 7-8 million annual passengers (14 million eventually) on a designated vacant site at Riga airport.

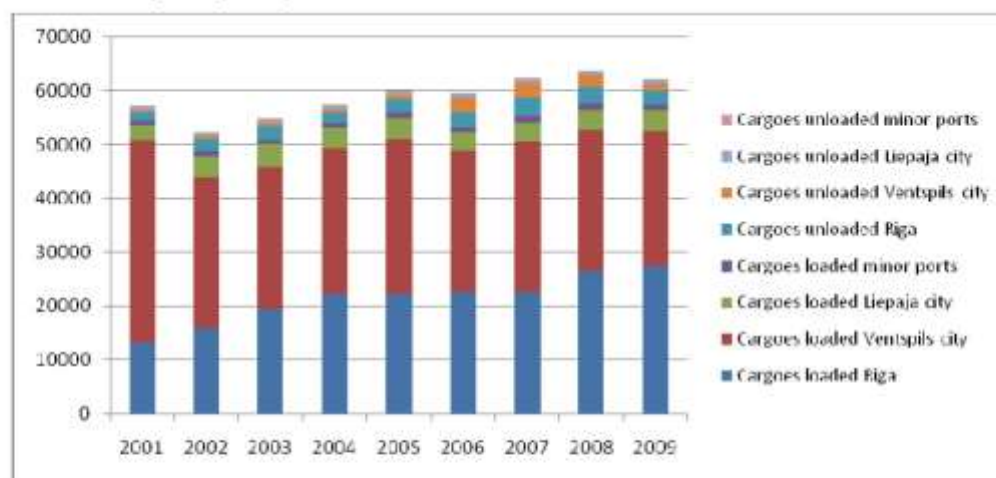
Key Air Passenger Routes

There are no internal flights between the identified key routes for Latvia.

Sea Freight Volumes and Facilities

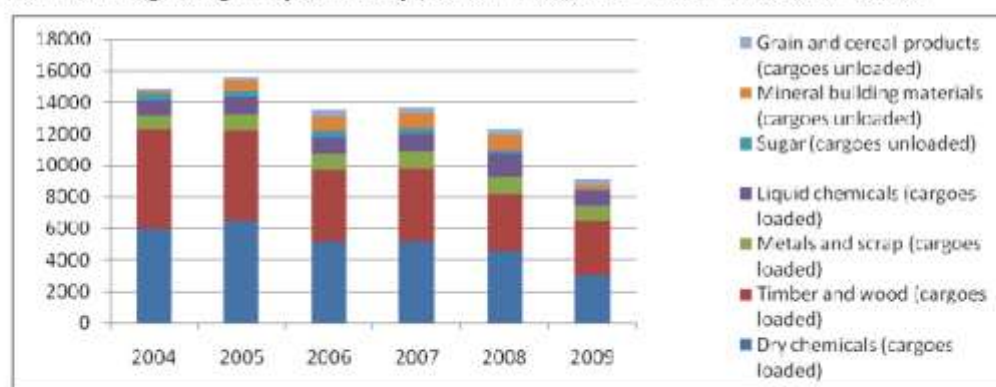
Sea transport accounted for 62 million tonnes in 2009, a slight decrease on 2008. The majority of freight by sea is loaded at Riga or Ventspils. With a very large imbalance being present between cargoes loaded and unloaded (cargoes unloaded only represent 7% of the total).

Figure 56 - B.56 - Sea Freight Cargoes by Port within Latvia, 2003 – 2009, Thousands of Tonnes



Oil products represent 38% of port traffic. The other main commodity groups are shown below with chemicals and timber representing a large proportion of this traffic. Containers represented 3% of the tonnage through Latvian ports in 2009.

Figure 57 - B.57 - Sea Freight Cargoes by Commodity (Non-Oil Traffic), 2004 - 2009, Thousands of Tonnes



Riga port represents the main port handling commodities which are travelling in a north-south direction. Ventspils handles much lower volumes and Liepaja lower volumes again. The outbound: inbound traffic imbalance is also present for north-south traffics but not to as great an extent as for total sea freight within the country.

Table 70 - B.70- Thousand Tonnes by Latvian Port and Commodity in North-South Direction, 2006, not including liquid bulk

	Riga	Ventspils	Liepaya
Inward Containers	880		9
Outward Containers	594	4	6
Inward Dry Bulk	95	132	175
Outward Dry Bulk	4736	1407	248
Inward RoRo	141	294	
Outward RoRo	249	384	8
Inward Other	75	10	14
Outward Other	454	98	332
Total Inward	1191	436	198
Total Outward	6033	1893	594

Given the relatively low volumes of traffic and the positions of Ventspils and Liepaja away from the proposed route for Rail Baltica only Riga port is examined in detail here.

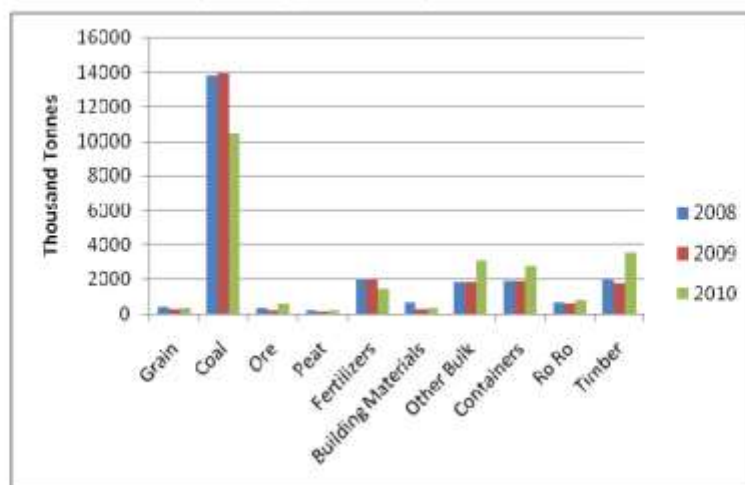
Figure 58 - B.58 - Location of Key Latvian Sea Freight Facilities



Riga has traditionally been considered as the Western end of the Trans-Siberian Railway. Loading capacity at the terminals of the Freeport of Riga accounts for 45 million tons per annum. The port has an important role in ensuring the functioning of multimodal West-East and North-South transport corridors. In 2009 the volume of the transshipped cargoes reached 29.7 million tons –the highest index during all the 805 years of Riga port activities.

The main types of cargo handled at the Freeport of Riga are containers, various metals, timber, coal, mineral fertilizers, chemical cargoes, oil and food products. The graph below shows dry bulk and general cargo traffic from 2008 to 2009.

Figure 59 - B.59 - Dry Bulk and General Cargo Tonnages, Port of Riga, 2008 to 2009



*2010 figures based on % increase/decrease for Jan – Aug 2010 compared to Jan – Aug 2009

From Jan 2010 – Aug 2010 a 13.9% decline in bulk cargos has been seen compared to the same period from the previous year (due to a 25% decrease in both coal and fertilizer traffic), whereas general cargos have increased 64.5% with large increases in container and timber traffic. Largest turnover of the total amount is provided by companies "Unifeeder" (34%) and "MSC" (24%).

Cargo mostly comes from the Far East, China, India, Korea and Japan. At present the cargo at the Freeport of Riga is assembled for dispatch to the Far East regions, comprising mainly containers with timber, raw materials, construction materials, mineral fertilizers, spare details and other cargo. Up to 80% of the Freeport of Riga cargo turnover is made up of transit cargoes forwarded to or received from the CIS.

The container terminal, Baltic Container Terminal, was built in Riga in the 1980's and handles the majority of Riga's container traffic. Baltic Container Terminal Limited (BCT) is a privately owned container terminal operating within the Free Zone of Riga Freeport. BCT is positioning itself as the Gateway via Latvia to act as a main distribution centre in the Baltic Region and the CIS. Baltic Container Terminal Ltd is equipped with an advanced terminal computerisation control system – the NAVIS SPARCS System – to guarantee improved quality services. The Infrastructure available includes much more than a normal feeder port would normally require and BCT has a capacity of handling in excess of 350,000 TEU per annum in its present state (in 2008 it handled 207,000 TEU and it handled 183,000 TEU in 2009). A total of 13,500 m² of covered storage space is available. The terminal has a draft of 11.7m and a 25 meter ro-ro ramp is available at the west end of the quay making a ro-ro, lo-lo operation possible simultaneously. The terminal is directly linked to the main rail routes with access from the terminal in place at quay side, at the warehouses and container freight station facilities.

The port of Riga is looking to develop its container transshipment capability and is involved in preparatory activities for a container terminal construction Kunzdinsala to be called the National Container Terminal and is to have a draft of 13.5m and its own rail infrastructure. An investment of 350 million euros is to be made by Latvian and Russian partners. Services are not being provided as yet, NKT quotes that plans are as follows:

Table 71 - B.71- Development Plans at the Port of Riga

Development Round	Year of implementation	Cargo turnover	
		Containers (TEU)	Automotive
1st round, stage 1	2010	130000	-
1st round, stage 2	2010	190000	200000
1st round, stage 3	2012	300000	400000
2nd round	2016	550000	500000

3rd round	2018	700000	500000
4 th round	2021	850000	500000

The second major project of Riga port is construction of a new multifunctional cargo terminal on Krievu Sala, that will cost approximately 100 million EUR, and 85 million EUR have already been allotted to this Project by the European Union.

Elaboration of the draft design for the ship access channel reconstruction has begun. The project aims at deepening and widening of the Port of Riga harbour entrance access channels, in order to provide secure services to vessels with maximum length of 260 m, beam up to 48 m, and draft up to 15 m (only the vessels with draft up to 15 m can enter the Baltic Sea due to depth restrictions in the Danish Straits). Multifunctional terminal center of Krievu Island will be able to process 15 million tons of cargo, besides; it will be possible to ensure handling of relevant cargo types in compliance with the actual market situation.

Sea Freight Prices

For sea freight prices were requested from a variety of lines listed as operating from Tallinn, Riga and Klaipeda ports. Responses for journeys to/from Latvia were as follows:

Table 72 - B.72- Latvian Sea Freight Prices

Shipping Line	Routes of Interest	Type of Traffic	Journey Time	Cost EUR	Frequency of Service
MSC	Riga - Helsinki	40' container	2 weeks	1355	1 time week
	Riga - Tallinn	40' container		Closed route	
UAB Containership	Hamburg - Riga	40' container	5 days	1350	1 time week
UAB „Limarko jūrų agentūra” (Team Lines Deutschland GmbH & Co)	Hamburg - Riga	40' container		Closed route	
	Bremerhaven - Riga	40' container		Closed route	
Team Lines	Muuga - Riga	40' container		Closed route	
Team Lines Latvia SIA	Riga - Hamburg	40' container	3-4 days	585	2 times in week
CMA - CGM	Gdynia - Riga	40' container	2-12 days (in mid August due to service changes shipment will be effected via Hamburg)	1050	1 time in week
	Hamburg - Riga	40' container	3 days	500	1 time in week
	Riga - Muuga	40' container	2 days	300	1 time in week
	Riga - St Petersburg	40' container	14 days (shipment via Hamburg)	1150	1 time in week
Unifeeder Container Service Ahlers Agencies	Hamburg - Riga	40' container	4-5 days	840	1 time in week
	Riga - Klaipeda	40' container		Closed route	
	Riga - Rauma	40' container		1205	
Ave Line	Riga - Travemünde (Germany)	Ro Ro - 40T articulated lorry	29 hours	680	2 times in week

All services researched are through Riga. Services are provided to/from Finland (Helsinki), Estonia (Tallinn: Muuga), St Petersburg, Poland (Gdynia) or Germany (Hamburg, Travemünde). Operators contacted for services advertised to Lithuania stated that the routes had been closed; some operators had also closed routes to Germany and Estonia.

Rates per km are roughly as follows:

- Latvia to Finland: €2.28 to €2.93
- Latvia to Estonia: €0.7 per km
- Latvia to Germany and vice versa: €0.35 to €0.94 per km, average €0.63
- Poland to Latvia: €2.19
- Latvia to St Petersburg: €1.72

It can be seen that the sea rates for trips to Germany are considerable lower than sea rates to all other countries.

Freight Journey Times and Service Frequencies

A comparison of current road and rail freight journey times for key routes to/from Latvia can be seen below:

Table 73 - B.73- Journey Times and Service Frequencies for Journeys to/from Latvia

From	To	Road Distance	Rail Distance	Sea	Road	Current Rail
Latvia	Estonia	307	360	2 days	6 – 7 hours	3 - 4 days
Latvia	Finland	316 + sea leg	360 + sea leg	2 weeks – long route	9 – 10 hours + 4 hours sea	6 – 7 days + handling time + + 4 hours sea
Latvia	Lithuania	263	285		5 – 6 hours	2 – 3 days
Latvia	Germany	1010	1409	29 hours – 5 days, usually 3 days	18 – 19 hours	
Latvia	Poland	653	759	2 – 12 days	12 – 13 hours	7 – 8 days
Latvia	St Petersburg	567	683	14 days via Hamburg	10 – 11 hours	
Latvia	Italy	2096	2096		43 hours	
Jelgava	Valmiera	153	153		3 – 4 hours	

By sea the following approximate service frequencies are advertised by Baltic Container Terminal at Riga port:

Route	Line	Agent	Frequency
Riga-Bremerhaven-Hamburg-Rotterdam-Antwerpen-Arhus-Goteborg-Gdynia/Gdansk-Stockholm-Gavle-Rauma-Riga	Unifeeder	Ahlers	2 x Weekly
Riga-Bremerhaven-Hamburg-Gdansk/Gdynia-Klaipeda-Galve-Tallin-Riga	Team Line	Nurminen	2 x Weekly
Riga-Norrkoping-Antwerpen-Bremerhaven-Kaliningrad-Riga	MSC	MSC Latvia	Weekly
Riga-Bremerhaven-Hamburg-Gdansk/Gdynia-Klaipeda-Riga	CMA-CGM	Nurminen	Weekly
Riga-Bremerhaven-Hamburg-Gdansk/Gdynia-Klaipeda-Riga	ESF	Rinella	Weekly

In addition it is known that there are the following services:

- Riga – Helsinki Weekly
- Hamburg – Riga Weekly
- Riga – Travemunde 2 x Weekly Ro Ro Service

As mentioned previously road freight times have been taken from route planning software with drivers hours legislation taken into account in calculating the journey times. Sea freight times have been taken from the quotes provided. As rail freight services are not regularly available for the routes shown they have been calculated using formulas of the agreement on the international railway carriage of freight (SMGS), and therefore these times are somewhat "theoretic". Generally road is the fastest mode currently (with the exception of the express sea freight service to Germany). Currently rail is substantially slower than both sea and road. As for Estonia the speed limit for HGVs is 50km/h in a built up area and 90km/h elsewhere.

As with Estonia a large proportion of current rail freight is travelling to/from the ports for onward distribution (78% of 2008 traffic according the LDZ yearbook), the majority of this is likely to be transport from Russia and Belarus. Of the terrestrial transit the main countries LDZ carries to/from are Russia (30%), Estonia (23%), Belarus (9%), Kazakhstan (9%) and Lithuania (8%).

Current export volumes north south are largest to Estonia (664,000 tonnes in 2009), Lithuania (51,000 tonnes) and Finland (49,000 tonnes). Current import volumes north south are largest to Lithuania (819,000 tonnes in 2009) and Estonia (125,000 tonnes).

For transit transport the main origins and destinations are:

From	Thousand Tonnes, 2009	To	Thousand Tonnes, 2009
Belarus	1122	Netherlands	883
Lithuania	732	Estonia	749
Russia	653	Lithuania	479

Currently there are two regular container trains provided by LDZ: Baltica-Transit and ZUBR.

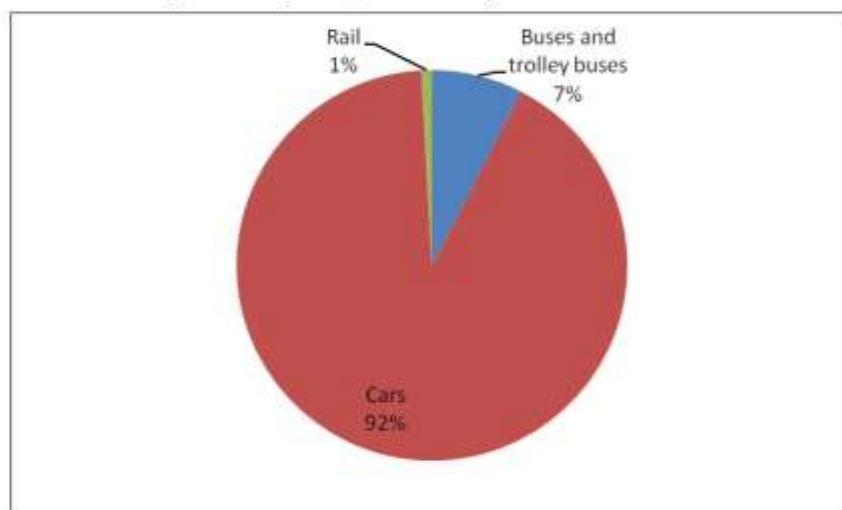
- Baltica-Transit – as mentioned previously. The final formation of the wagon groups into the train takes place in Latvia, at Rezekne station. Around 80% of the freight comes from Latvian seaports, 10% from Lithuanian and 10% from Estonian ports.
- ZUBR – as mentioned previously. LDZ have stated that the container train currently runs only on the route from Latvia to Belarus.

1.3.4 Lithuania

Current Modal Choice – Passengers

The following Figure shows the current modal split of Lithuanian land-based passenger traffic. Passenger kms were not available for air or sea. Rail forms only a very small proportion of passenger kms, with the private car being by far the dominant mode.

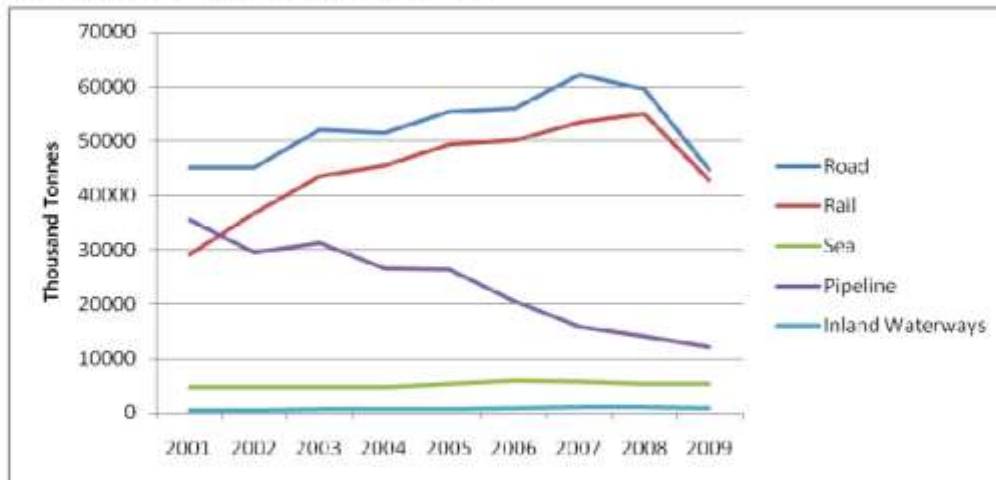
Figure 60 - B.60 - Lithuanian Passenger Traffic by Mode, 2008 Passenger-kms



Current Modal Choice – Freight

The majority of freight to/from Lithuania is carried by either road or rail. The graph below shows the modal split of freight within Lithuania for goods carried. In 2008, the model base year, 41% of goods to/from and within the country were carried by rail, 44% by road and 4% by sea.

Figure 61 - B.61 - Lithuanian Freight Traffic by Mode, 2001 - 2009



Pipeline volumes have consistently decreased since 2001, whereas both road and rail volumes had seen significant growth between 2001 and 2008, followed by a drop in 2009, however, monthly statistics show that rail freight volumes have increased substantially in 2010 compared to 2009 (the first eight months show a 15% increase on the same period last year) indicating that volumes are returning to rail.

Routes which travel in a North – South direction to/from Lithuania with an annual tonnage of over 15,000 tonnes per annum have been considered as routes which may be viable for Rail Baltica as this equates to an approximately fortnightly service for non bulk traffics. Routes with lower volumes may provide some traffic; however, they will not form the core service for Rail Baltica.

In terms of traffic types relevant cargo has been taken as either dry bulk, general cargo or non bulk traffics such as containers, ro ro or food products.

Baltics traffic has only been taken into account for the following movements:

1. Panevėžys, Šiauliai and Alytus to Kaunas
2. Alytus and Kaunas to Panevėžys and Šiauliai
3. Vilnius, Kaunas, Klaipėda sea port, Panevėžys and Alytus to Riga City & Region, Zemgale and Vidzeme and vice versa
4. All Lithuania regions to Põhja-Eesti, Kesk-Eesti and Lõuna-Eesti

These movements are deemed to be the only movements likely to have sufficient length of haul and proximity to the proposed line to be of relevance to the project. More information on how Baltics traffic has been split and the levels of accuracy and detail available can be found in the modelling report.

The table below shows the current volumes on each of the routes for bulk / general cargo and non bulk traffics and the modal split of these volumes.

Table 74 - B.74 - 2008 Tonnages for Major North – South Freight Routes to/from Lithuania

Origin	Destination	Non Bulk	Dry Bulk / General Cargo	Modal Split Dry Bulk / General Cargo			Modal Split Non Bulk		
		Current Volumes (000 Tonnes pa)	Current Volumes (000 Tonnes pa)	Road	Rail	Sea	Road	Rail	Sea
Estonia	Lithuania	83	92	100%	0%	0%	90%	8%	2%
Finland	Lithuania	111	80	20%	0%	80%	12%	0%	88%
Germany	Lithuania	1,265	461	69%	0%	31%	21%	0%	79%
Latvia	Lithuania	183	499	14%	85%	1%	42%	58%	0%
Lithuania	Estonia	55	67	99%	0%	1%	91%	0%	9%
Lithuania	Finland	367	580	41%	0%	59%	100%	0%	0%
Lithuania	Germany	849	955	36%	0%	64%	44%	0%	56%
Lithuania	Latvia	293	707	22%	65%	14%	56%	39%	4%
Lithuania (N)	Lithuania	2083	2904	87%	13%	0%	95%	5%	0%
Lithuania (S)	Lithuania	444	570	98%	2%	0%	99%	1%	0%
Lithuania	Russia – Gulf of Finland	417	627	96%	0%	4%	100%	0%	0%
Lithuania	Poland	373	727	39%	49%	12%	53%	24%	23%
Russia – Gulf of Finland	Lithuania	54	104	72%	0%	28%	91%	0%	9%
Poland	Lithuania	366	525	51%	17%	32%	48%	6%	45%

Sources: Eurostat for road and sea freight data, rail freight data from Eesti Raudtee Annual Report 2008, detailed information provided by the Lithuanian government and detailed rail freight data provided by LDZ

The key flows which Rail Baltica may compete with are:

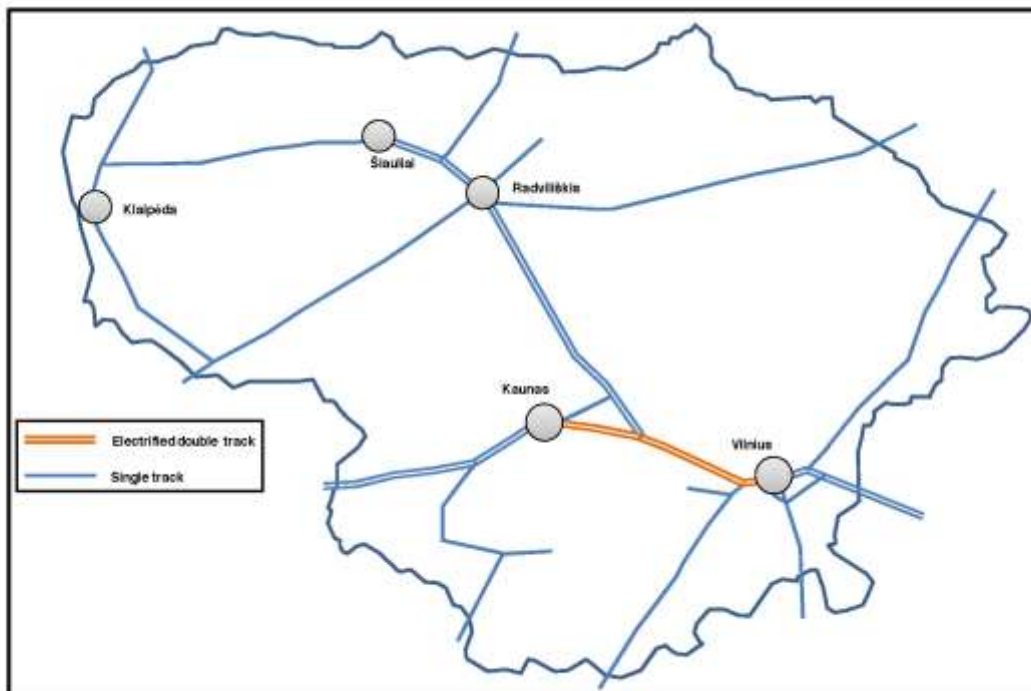
- Germany – Lithuania and Lithuania - Germany: combination of sea and road freight, both bulk and non bulk traffics
- Lithuania – Poland and Poland – Lithuania: primarily bulk freight some of which currently split between road, rail and sea

Some competition may also be possible for longer internal flows and some flows to/from Latvia if Rail Baltica can provide improved service levels over the current rail option.

Rail Network

The Lithuanian rail network is formed of Russian gauge (1,520mm) lines and is entirely operated by Lithuanian Railways, the National, State-owned railway company. 122 km of the route (about 7%) is electrified, with a significant proportion of the network linking Vilnius, Kaunas, Radviliskis and Siauliai comprised of double track. The following Figure contains a map of the Lithuanian rail network. The punctuality of the network is good however the rolling stock could do with modernisation

Figure 62 - B.62 - Lithuanian Rail Network



New Development Plans

In 2009, AB Lietuvos Geležinkeliai was implementing 107 infrastructure investment projects. The reconstruction of railway bridges and overpasses on International Corridor IX and the renovation of Kaunas railway tunnel were completed, and the modernisation of marshalling yards on International Corridor IX was completed.

In 2009, significant project that was started to be implemented is the development of Klaipėda railway junction.

Following projects are set as priorities of AB Lietuvos Geležinkeliai:

- (1) modernisation of the line Vilnius–Kaunas to increase the speed to 160 km/h;
- (2) Construction of second tracks on the lines Telšiai–Lieplaukė, Kūlpėnai–Kretinga, Pavenčiai–Raudėnai, Plungė–Šateikiai, and Telšiai–Dūseikiai.

Key Passenger Rail Routes

The routes between Kaunas and Vilnius and Kaunas and Šiauliai have been selected as the key internal movements within Lithuania which are likely to be impacted by Rail Baltica.

Table 75 - B.75 Lithuanian Rail Quality Metrics – Passengers, Detailed Information

	Line description	Approximate Distance (Km)	Service Frequency (trains per day)	Service Volume (2-way) passengers per day	Average Journey Time (hh:mm)	Economy Single Fare (Euros)
Kaunas – Vilnius	Electrified double track from Kaunas – Vilnius	104	17	2,740	01:26	4.63
Vilnius – Kaunas			17		01:26	
Kaunas – Šiauliai	Double track from Kaunas – Šiauliai	158	1	112	02:33	6.43
Šiauliai – Kaunas			1		02:33	

Table 76 - B.76- Lithuanian Rail Quality Metrics – Passengers, Route Scoring

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)	Mode Share	
L I T H U A N I A							
Kaunas-Vilnius	Fair	Fair	17 per day	Fair	73	14%	4.45
Score	3	3	3	3	2	3	4
Kaunas-Siauliai	Fair	Fair	1 per day	Fair	62	3%	4.07
Score	3	3	1	3	2	1	4

Rail Freight Quality

Lithuanian Railways is the operator of all rail freight services in Lithuania. The company also provides freight forwarding and warehousing services, wagon tracking and tracing and is responsible for passenger rail.

There are 109 rail freight stations in Lithuania which are shown in the map below:

Figure 63 - B.63 - Lithuanian Rail Freight Stations



The key stations are marked in red and are Kaunas, Vilnius, Klaipėda and Šiauliai. The following terminals handle containers:

Table 77 - B.77- Lithuanian Container Handling Facilities

20' and 30' Containers Only	Including 40' Containers
Alytus	Draugystė (adjacent to Klaipėda)
Klaipėda	Kaunas
Rimkai	Paneriai
	Šeštokai

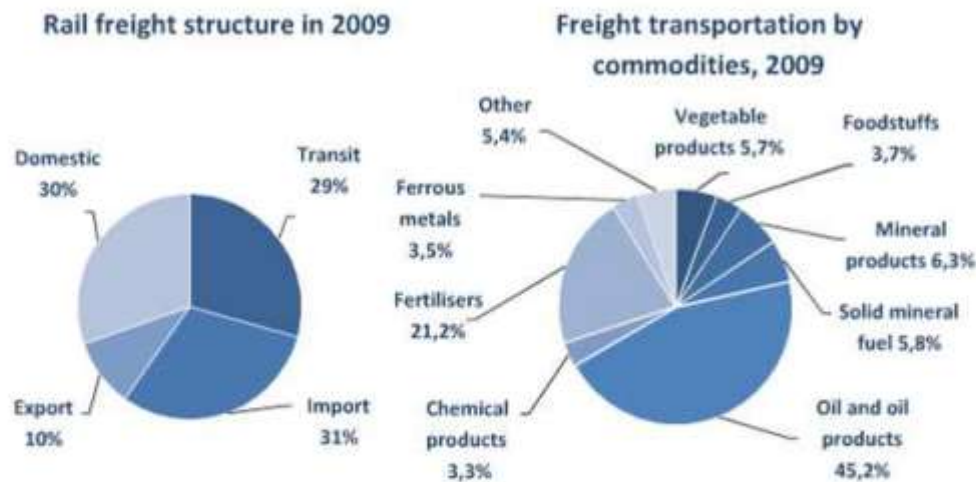
Of these stations Kaunas and Šeštokai are likely to be most relevant to the proposed Rail Baltica line.

Information systems STOKIS, AGAT and OPKIS have been installed in commerce stations. These systems give a full view of the location of rolling stock and operations performed. Information system KROVINYS (Cargo) is in operation for handling shipping documents for freight transported on Lithuanian railways, as well as for accounting control.

In order to develop intermodal freight transport in Lithuania, public logistics centres are being founded in Vilnius (nearby Vaidotai Marshalling Yard) and Kaunas. The EU financial assistance of the Cohesion Fund will be used for creating modern overland intermodal terminals, at these locations.

The graphs below, taken from Latvian Railways, show the makeup of current rail freight traffic:

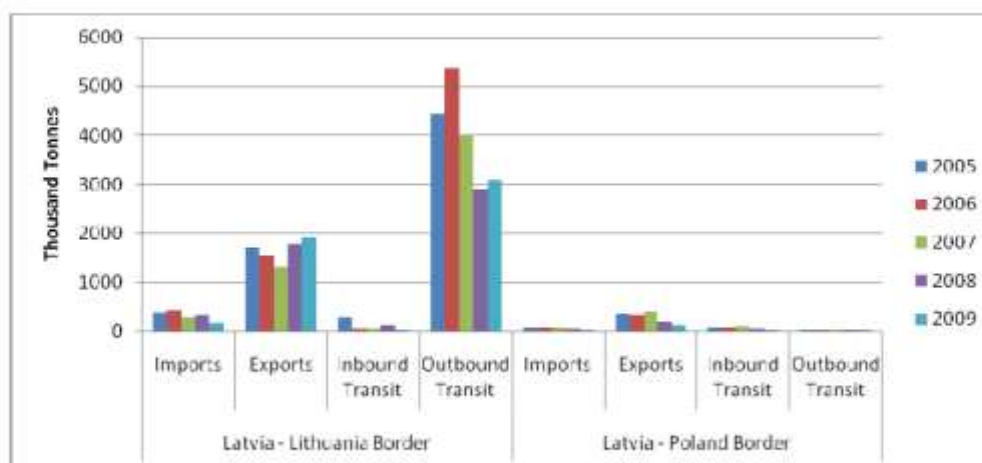
Figure 64 - B.64 - Lithuanian Rail Freight Traffic Makeup, 2009



It can be seen that, compared to the other countries imports and exports play a much greater role in rail freight traffic.

In terms of traffic through the north – south borders currently the main large flows are outbound transit and exports via the Latvia border. Through flows north – south currently equate to 12,000 tonnes from Poland to Latvia in 2009, down from 41,000 tonnes in 2008 with very little in the return direction.

Figure 65 - B.65- Current Cross Border Flows, Detailed Information Provided by Lithuanian Railways, 2005 - 2009



A large proportion of current Lithuanian rail freight is dominated by 6 major customers. These companies make up more than half of imports, exports and local traffic. It is expected that most will remain using existing lines; however, Rail Baltica could open up new destinations for the products of these companies.

Table 78 - B.78- Key Current Rail Freight Customers in Lithuania

	% Share of Tonnage		
	Local	Exports	Imports
Mazeikiu Nafta	17.2	69.8	26.6
Akmenes Cementas	5.4	2.8	-
Achema	25.1	0.7	1.3
Milsa	5.5	1.5	8.2
Lifosa	6.1	-	17.2
Dolomitas	7.2	1.2	-

Rail Freight Punctuality

Rail freight punctuality levels were provided by Lithuanian Railways for September 2009 – August 2010. On average a punctuality of 97.1% was achieved with a range between 96.2% and 98.3%. It is unclear, however, exactly how it is determined whether or not a train is 'to schedule'.

Rail Freight Pricing

Tariffs for carrying of freight are not regulated by governmental institutions and are set by Lithuanian Railways. The tariff book for import, export and local transportation of freight is publically available in Lithuanian. According to the aforementioned tariff book, the calculation of the tariff is mainly based on the distance, weight and type of carriage. Tariffs are provided in Euros and in Lithuanian Litas.

Table 79 - B.79- Lithuanian Rail Freight Pricing: Container Tariffs in Euros, Updated March 2010

Distance km	20' Container	40' Container	45' Container
51 - 60	120	241	349
101 - 110	141	282	409
151 - 160	161	322	467
201 - 210	182	362	525
251 - 260	202	403	584
301 - 310	222	444	644
351 - 360	242	485	703
401 - 410	262	525	762
451 - 460	283	566	820
501 - 510	303	606	879
551 - 560	324	647	939
591 - 600	340	680	985

Table 80 - B.80- Lithuanian Rail Freight Pricing: Bulk Freight: Multipurpose Wagon Tariffs in Euros, Updated March 2010

Distance km	Weight in Tonnes					
	11 - 15	21 - 25	31 - 35	41 - 45	51 - 55	61 - 65
51 - 60	85	108	131	145	150	155
101 - 110	115	139	163	178	186	192
151 - 160	145	171	196	212	221	230
201 - 210	175	202	229	247	257	266
251 - 260	206	233	261	281	292	303
301 - 310	235	265	294	315	328	341
351 - 360	265	295	327	350	363	377
401 - 410	295	327	359	383	399	414
451 - 460	325	358	392	417	434	452
501 - 510	354	390	425	451	470	489
551 - 560	384	420	458	485	505	525
591 - 600	408	446	484	513	534	555

For a typical journey prices per km are as follows:

Table 81 - B.81- Lithuanian Rail Freight Pricing: Price in Euros: Published Tariff for an Average Lorry Load

Journey Type	Standard Tariff	
	Domestic	Import / Export
Distance Assumed	91km	351km
Bulk (universal rolling stock, 18 tonne lorry load carried in 1/2 wagon)	0.92	0.49
40' Container	3.00	1.38
20' Container	1.51	0.69

These prices are more expensive for short distance journeys than tariffs in Latvia and Estonia, however long distance journeys are cheaper than the published tariff for Estonia (although more expensive for 40' containers than the quoted price for Estonia), bulk tariffs are cheaper than Latvia for long distance journeys, however, container tariffs are more expensive.

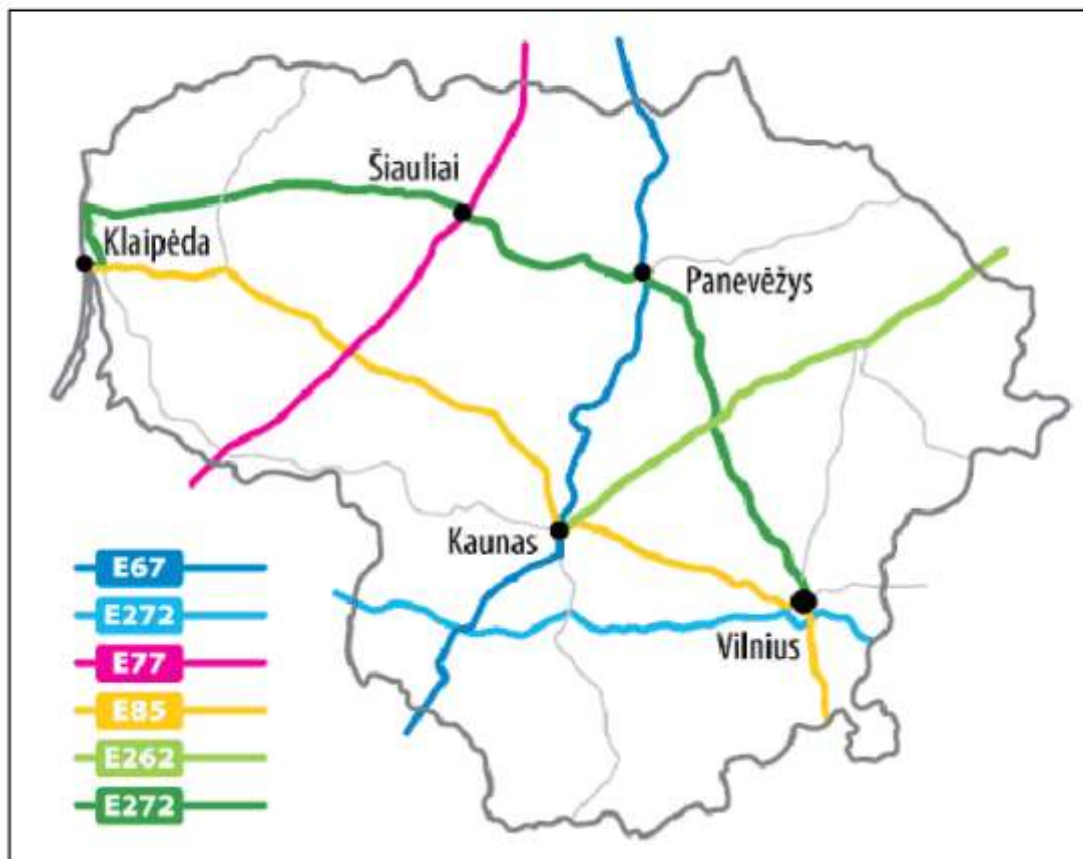
Special rates are applied for container transport by the "Viking" train along the Draugystė (Klaipėda) – Koliadichi (Minsk) – Iljichiovsk (Odessa) route and back. The cost was 500USD for a 20' container in 2009 and 840 for a 40' according to Klaipėda port information. This is approximately €0.42 per km for a 40' and €0.25 for a 20', which is significantly cheaper than rates per km for the longest journeys on Latvian and Estonian railways for 40' containers and is similar to Latvian rates for 20' containers travelling long distance and is also significantly cheaper than current tariffs.

Lithuania Railways were asked to quote for representative journeys, however, they failed to supply a quote to us therefore this information cannot be presented.

Road Network

Lithuania has two key E-Roads linking with Latvia: the E77 from Šiauliai to Riga and the E67 from Panevėžys to Riga. Figure below displays all the routes classified as E-Roads within Lithuania together with the other main highway routes.

Figure 66 - B.66 - Lithuanian Road Network



New Development Plans

There are planned reconstruction works on the road Riga–Šiauliai–Tauragė–Kaliningrad (road E77) which will improve transport conditions for local and transit transport travelling from Latvia to Poland and Western Europe. Although this is north – South direction its influence to Rail Baltica is not significant, since most of the road users use the E67 road to get to Poland.

Key Road Passenger Routes (Car)

Table 82 - B.82- Lithuanian Road Quality Metrics (Car) – Passengers, Detailed Information

	Highway description	Approximate Distance (Km)	Traffic volume 2-way (AADT)	Average Journey Time (hh:mm)	Average Speed (kph)
Kaunas – Vilnius	A1; dual carriageway out of Kaunas for 102km to Vilnius	102	14,586	01:07	90
Vilnius – Kaunas					
Kaunas – Šiauliai	A1; dual carriageway out of Kaunas 111km to A12, then A12 to Šiauliai is single carriageway	176	2,936	02:04	85
Šiauliai – Kaunas					

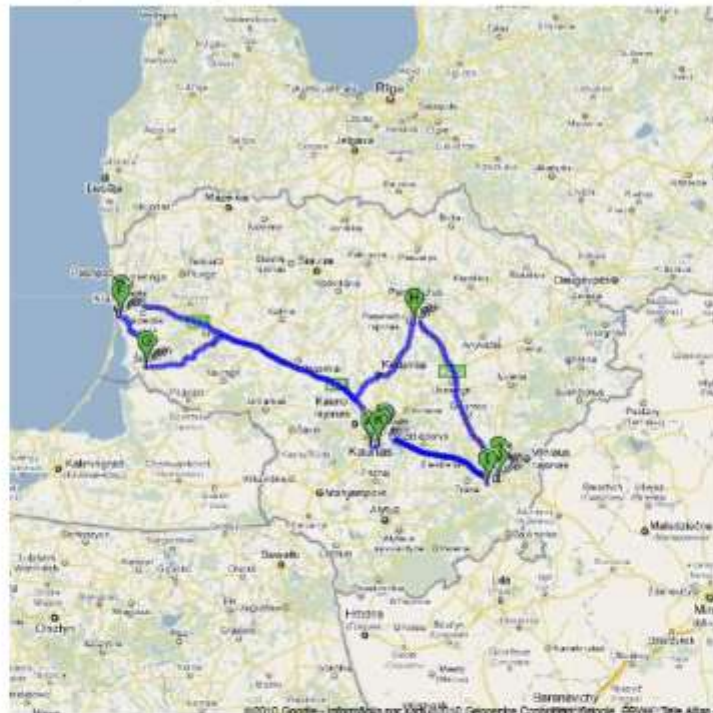
Table 83 - B.83- Lithuanian Road Quality Metrics (Car) – Passengers, Route Scoring

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)	Mode Share	
L I T H U A N I A							
Kaunas-Vilnius	Good	Fair	Anytime	Fair	90	73%	8.55
Score	4	3	5	3	3	5	3
Kaunas-Siauliai	Fair	Fair	Anytime	Fair	85	81%	8.55
Score	3	3	5	3	3	5	3

Current Logistics Facilities

The following Figure shows the location of key Lithuanian logistics facilities. The red and yellow routing options are likely to be more effective in picking up local traffic (potential for some from the Panevezys logistics terminal). The green / orange lines are likely to be more convenient for any potential transshipment of freight from Klaipeda, however, this transshipment is unlikely as gauge change would be required. There is a good sized cluster of facilities at Kaunas indicating that this is indeed the ideal site for an intermodal terminal in Lithuania and is likely to pick up a good amount of traffic. At approximately 100km away traffic from Vilnius would only be likely to use the line for very long distance journeys (i.e. potentially to Germany).

Figure 67 - B.67 - Location of Key Lithuanian Logistics Facilities



Road Freight Charging

The Euro vignette system is already implemented in Lithuania with charges as follows on all main roads:

Table 84 - B.84- Lithuanian Road Charges

Vehicle	Amount of charge (LTL)			
	Daily rate	Weekly (7-day) rate	Monthly (30-day) rate	Annual rate
12 – 40T	20	90	180	1600
Over 40T	20	90	250	1900

The proportion of articulated HGVs registered out of total HGVs has risen from 10% in 2000 to 14% in 2009 as Lithuanian fleets adopt more modern technology.

Road Freight Prices

As noted previously for road freight traffic quotes were sought from a variety of Eastern European hauliers which provided an average freight fee of between €0.9 and €1.15 per km. It can be seen that the rail freight price is lower than this for bulk traffics but higher for the majority of container journeys.

Coach Network

Like Estonia and Latvia there is an extensive intercity coach network in Lithuania competing with existing rail services.

Key Coach Routes

Table 85 - B.85- Lithuanian Road Quality Metrics (Coach) – Passengers, Detailed Information

	Approximate Distance (Km)	Service Frequency (coaches per day)	Service Volume (2-way) passengers per day	Average Journey Time (hh:mm)	Economy Single Fare (Euros)	Price per 100 Km (Euros)
Kaunas – Vilnius	102	59	2,784	01:37	5.23	5.13
Kaunas – Šiauliai	176	23	579	03:03	9.63	5.47

Table 86 - B.86- Lithuanian Road Quality Metrics (Car) – Passengers, Route Scoring

	Quality		Service			Mode Share	Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed (kph)		
L I T H U A N I A							
Kaunas-Vilnius	Fair	Fair	59 per day	Fair	63	14%	5.13
Score	3	3	4	3	2	3	3
Kaunas-Siauliai	Fair	Fair	23 per day	Fair	58	16%	5.47
Score	3	3	3	3	1	3	3

Air Passenger Network

There are four international airports in Lithuania at: Vilnius, Kaunas, Palanga and Siauliai. Vilnius is the largest of these in terms of air passenger traffic, handling 1.3 million passengers in 2009. Over the first seven months of 2010, Lithuanian airports served 1.3 million passengers, an increase of 22.6 percent year-on-year. Following Figure illustrates the principal air routes available from Lithuanian airports for the Baltic region.

Figure 68 - B.68 - Lithuanian Air Passenger Network



New Air Development Plans

On February, 2010 Irish low-cost airline Ryanair decided to invest 140 million dollars in a new hub in the country's second-largest city, Kaunas. Riga airport also had been hoping to attract Ryanair to Latvia, but the company has announced that Kaunas is their preferred location for a regional hub. Having offered new routes to European cities from Kaunas airport, Ryanair already has attracted more passengers to Kaunas airport. In H1 2010, the airport services 314,041 passengers, an increase of 57.5% compared with the respective period last year, when the figure reached 199,386 passengers. In June 2010 compared with June 2009, the number of passengers increased from 38,712 to 80,808.

Key Air Passenger Routes

There are no internal flights along the Rail Baltica Corridor within Lithuania.

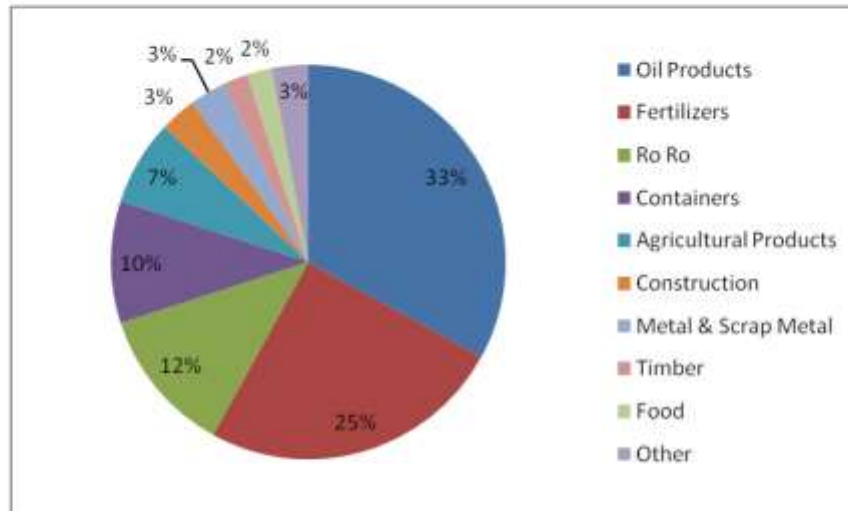
Sea Freight Volumes and Facilities

There are two major ports in Lithuania – Klaipeda and Butinge. Klaipeda accounted for 77% of freight tonnage in 2009 or 28 million tonnes. The vast majority of freight handled at Butinge is liquid bulk from Russia (95% in 2008), therefore this port has not been analysed in further detail.

As with the other Baltic ports Klaipeda port is situated in a Free Economic Zone (412 ha). The port has 26 terminals currently in operation including 2 terminals for containers and 2 for ro ro. The depth of the entrance channel is 15 meters. The depth of the port navigation channel is between 13 and 14.5 meters. Therefore, the port can accept large-tonnage vessels: dry-cargo vessels up to 80,000 DWT, and tankers up to 150,000 DWT.

Oil products, fertilizers, Ro Ro and containers form the main traffics through Klaipeda port. Between 2008 and 2009 increases were seen in fertilizer traffic (2%), whilst decreases were seen in both containers and ro ro traffic (-11% and -19%).

Figure 69 - B.69 - Cargo Structure in Klaipeda Port, 2009 (% of Tonnes)



In terms of port hinterland the majority of traffic through the ports comes in by land transport from either Lithuania (61.8%), Belarus or Russia. In the year 2009 transit cargo flow via Klaipeda port decreased by 11% and Lithuanian cargo decreased by 4% compared to 2008.

Table 87 - B.87- Klaipeda Port Hinterland, 2009

	Thousand Tonnes in 2009	% of Total
Lithuanian Cargo	17,213	61.8%
Transit Cargo including:	10,653	38.2%
Belarus	6,618	23.7%
Russia	3,305	11.9%
Kazakhstan	165	0.6%
Ukraine	244	0.9%
Latvia	197	0.7%
Estonia	17	0.1%
Other countries	108	0.4%

Onward transport by sea is carried out to a wide variety of journeys with the key destinations of interest being Germany (14.1% of all sea freight tonnage) and Poland (4.8% of all sea freight tonnage).

Table 88 - B.88 - Klaipėda Port Main Countries for Trading by Sea, 2009

	Country	Thousand Tonnes in 2009	% Of Tonnage
1	Germany	3,932.8	14.1
2	Holland	3,531.3	12.7
3	Poland	1,330.2	4.8
4	Russia	1,231.9	4.4
5	Belgium	1,121.6	4.0
6	France	983.8	3.5
7	Latvia	929.9	3.3
8	Denmark	919.0	3.3
9	Great Britain	806.5	2.9
10	Estonia	731.4	2.6
11	Norway	626.1	2.2
12	Spain	604.0	2.2
13	Finland	311.0	1.1
14	Turkey	234.4	0.8

In the year 2009 Klaipėda port handled 247,977 TEU containers, 34% less than in the year 2008. Handling was split 60:40 between Klaipėda container terminal Ltd and Joint-Stock Stevedoring Company Klaipėdos Smeltė. Klaipėda Container Terminal has a capacity of 450,000 TEU per year. Railway and is rail connected with 2 lines in the Ro-Ro terminal and 4 lines in the Container Terminal. Klaipėdos Smeltė Container Terminal is capable of handling 200,000 TEUs per year. Volumes of both containers and Ro Ro have picked up in 2010 with Klaipėda Container Terminal (KCT) seeing an increase of 28% in container volumes for Jan – Aug 2010 compared to Jan – Aug 2009 and Ro Ro volumes at the terminal have doubled with the opening of the KESS ro-ro service in April 2010 which transports vehicles and other cargo from Western Europe.

The port of Klaipėda was second only to Saint Petersburg in terms of container volumes in 2009 / 2010 within the Eastern Baltic region.

Table 89 - B.89- Klaipėda Port Container Volumes Compared to Other Ports in the Region, 2009 and 2010

Port	Container TEUs	
	2009 01-05	2010 01-05
Saint Petersburg	493,288	719,370
Klaipėda	105,029	114,801
Riga	73,772	94,157
Tallinn	57,829	61,576
Ventspils	60	0
Liepāja	300	241

The key overseas destinations for containers to/from Klaipėda are Germany (35% of TEUs) and Poland (17% of TEUs).

In 2010 – 2011 both KCT terminals will be further developed. A new stage of dredging the water territory in Maiku Bay will start in the near future. The terminal quay will be extended. After completion of works the quay length in the container terminal will be 850 m, draft - 11.5 m. After completion of these development plans terminal capacity will be extended to 600 000 TEU per year.

In the first half-year of 2010 the bulk cargo facility will be reconstructed to increase its productivity and a new warehouse for storage of bulk cargo will be constructed in the vicinity.

1.3.5 Cross-Border Passenger Travel

The tables below provide a summary of current transport provision for key cross border passenger movements.

Table 90 - B.90- Cross Border Rail Current Passenger Transport Provision Summary

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed	Mode Share	
E S T O N I A							
Tallinn-Riga	-	-	-	-	-	-	-
Tallinn – Kaunas	-	-	-	-	-	-	-
Tallinn – Vilnius	-	-	-	-	-	-	-
Tallinn - Warsaw	-	-	-	-	-	-	-
L A T V I A							
Riga-Tallinn	-	-	-	-	-	-	-
Riga-Vilnius	-	-	-	-	-	-	-
Riga-Kaunas	-	-	-	-	-	-	-
Riga – Warsaw	-	-	-	-	-	-	-
L I T H U A N I A							
Vilnius-Riga	-	-	-	-	-	-	-
Vilnius-Warsaw	Average	Average	1 day train and 1 night train	Unknown	58 kph	5%	€5.00
Vilnius – Tallinn	-	-	-	-	-	-	-
Kaunas-Riga	-	-	-	-	-	-	-
Kaunas-Warsaw	Average	Average	1 day train and 1 night train	Unknown	61 kph	2%	€5.76
Kaunas - Tallinn	-	-	-	-	-	-	-

Table 91 - B.91- Cross Border Road (Car) Current Passenger Transport Provision Summary

	Quality		Frequency	Service			Price per 100 km
	Comfort	Facilities		Reliability	Speed	Mode Share	
E S T O N I A							
Tallinn-Riga	E67	Average	n/a	Through Parnu	70 kph	63%	€8.55
Tallinn – Kaunas	E67	Average	n/a	Through Parnu, Riga and Panevezys ring roads	74 kph	86%	€8.55
Tallinn – Vilnius	E67/E272	Average	n/a	Through Parnu Riga, Panevezys and Kaunas ring roads	78 kph	43%	€8.55
Tallinn - Warsaw	E67	Few	n/a	Through Parnu Riga, Panevezys and Kaunas ring roads	71 kph	19%	€8.55
L A T V I A							
Riga-Tallinn	E67	Average	n/a	Through Parnu	70 kph	63%	€8.55
Riga-Vilnius	E67/E272	Few	n/a	Through Panevezys and Kaunas ring roads	82 kph	40%	€8.55
Riga-Kaunas	E67	Few	n/a	Through Panevezys ring road	72 kph	61%	€8.55
Riga – Warsaw	E67	Few	n/a	Through Panevezys and Kaunas ring roads	70 kph	27%	€8.55
L I T H U A N I A							
Vilnius-Riga	E67/E272	Few	n/a	Through Panevezys and Kaunas ring roads	82 kph	40%	€8.55
Vilnius-Warsaw	A4/132/16/E67	Few	n/a	Through a few small towns in Lithuania and towns in Poland	67 kph	24%	€8.55
Vilnius – Tallinn	E67/E272	Few	n/a	Through Parnu Riga, Panevezys and Kaunas ring roads	78 kph	43%	€8.55
Kaunas-Riga	E67	Few	n/a	Through Panevezys ring road	72 kph	61%	€8.55
Kaunas-Warsaw	E67	Few	n/a	Through towns in Poland	65 kph	89%	€8.55
Kaunas – Tallinn	E67	Average	n/a	Through Parnu, Siauliai	74 kph	86%	€8.55

Table 92 - B.92- Cross Border Road (Coach) Current Passenger Transport Provision Summary

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed	Mode Share	
E S T O N I A							
Tallinn-Riga	Average	Average	16 per day	Through Parnu	70 kph	16%	€4.99
Tallinn – Kaunas	Average	Average	1 per day	Through Parnu, Riga and Panevezys	61 kph	14%	€4.83
Tallinn – Vilnius	-	-	-	-	-	-	-
Tallinn - Warsaw	-	-	-	-	-	-	-
L A T V I A							
Riga-Tallinn	Average	Average	16 per day	Through Parnu	70 kph	16%	€4.99
Riga-Vilnius	Average	Average	7 per day	Through Panevezys and Kaunas	66 kph	25%	€5.75
Riga-Kaunas	Average	Average	2 per day	Through Panevezys	61 kph	25%	€9.12
Riga - Warsaw	Average	Average	2 per day	Through Panevezys and Kaunas	51 kph	4%	€7.10
L I T H U A N I A							
Vilnius-Riga	Average	Average	7 per day	Through Panevezys and Kaunas	66 kph	23%	€5.75
Vilnius-Warsaw	Average	Average	1 or 2 every 2 days	Through a few small towns in Lithuania and towns in Poland	53 kph	22%	€8.02
Vilnius - Tallinn	-	-	-	-	-	-	-
Kaunas-Riga	Average	Average	1 per day	Through Panevezys	61 kph	23%	€6.01
Kaunas-Warsaw	Average	Average	1 or 2 every 2 days	Through towns in Poland	57 kph	9%	€9.22
Kaunas - Tallinn	Average	Average	1 per day	Through Parnu, Riga and Panevezys	61 kph	12%	€5.03

Table 93 - B.93- Cross Border Air Current Passenger Transport Provision Summary

	Quality		Service				Price per 100 km
	Comfort	Facilities	Frequency	Reliability	Speed	Mode Share	
E S T O N I A							
Tallinn-Riga	Good	Good	7 per day	Assumed reliable	107 kph	21%	€30.20
Tallinn – Kaunas	-	-	-	-	-	-	-
Tallinn – Vilnius	Good	Good	2 per day	Assumed reliable	90 kph	47%	€34.85
Tallinn - Warsaw	-	-	-	-	-	-	-
L A T V I A							
Riga-Tallinn	Good	Good	7 per day	Assumed reliable	107 kph	21%	€28.09
Riga-Vilnius	Good	Good	5 per day	Assumed reliable	100 kph	35%	€41.22
Riga-Kaunas	Good	Good	1 per day	Assumed reliable	95 kph	14%	€48.06
Riga – Warsaw	Good	Good	1 per day	Assumed reliable	90 kph	69%	-
L I T H U A N I A							
Vilnius-Riga	Good	Good	7 per day	Assumed reliable	100 kph	35%	€32.89
Vilnius-Warsaw	Good	Good	2 per day	Assumed reliable	114 kph	45%	€30.97
Vilnius - Tallinn	Good	Good	2 per day	Assumed reliable	90 kph	47%	€34.85
Kaunas-Riga	Good	Good	1 per day	Assumed reliable	95 kph	14%	€51.92
Kaunas-Warsaw	Good	Good	1 per day	Assumed reliable	101 kph	0%	€41.20
Kaunas – Tallinn	-	-	-	-	-	-	-

1.4 Freight Transit Traffic

As can be seen from the information on Lithuania, Latvia and Estonia freight volumes above a substantial proportion of traffic for each of the 3 countries is transit traffic, making this an important market for Rail Baltica to compete within.

Table 94 - B.94 - 2008 Tonnages for Major North – South Freight Transit Routes

Origin	Destination	Non Bulk	Dry Bulk / General Cargo	Modal Split Dry Bulk / General Cargo			Modal Split Non Bulk		
		Current Volumes (000 Tonnes pa)	Current Volumes (000 Tonnes pa)	Road	Rail	Sea	Road	Rail	Sea
Finland	Germany	6629	3270	1%	0%	99%	0%	0%	100%
Finland	Italy	0	809	0%	0%	100%			
Finland	Poland	328	358	32%	0%	68%	26%	0%	74%
Germany	Finland	6193	1471	1%	0%	99%	0%	0%	100%
Germany	Russia - Gulf of Finland	6392	290	0%	0%	100%	0%	0%	100%
Russia - Gulf of Finland	Germany	3200	2272	0%	0%	100%	0%	0%	100%
Russia - Gulf of Finland	Poland	76	132	100%	0%	0%	100%	0%	0%
Poland	Finland	437	405	27%	0%	73%	33%	0%	67%
Italy	Finland	0	43	0%	0%	100%			
Poland	Russia - Gulf of Finland	633	1092	100%	0%	0%	100%	0%	0%

Sources: Eurostat for road and sea freight data, rail freight data from Eesti Raudtee Annual Report 2008, detailed information provided by the Lithuanian government and detailed rail freight data provided by LDZ

As can be seen above the main transit traffic origin and destinations are:

- Finland - Poland and vice versa
- Finland - Germany and vice versa
- Germany - St Petersburg and vice versa
- Poland - St Petersburg and vice versa

The majority of the transit journeys shown are carried out by sea transport currently, with some transit traffic also carried out by road. Eurostat information did not provide any tonnages for sea traffic from Poland to Russia and vice versa, however, it is known that there is some traffic from Gdynia and Gdansk to St Petersburg, therefore volumes could be higher.

Transport to / from Finland will require a sea freight leg from Tallinn and then onward transportation by either road or rail as would have been the case with the original transportation via either ro ro ferry or shipping.

Road Network and Quality, Key Import, Export and Transit Countries

There are 3 countries where Rail Baltica could provide competition for transit traffic to traffic currently using the road network: Germany, Poland and Russia (St Petersburg area).

As a densely populated country in a central location in Europe and with a developed economy, Germany has a dense and modern transportation infrastructure. The volume of traffic in Germany, especially goods transportation, is at a very high level due to its central location in Europe. In the past few decades, much of the freight traffic shifted from rail to road, which led the Federal Government to introduce a motor toll for trucks in 2005. Individual road usage increased resulting in a relatively high traffic density to other nations. A further increase of traffic is expected in the future. Sunday driving bans are in force for HGV traffic on many roads in Germany and tolls are charged for use of the motorways.

There are few motorways in Poland and none on the route through from Lithuania. The directly competing route through Poland to the border is the E67. Information provided by trade associations suggests that there are no major problems with waiting times at the Polish border.

Transport to St Petersburg from Estonia is predominantly through the Narva border station leading onto the E20 and then M11 to Saint Petersburg. Road quality in Russia is generally significantly lower than in Western Europe and road safety in Russia is poor with road accident deaths per million population higher than all countries in the G8 and the other BRIC countries. Load security is also a key concern for transport through Russia, which according to Freightwatch has one of the highest levels of cargo theft in the Europe area. While cargo theft has been a known problem in Russia for some time, Eurowatch and other organizations are now beginning to find verifiable reports of theft activity, which almost exclusively involves the use of automatic assault rifles and violence by the perpetrators. Information from trade associations suggests that border crossings with Russia can involve long delays for freight traffic, ELEA stated queues are usually approx 3 days and that only 70 trucks per day can cross the border. ELEA also stated that this problem does not exist for rail, which might prove a great attraction for increased rail use to St Petersburg.

In the recent years certain sections of the regional M-11 motor road Ust-Luga — Kotly — Kerstovo to the intersection with the Narva Road from Saint Petersburg to Tallinn have been repaired and widened with the money of Leningrad region and the allocated money of the Federal road fund.

From 1 January 2007 the M-11 motor-road was included in the list of federal roads and placed on the books of the Ministry of transport.

The governors of Leningrad region and Novgorod region suggested building a new federal roadway of Ust-Luga — Veliky Novgorod: to extend the M-11 motor-road from Tallinskoye highway to the highway near Novgorod. The road location has been identified and the feasibility study of the new roadway construction is under way.

Rail Network and Quality, Key Import, Export and Transit Countries

Poland is served by an extensive network of railways. In most cities the main railway station is located near a city centre and is well connected to the local transportation system. The infrastructure is operated by PKP PLK (PKP-Polskie Linie Kolejowe: PKP-Polish Rail Lines), part of state-run PKP Group. PKP Cargo provides the majority of cargo transport services. The rail network is very dense in western and northern Poland, while the eastern part of the country is less developed. Poland uses 1,435 mm (standard gauge) for its railways, except for Linia Hutnicza Szerokotorowa and a few very short stretches near border crossings. Linia Hutnicza Szerokotorowa in Sławków is the longest broad gauge railway line in Poland. The line runs on a single track for almost 400 km from the Polish-Ukrainian border, crossing it just east of Hrubieszów. It is the westernmost broad gauge railway line in Europe that is connected to the broad gauge rail system of the countries of the former Soviet Union.

Key terminals in Poland are:

- Gdańsk/Tczew: Zajęczkowo Tczewskie
- Szczecin: Szczecin Port Centralny
- Toruń: Toruń Towarowy
- Warsaw: Warszawa Praga
- Małaszewicze Południowa South
- Poznań: Poznań Franowo
- Łódź Olechów
- Lublin Tatarski
- Skarżysko-Kamienna
- Kielce Herbskie
- Wrocław: Wrocław Brochów
- Tarnowskie Góry/Katowice: Tarnowskie Góry Rozrządowa
- Katowice: Łazy, Jaworzno Szczakowa, Zabrzeg Chamołesie
- Kraków: Kraków Prokocim Towarowy
- Przemyśl: Medyka Towarowa

The table below shows international import, export and transit tariffs for Poland along with the rate in Euros per km. Container freight rates in Poland are determined according to distance, container length and whether the weight is over or under 22 tonnes (a standard coefficient is applied). For international transport 40' containers cost 82% more to ship than 20' containers. These rates are generally more expensive than those in the Baltic countries. Different rates are provided for bulk transport to/from Germany, Ukraine and some other countries not related to Rail Baltica.

Table 95 - B.95- Polish Rail Freight Prices: Standard International Container Transport Prices, January 2010

km	Container Rate 40' and 45' under 22T	Container Rate 20' under 22T	Euros per km - 40'	Euros per km - 20'
300	507.18	278.95	1.69	0.93
350	572.05	314.63	1.63	0.90
400	646.41	355.53	1.62	0.89
500	781.03	429.57	1.56	0.86
600	913.08	502.19	1.52	0.84
700	1043.33	573.83	1.49	0.82
800	1172.56	644.91	1.47	0.81
900	1307.44	719.09	1.45	0.80
1000	1438.46	791.15	1.44	0.79
1100	1570.77	863.92	1.43	0.79
1200	1702.05	936.13	1.42	0.78

Table 96 - B.96- Polish Rail Freight Prices: Standard International Bulk Freight Transport Prices, January 2010

km	Euros per 2 axle wagon	per lorry km (assuming 2 lorry loads in a wagon)	per lorry km (assuming 3 lorry loads in a wagon)
300	670.51	1.12	0.75
350	756.92	1.08	0.72
400	855.13	1.07	0.71
500	1033.08	1.03	0.69
600	1208.21	1.01	0.67
700	1380.77	0.99	0.66
800	1551.28	0.97	0.65
900	1729.23	0.96	0.64
1000	1903.59	0.95	0.63
1100	2078.72	0.94	0.63
1200	2252.31	0.94	0.63

Germany has a highly modernized rail freight system with the majority of cargo services being provided by DB Schenker. Germany has a vast network of intermodal terminals with over 140 different terminal operations currently listed by the Association of German Transport - Verband Deutscher Verkehrsunternehmen covering the entire German network. This means that transit and import / export traffic by rail to/from Germany is likely to be a very competitive market.

On 26 May 2010 DB Schenker sent out a press release stating that they will be setting up a road – rail integrated service with a shipment tracking option on the North-South corridor through the country organizations of Finland, Sweden and Norway via central Europe down to Italy and vice versa. For this purpose, they state that the company's intermodal operating centre, which is headquartered in Zürich, Switzerland, will operate around 4,000 block trains a year, primarily using its dedicated rolling stock, providing regular scheduled services several times a week on fixed routes. An extension of the service to the West is being prepared. They state that the solution is particularly suited to customers shipping heavy consignments such as paper, white goods, beverages and furniture. This service could either utilise Rail Baltica once it is constructed or prove a strong competitor to Rail Baltica traffic.

Russian Railways (First Freight) carries out all rail transportation in Russia. The Russian system is 1520mm gauge, which is not compatible with the proposed Rail Baltica line. Information provided by Riga University indicates that gauge transfer can be carried out in 2 hours if required. The relevant rail freight stations for Rail Baltica are Ust Luga and St Petersburg.

Russian rail freight has been hard hit by the recession and Business Monitor International's latest analysis (10.09.2010) suggests that the country's economy and the rail freight sector are not likely to return to pre-crisis levels before 2012. Growth in rail freight, which makes up around 85% of Russia's transportation, is expected to continue as the country recovers from recession. Moscow is still seeking membership of the WTO, which if achieved would be a clear positive for the shipping sector; however, BMI believes membership will not be achieved before 2012.

In April 2010 Russian Railways (RZD OJSC), together with the transport authorities in Austria, Slovakia and Ukraine have signed an agreement for the construction of a broad-gauge (1520mm) railway line between Kosice (Slovakia) and Vienna (Austria). The railway project will connect the rail network of Central Europe with the Trans-Siberian network. The implementation of this project will bring transit traffic on the Asia - Russia - Central Europe route and help boost the competitiveness of rail transport compared with shipments by sea or road transport. The new line will cut rail journey times from the Far East to Europe to 14 days, around half that of cheaper maritime transport and thus saving working capital on shipments.

This is a direct competitor to Rail Baltica and will likely rule out any traffic using Rail Baltica line from Austria and Slovakia as it provides a more direct route which can carry longer and heavier trains. The line is also likely to be used for transport to/from Asia via Turkey, making it unlikely that this traffic would use Rail Baltica.

According to estimates, the transport volume on the Kosice – Bratislava line could reach 23.7 million tonnes by 2025, and 18.5 million tonnes on the Bratislava – Vienna line. The main westwards traffic will be containers, iron ore and metals, with containers taking European goods east to the 1,520 mm gauge network. The planned route to Europe will carry both containers and raw materials and the reverse route will carry containers. According to preliminary estimates, the cost of the project could exceed €4.7 billion.

Business plan development and design work will be undertaken in 2011-13, with construction scheduled for 2013-15 and commercial services from 2016.

Sea Freight Quality and Services for Key Import, Export and Transit Countries

The main ports of interest, outside of the Baltics, to Rail Baltica are:

1. St Petersburg
2. Ust Luga
3. Gdynia
4. Gdansk
5. Helsinki
6. Rauma
7. Sassnitz
8. Bremerhaven
9. Hamburg
10. Kiel
11. Lubeck
12. Travemunde
13. Rostock

These represent ports which are likely to either compete with the new line or provide services which could use the new line.

Gdansk

The port of Gdansk handled 19 million tonnes of goods in 2009 (primarily fuels) including 241,000 TEUs of containers.

General cargo is handled in the Inner Port as well as in the Northern Port (DCT). Container handling at the Port of Gdansk is concentrated in the Inner Port at the Szczecinskie Quay operated by the Gdansk Container Terminal (GTK) and at the Deepwater Container Terminal (DCT) situated in the Northern Port.

These terminals operate mainly feeder and short sea shipping services. The Deepwater Container Terminal is designed to accommodate the largest vessels that can enter the Baltic Sea i.e. Postpanamax vessels.

Both GTK and DCT offer a variety of integrated terminal and holder depot operations: a full range of container handling and services, stuffing and stripping, repairs and cleaning, reefer plugs for refrigerated containers.

The Port of Gdansk provides services to Ro/Ro vessels at the quays of the Port Free Zone and at the state-of-the-art Westerplatte Ferry Terminal. A Ro/Ro ramp is also available at the Polferries Terminal operated by the Polish Baltic Shipping Co. offering regular ferry connections to Sweden, and additionally at the Deepwater Container Terminal.

Situated within a short distance of the entrance to the Inner Port, the Port Free Zone operates the handling of motor vehicles from manufacturers from the Far East and European countries. The Port Free Zone facilitates the storage of imported goods free of customs duty and guarantees, quota and tax for an unlimited period of time. Picking up and customs clearance of goods in batches is also available. Registration of goods supplied to and picked up from the Port Free Zone is implemented by means of an IT system.

The Port of Gdansk also offers a comprehensive range of specific cargo operations that require highly specialist handling and storage technologies.

According to the strategy of European Union the Port of Gdansk plays a significant role as a key link in the Trans-European Transport Corridor No. 6 connecting the Nordic countries with Southern and Eastern Europe.

The Port of Gdansk has a very good network of rail connections. In Gdansk there are railway connections with all strategic directions, i.e.: south, west and east. Two rail trunk lines connect Gdansk with the south of Poland through Lodz/ Warsaw to Katowice/ Cracow. Gdansk also has two electrified rail connections with Poznan and Wroclaw, as well as an electrified one - track rail connection with Szczecin and Kaliningrad.

There is a possibility of widening the deep-water part of the port through the construction of new quays on land reclaimed from the sea. The existing potential of its two container terminals (i.e. Gdansk Container Terminal in the Inner Port and Deepwater Container Terminal Gdansk) currently ensures the throughput capacity of 600,000 TEU's and will be further expanded over the coming years. The expansion potential at DCT Gdansk is estimated to reach up to 2 million TEU's.

Table 97 - The Port of Gdansk current services:

Country	Destination	Carrier	Frequency	Cargo type	Agent
FINLAND:	Helsinki	Unifeeder A/S	Twice-weekly	Containers	IMCL
	Kotka	Unifeeder A/S	Twice-weekly	Containers	IMCL
	Rauma	Unifeeder A/S	Weekly	Containers	IMCL
LATVIA:	Riga	Unifeeder A/S	Weekly	Containers	IMCL
LITHUANIA:	Klaipeda	Team Lines	Weekly	Containers	Team Lines
	Klaipeda	Unifeeder A/S	Twice-weekly	Containers	IMCL
RUSSIA:	St Petersburg	Maersk Line	Twice-weekly	Containers	Maersk Polska

Gdynia

13.3 million tonnes of goods were handled at Gdynia port in 2009 (primarily general cargo) including 378,000 TEUS on container traffic. Information on the port website shows an assumption that in 2010 the total cargo handling in Gdynia will increase over the previous year by 10-15%. The port has a depth of 14 metres at the main entrance.

With a current annual handling capacity of some 750.000 TEUs, and a potential capacity of 1.2m TEUs, the Port of Gdynia's Baltic Container Terminal (BCT) is the leading container terminal in Poland and one of the largest in the Baltic region.

Planned investments in railway infrastructure will enable efficient handling of railway wagons on the quays. Analyses and designs will be made within the framework of the Sebtrans-Link Project. Realisation of the above will be carried out in the years between 2004- 2015 and conducted in stages:

- Phase 1 - 2004-2006: main works within the administrative borders of the Port Authority. Estimated cost about 1 million Euro from own sources.
- Phase 2 - 2007-2015: works in the so-called "Międzytorze" area after conducting necessary analyses and obtaining the road construction permissions, with co-finance of EU funds.

Port of Gdynia and Gdynia Container Terminal SA (GCT) today signed an agreement in September 2010 on joint project to build deepwater ship 'position in the Bulgarian Quay in the Port of Gdynia. The new position will have a length of 357 meters and a maximum depth of 15 meters, allowing GCT support vessels with a capacity of over 8,000 TEUs. GCT will continue the expansion of storage yards and invest in new handling equipment, so as to adapt them to the operational requirements. It is planned that the new quay will be put into operation in mid-2012.

In addition in June 2010 Gdynia marshals of seven provinces located along the routes of the Polish part of the Baltic Transport Corridor - Adriatic: Pomorskie, Kujawsko-pomorskie, warmińsko-mazurskie, Mazowieckie, Lodz, Wielkopolska and Silesia have signed a "Letter of Intent on strengthening interregional cooperation to create conditions for the development of Transport Corridor Baltic - Adriatic in Poland. " Corridor Baltic - Adriatic is of great importance for strengthening the position of the Port of

Gdynia to handle cargo trade between Sweden, Norway, Finland and the countries of Central Europe, is also an important transport route for the Baltic Sea, beginning in Gdynia, and ending in Bologna. This is directly in competition with Rail Baltica.

Table 98 - Port of Gdynia services of interest:

Destination	Port	Operator	Agent	Type	Frequency
Finland	Kotka	UPM-Kymmene Seaways	Poseidon Frachtcontor	Ro-ro	weekly
Finland	Rauma	UPM-Kymmene Seaways	Poseidon Frachtcontor	Ro-ro	weekly
Finland	Rauma	Transfennica	Transfennica Polska	Ro-ro	weekly
Finland	Halla	UPM-Kymmene Seaways	Poseidon Frachtcontor	Ro-ro	weekly
Finland	Helsinki	Finnlines	Finnlines Polska	Ro-ro	3/week
Finland	Hamina	Transfennica	Transfennica Polska	Ro-ro	weekly
Finland	Hanko	Transfennica	Transfennica Polska	Ro-ro	weekly
Lithuania	Klaipeda	UNIFEEDER	IMCL	Containers	weekly
Lithuania	Klaipeda	MSC	MSC Poland	Containers	weekly
Russia	St Petersburg	MSC	MSC Poland	Containers	/weekly
Russia	St Petersburg	OOCL	ISS Poland	Containers	2/week

In addition a weekly service from Gdynia to Riga is provided by CMA CGM which takes between 2 and 12 days and costs €1050 for a 40' container.

The Lithuania – Klaipeda service provided by MSC costs €1320 and takes 17 days. Freight link quoted €726 for a 21 hour service to Helsinki (40' container) running 4 times weekly. The Gdynia – St. Petersburg service provided by MSC costs €900 + additional.

Helsinki

The majority of Finnish transport is outsourced – 96% said they outsourced partially and 84% totally in a recent survey of Finnish shippers. In this same survey it was found that only 7% of Finnish companies would use less road for environmental reasons, however, the target industries for Rail Baltica: forest products, chemicals and food were generally more environmentally conscious.

The Port of Helsinki is the largest port in Finland and the second largest throughout the Nordic countries. Ferries sail daily to Stockholm, Sweden and Travemünde, Germany, and almost continuously to Tallinn, Estonia.

Cargo traffic operations are centralized at the Vuosaari Harbour. Vuosaari Harbour offers good links for onward road and railway transport. A new intermodal terminal, estimated to be complete in early 2011, will even further enhance railway traffic to Vuosaari. The maximum annual capacity of the harbour is 1.2 million TEUs and 800,000 trucks and trailers.

The Port of Helsinki has frequent cargo traffic connections among others to Germany, Great Britain, Netherlands, Belgium, Denmark, Sweden and Estonia.

In 2009 a total of 365,000 TEUs of containers were transported through the Port of Helsinki and 432,000 trucks and semi-trailers. These unitized cargos amounted to 8.5 million tonnes and were split relatively evenly between import and export traffic. The Port of Helsinki's market share, of containers handled in all Finnish ports, totalled 33%. The number of containers decreased by nearly 17% in comparison to the previous year and the amount of transported cargo by 19%. The most important destinations of the container traffic from the Port of Helsinki were Hamburg, Rotterdam, Bremerhaven and Antwerp. 2010 has seen a 15% increase in container traffic and 12% increase in Ro Ro compared to 2009, however, bulk traffics have decreased by 37% (figures from Jan – Aug 2010).

Bulk cargo traffic totalled 1.2 million metric tons in 2009. This consisted of coal imported for the use of energy company Helsingin Energia and the imports of oil products for the use of oil companies in Laajasalo as well as Helsingin Energia. Domestic traffic included the transport of sand and construction materials for building projects.

Table 99 - The Port of Helsinki services of interest:

Route	Frequency	Shipping Company
Klaipeda/Helsinki/St Petersburg	Monthly	Containerships
St Petersburg/Helsinki/Teesport	Monthly	Containerships
Tallinn/Helsinki/Tallinn	Daily	Eckerö Line
Helsinki/Gdynia/Helsinki	Every 2 days	Finnlines
Hull/Helsinki/Kotka	Weekly	Finnlines
Wallhamn/Helsinki/Kalundborg	Monthly	Finnlines
Travemünde/Helsinki/Travemünde	daily	Finnlines
Travemünde/Helsinki/Gdynia	Monthly	Finnlines
Kotka/Helsinki/Immingham	Monthly	Finnlines
Århus/Helsinki/Kalundborg	Monthly	Finnlines
Lübeck/Helsinki/Kotka	Monthly	Finnlines
Travemünde/Helsinki/Kotka	Monthly	Finnlines
Amsterdam/Helsinki/Rauma	Monthly	Finnlines
Antwerpen/Helsinki/St Petersburg	Monthly	Finnlines
Malmö/Helsinki/Kalundborg	Monthly	Finnlines
Tallinn/Helsinki/Tallinn	2 x Daily	Navirail
Travemünde/Helsinki/Travemünde	Monthly	Powerline
St Petersburg/Helsinki/St Petersburg	Every 2 days	St. Peter Line
Tallinn/Helsinki/Tallinn	6 x Daily	Tallink Silja
Rostock/Helsinki/Rostock	4 x Weekly	Tallink Silja
Kotka/Helsinki/Bremerhaven	Monthly	Team Lines
Tallinn/Helsinki/Klaipeda	Monthly	Tschudilines
Hamina/Helsinki/Hamburg	Monthly	Unifeeder
Rotterdam/Helsinki/Kotka	Monthly	Unifeeder
Tallinn/Helsinki/Tallinn	2 x Daily	Viking Line

Rauma

The total traffic volume in the Port of Rauma was 5 million tons in 2009, showing a decrease of 29.7% over the previous year. The number of container units (TEU) shipped through Rauma in 2009 was a little over 143,000, which is 16.8 percent less than in 2008. The amount of goods shipped in containers totalled 1.30 million tons (-22.5%). The main commodities are paper for export, round wood and china clay for import and containerised cargoes. The clientele consists primarily of industry, forwarding companies and shipping lines. Traffic levels have increased in 2010 compared to 2009.

Table 100 - The Port of Rauma routes of interest for Rail Baltica.

DESTINATION	CHARTERER	Arrival	Departure	Journey Time	Export / Import	Type
GERMANY						
Rostock / Lubeck	Finnlines	Fri	Sat	2 – 3 days	E / I	Ro -Ro
Lubeck	Finnlines	Mon	Tue	2 – 4 days	E / I	Ro-Ro
Hamburg	Team Lines		Sat	3 days	E / I	Containers
Hamburg	CMA CGM	Thu	Thu	5 days	E / I	Containers
Hamburg	Unifeeder	Fri	Fri		E / I	Containers
Bremerhaven	Team Lines		Sat	3 days	E / I	Containers
Bremerhaven	Unifeeder	Fri	Fri		E / I	Containers
POLAND						
Gdynia	UPM-Kymmene Seaways	Fri	Sat	2 days	E / I	Ro-Ro

Rauma port has a large number of routes to various German ports and one ro-ro route to Poland. Unifeeder quoted €1,205 from Rauma to Riga for a 40' and €975 for a 20'. This service is not listed on the Rauma port website.

Sassnitz

Sassnitz is the largest rail ferry port in Germany and the only port in Europe which can handle broad-gauge Finnish and Russian rail cars. The Port of Sassnitz has become a specialist port for combined rail ferry traffic and is known as "the westernmost cargo station of the Trans-Siberian railway."

3 ferries now operate each week in both directions between Sassnitz and Klaipeda (up from 2 as of July 2010) with a capacity of 103 Russian rail cars carriages. The travel time is 18 hours. Goods are then shipped by rail via Lithuania to all desired recipients in Russia, White Russia, Ukraine, Kazakhstan, Uzbekistan, Turkmenistan, Azerbaijan, Tajikistan, Kyrgyzstan, Mongolia and north China. Ferries to St Petersburg have also increased recently (up to 2 x weekly from a once weekly service as of August 2010).

The port currently has development plans for 2 further ferry berths at the south pier and 3 additional ro-ro berths at the northern port area along with conversion of one berth to a conventional gauge train ferry service.

Table 101 - The Port of Sassnitz current services:

Route	Frequency	Time
Klaipeda-Sassnitz	3 x Weekly both directions	17 – 19 hours
Sassnitz – Ventspils – St Petersburg	2 x Weekly	22¼ hours to Ventspils 30 hours from Ventspils to St Petersburg
St Petersburg – Ventspils – Sassnitz	1 x Weekly	20 hours to Ventspils 19 hours from Ventspils to Sassnitz

Bremerhaven

In 2009 Bremerhaven / Bremen port handled bulk amounted to approximately 63 million tonnes. Bulk traffic accounted for 8 million tons and general cargo accounted for 55 million tons.

With a throughput of almost 52 million tons or approx. 4.6 million TEU in 2009, Stromkaje – the quay beside the Weser in Bremerhaven at Wilhelm Kaisen Container Terminal – is the backbone of the ports and can accommodate the world's largest container ships. Bremerhaven has 14 purpose-built berths for mega-container vessels.

Key trading partners for Bremerhaven in 2009 relevant to Rail Baltica are:

- Finland: 2.3 million tonnes
- Russia: 4.8 million tonnes
- Lithuania: 1.2 million tonnes
- Latvia: 1.2 million tonnes
- Estonia: 570,000 tonnes

571,000 TEUS were transported to/from the Baltic states / CIS from Bremerhaven in 2009 (majority of this to/from Russia) and 169,000 TEUS were transported to/from Finland.

The port of Bremerhaven website states that experts forecast a doubling of container handling capacities in German seaports within the next 10 years and that the "Wilhelm Kaisen" Container Terminal in Bremerhaven will reach its capacity limits in the foreseeable future. From 2011 the JadeWeserPort in Wilhelmshaven, will offer a premium service for mega-container vessels and will be used as a transshipment hub and for the purpose of intensifying feeder and short sea traffic to Scandinavia, Finland, the Baltic states, Russia and Great Britain.

Table 102 - The port of Bremerhaven key services:

Carrier	Frequency	Served ports	Region
Samskip	4 x per week	Helsinki	Finland
Samskip	2 x per week	Kotka	Finland
TransAtlantic	Biweekly	Oulu	Finland
Unifeeder	2 x per week	Helsinki	Finland
Unifeeder	weekly	Kotka	Finland
Unifeeder	weekly	Rauma	Finland
Unifeeder	weekly	Hamina	Finland
MSC	weekly	Bremerhaven - Antwerp - Tallinn - Helsinki - Kotka - Antwerp	Estonia / Finland
Team Lines	weekly	Tallinn	Estonia
Tschudi Lines Baltic Sea	weekly	Muuga	Estonia
Unifeeder	weekly	Tallinn	Estonia
MSC	weekly	Bremerhaven - Kaliningrad - Riga - Norrköping - Antwerp	Latvia
Samskip	2 x per week	Riga	Latvia
Team Lines	weekly	Riga	Latvia
Unifeeder	weekly	Riga	Latvia
MAERSK	weekly	Bremerhaven - Klaipeda	Lithuania
MSC	weekly	Bremerhaven - Klaipeda - Rauma - Antwerp	Lithuania / Finland
MSC	weekly	Bremerhaven - Gdynia - Klaipeda - Antwerp	Lithuania
Samskip	2 x per week	Klaipeda	Lithuania
Team Lines	weekly	Klaipeda	Lithuania
Unifeeder	weekly	Klaipeda	Lithuania
MSC	weekly	Bremerhaven - St.Petersburg - Bremerhaven	Russia
MSC	weekly	Bremerhaven - St.Petersburg - Bremerhaven	Russia
Samskip	4 x per week	St. Petersburg	Russia
Unifeeder	weekly	St. Petersburg	Russia

It should be noted, however, that on further investigation some of these services for example the Samskip service to St Petersburg do not run via Bremerhaven, running instead now from Hamburg. A different Bremerhaven – St Petersburg service was quoted as follows:

- 20' laden €340
- 20' empty €240
- 40' laden €520
- 40' empty €320
- BAF €100 / TEU and Marpol €6 per TEU

The journey takes 5 days from Bremerhaven to St Petersburg and 3 days on the return leg.

Unifeeder quoted €1,164 for a 40' laden container to Helsinki with a journey time of 5 to 6 days.

Hamburg

Hamburg is Germany's biggest seaport handling 110 million tonnes in 2009. On the imports side, the Port of Hamburg recorded a total handling volume of 62.2 million tonnes (~24.2 per cent) in 2009. Exports via Hamburg also declined, compared with the same period of last year, with a total of 48.2 million tons (-17.4 per cent). The key traffics are containers (71 million tonnes) and dry bulk (22 million tonnes). Suction cargo like grain, oilseeds and animal feed play an important role in the Port of Hamburg, both as import and as export cargo. The result of the first half-year 2010 shows an 8 per cent growth of total cargo handling indicating that volumes are starting to increase post recession.

Four large container terminals are available in Hamburg. High-performance handling with short mooring times means that even the biggest container carriers leave the port again after one or two days. Bulk cargo is handled, stored and forwarded in the form of loose, suction, grab and liquid cargo at various terminals in the Port of Hamburg. Neighbouring industrial plants process many raw materials right in Hamburg.

Current container volumes (2009) to key Rail Baltica destinations are:

- St. Petersburg 1,322,778 TEU
- Helsinki 360,470 TEU
- Kotka 340,606 TEU
- Klaipeda 247,982 TEU
- Riga 182,980 TEU
- Rauma 135,040 TEU
- Tallinn 130,939 TEU
- Liepaja 1,039 TEU

Table 103 - The Port of Hamburg key services:

	Port	Shipping Company	Sailings	Cargo
Estonia	Muuga	LPS	weekly	Conv
	Muuga	TECO	weekly	*
	Paldiski	NSA	twice weekly	BB C Conv FCL HL K LCL RoRo (tr.) *
	Paldiski	Stella	weekly	BB C Conv FCL HL RoRo
	Tallinn	APL	weekly	FCL (tr.)
	Tallinn	LPS	weekly	Conv
	Tallinn	SSL	weekly	FCL LCL
	Tallinn	Team Lines	twice weekly	BB C FCL K RF *
	Tallinn	TECO	weekly	C FCL 45 HC
	Tallinn	Unifeeder	weekly	C FCL RF TC 45 HC
Finland	Helsinki	CMA CGM	weekly	FCL
	Helsinki	Containerships	twice weekly	C FCL HL RF 45 HC *
	Helsinki	Hacklin	twice weekly	BB C Conv FCL HL K Helsinki LCL RF TC HC (tr.) *
	Helsinki	Samskip	twice weekly	C FCL 45 HC
	Helsinki	SSL	weekly	FCL LCL
	Helsinki	Stella	4 x weekly	BB C Conv FCL HL RoRo
	Helsinki	Team Lines	twice weekly	BB C FCL K RF *
	Helsinki	Unifeeder	2 x weekly	C FCL RF TC 45 HC
	Rauma	Samskip	weekly	C FCL 45 HC
	Rauma	SSL	weekly	FCL LCL
	Rauma	Team Lines	weekly	BB C FCL K RF *
	Kotka	CMA CGM	weekly	FCL
	Kotka	Samskip	twice weekly	C FCL 45 HC

	Port	Shipping Company	Sailings	Cargo
	Kotka	SSL	weekly	FCL LCL
	Kotka	Stella	4 x weekly	BB C Conv FCL HL RoRo
	Kotka	Team Lines	twice weekly	BB C FCL K RF *
	Kotka	Unifeeder	twice weekly	C FCL RF TC 45 HC
Latvia	Riga	CMA CGM	weekly	FCL
	Riga	Containerships	twice weekly	C FCL HL RF 45 HC *
	Riga	FESCO	weekly	FCL
	Riga	IMCL	weekly	C FCL K LCL RF TC 45 HC (tr.) *
	Riga	Samskip	3 times weekly	C FCL 45 HC
	Riga	SSL	weekly	FCL LCL
	Riga	Stella	every 4-5 weeks	BB C Conv FCL HL RoRo
	Riga	TBL	weekly	BB C FCL K RF TC HC (tr.) *
	Riga	Team Lines	twice weekly	BB C FCL K RF *
	Riga	Unifeeder	weekly	C FCL RF TC 45 HC
Lithuania	Klaipeda	CMA CGM	weekly	FCL
	Klaipeda	Containerships	twice weekly	C FCL HL RF 45 HC *
	Klaipeda	FESCO	weekly	FCL
	Klaipeda	IMCL	weekly	C FCL K LCL RF TC 45 HC (tr.) *
	Klaipeda	LPS	weekly	Conv
	Klaipeda	NSA	twice weekly	BB C Conv FCL HL K LCL RoRo (tr.) *
	Klaipeda	Samskip	twice weekly	C FCL 45 HC
	Klaipeda	SSL	weekly	FCL LCL
	Klaipeda	Stella	every 4-5 weeks	BB C Conv FCL HL RoRo
	Klaipeda	Team Lines	weekly	BB C FCL K RF *
	Klaipeda	Unifeeder	weekly	C FCL RF TC 45 HC
Russia	St. Petersburg	19	twice monthly	BB Conv HL L (tr.) *
	St. Petersburg	AGS	monthly	BB Conv HL
	St. Petersburg	APL	weekly	FCL (tr.)
	St. Petersburg	CMA CGM	weekly	FCL
	St. Petersburg	Containerships	twice weekly	C FCL HL RF 45 HC *
	St. Petersburg	Delta	every 3-4 days	C FCL RF TC HC (tr.) *
	St. Petersburg	ECU-LINE	weekly	LCL
	St. Petersburg	Evergreen	weekly	FCL RF
	St. Petersburg	FESCO	twice weekly	FCL
	St. Petersburg	NSA	twice weekly	BB C Conv FCL HL K LCL RoRo (tr.) *
	St. Petersburg	NSC	weekly	BB C Conv FCL HL
	St. Petersburg	NSC	monthly	BB Conv FCL
	St. Petersburg	OOCL	weekly	C FCL RF 45 HC
	St. Petersburg	Samskip	every 2 weeks	BB Conv
	St. Petersburg	Sea Connect	every 11 days	C Conv FCL RF HC *
	St. Petersburg	SSL	weekly	FCL LCL
	St. Petersburg	SWAN	every 12 days	C FCL RF TC 45 HC *
	St. Petersburg	TBL	weekly	BB C FCL K RF TC HC (tr.) *

	Port	Shipping Company	Sailings	Cargo
	St. Petersburg	Team Lines	weekly	BB C FCL K RF *
	St. Petersburg	Unifeeder	4 x weekly	C FCL RF TC 45 HC
	St. Petersburg	WEC	3 x weekly	FCL

Almost 40 feeder services with over 160 departures per week take care of the North Sea and Baltic Sea regions, 5 new liner services to the Baltic Sea were added in 2009. From the end of August shipping companies Team Lines and APL shifted some of their feeder services into the Baltic from Rotterdam to Hamburg.

Container transport from Hamburg to St Petersburg was quoted at:

- 20' = €675 + BAF €50 and Marpol €10
- 40' = €750 + BAF €100 and Marpol €20

Including terminal handling charges at Hamburg + St Petersburg and ISPS

Container transport from St Petersburg to Hamburg was quoted at:

- 20' laden = €470
- 20' empty = €430,- EUR
- 40' laden = €530,- EUR
- 40' empty = €480,- EUR

Including terminal handling charges at St.Petersburg + Hamburg and ISPS / BAF / Marpol

Sailing schedules indicate a journey time of between 2 and 7 days.

Unifeeder quoted €1,164 for a 40' laden container to Helsinki with a journey time of 5 to 6 days, the same as for Bremerhaven.

Kiel

The seaport of Kiel is one of the most versatile Baltic Sea ports. The port handled 4.9 million tonnes in 2009, 3.2 million of which was ferry cargo (predominantly general cargo).

In 2009 the handling of bulk cargo, containers and conventional breakbulk bound for Lithuania increased while ferry traffic to and from Scandinavia and Russia declined in volume.

Ro Ro traffic to the port has increased 13.4% in the first half of 2010 and a new large RoPax ferry "Lisco Maxima" has been added from Lithuania. In the container transport sector, over 10,000 TEUs were handled in the first half of 2010 – more than twice as many as in the same period of last year.

Table 104 - The seaport of Kiel services of interest:

To	Line	Cargo Type	Frequency	Journey Time
St Petersburg	Neva Bridge	Ro Ro	Weekly	2 days 16 hours
Klaipeda	DFDS Lisco Line	Ro Pax	6 x Weekly	22 – 23 hours

Lubeck / Travemunde

The Port of Lübeck advertises itself as the central logistic hub between Europe's major industrial centres and Scandinavia, Finland, Russia, the Baltic States and Poland. The port handled 24 million tonnes in 2009, 3 million tonnes of which was paper. The port handled 394,000 accompanied trucks, 325 non accompanied trucks and 79,000 containers in 2009. Paper handling increased 16% in the first half of 2010 and containers increased 10%.

Terminal Skandinavienkai is the largest ferry port in Europe and focuses on all types of rolling goods e.g. trucks, trailers, vehicles, railway wagons, swap bodies, containers and passenger car. A rail terminal for combined freight traffic has been in operation since June 2003.

Terminal Nordlandkai: is the Finnish center of the Lübeck ports and in 2008 had a turnover of 3.3 million tonnes and states that it is the distribution centre of the Finnish paper industry for the entire European hinterland as well as handling trucks, trailers, vehicles and containers. Expansion areas and new possibilities of paper handling, allowing for a significant increase in capacity of the terminal are currently being planned.

Terminal Konstinkai is a multifunctional RoRo terminal for forest products, trucks, trailers, new cars and bulk goods and offers transport to St. Petersburg.

Nearly 60 block train services are offered from Lübeck each week to various destinations in Germany, Holland and Italy. The rail share of goods is 16%.

Table 105 - The Port of Lübeck/ Travemünde key services:

Destination	Line	Frequency
Kotka	Finnlines	Weekly
Rauma	Finnlines	3 x Weekly
Helsinki	Finnlines	Daily
Turku	Finnlines	3 x Weekly
Helsinki	Powerline	Weekly
Kotka	Transatlantic	3 x Fortnightly
Turku	Powerline	Weekly
Hamina	Transfennica	2 x Weekly
Hanko	Transfennica	3 x Weekly
Kemi	Transatlantic	2 x Weekly
St Petersburg	Transfennica	Weekly
Ventspils / Liepaja	Scandlines Germany	4 x Weekly
Riga	AVE Line	2 x Weekly
Paldiski	Transfennica	3 x Weekly

Freightlink quoted €1,341 for a 40' laden container to Helsinki with a journey time of 36 hours.

Rostock

Goods transported through Rostock accounted for 27.2 million tonnes in 2008 and 21.5 million tonnes in 2009. Figures are starting to recover however with a comparative increase in goods traffic of 10% for the first half of 2010. With a total of 10.6 million tons of bulk goods handled in 2008, Rostock is the largest bulk goods port on the German Baltic Sea coast.

The ferry and ro-ro lines of Rostock seaport provide rapid connections in the Baltic Sea region. The ferry and ro-ro traffic accounts for a significant portion of cargo handling in the port of Rostock and has exhibited enormous growth in the recent years. A total of 16 million tonnes of rolling cargo – ferry and Ro-Ro cargo – was moved through the seaport in 2008 accounting for 59% of the total cargo volume. In 2008 a decline was recorded in ferry cargo, down 10% or 1.4 million tons to only 13.7 million tons at the year's end. In contrast, Ro-Ro cargo increased by one million tons to 2.3 million tons. These results are attributable to the new Ro-Ro connection between Rostock and Hanko, Finland. At the terminal for intermodal traffic, a total of 69,053 cargo units with a total tonnage of 1.46 million tons were moved in 2008.

The port has very good intermodal connections and 25 block trains from and to Verona, Basel, Hamburg and Wels (Austria) are cleared weekly at the combined cargo terminal. The capacity was increased to process three trains simultaneously since the beginning of 2006. Up to 85,000 units per year can be handled now. It is planned to expand the capacity to 120,000 units per year if required. Furthermore, the introduction of a high-efficiency IT system is to be carried out in order to support operational processes.

Table 106 – The port of Rostock key services:

Route	Frequency	Shipper	Travel Time
Rostock - Lübeck - Turku (Finland) - Rauma (Finland) - Rostock	Weekly	Finnlines	
Hanko	4 x Weekly	Scandlines	35 hours

Freightlink quoted €1,279 for a 40' laden container from Rostock to Helsinki with a journey time of 24 hours.

St Petersburg

The port of St Petersburg handled 50 million tonnes in 2009 with the main commodities being oil products (15.9 million), containerised cargo (14.5 million tonnes or 1.3 million TEU) and metals (5.9 million).

St Petersburg is known as the marine capital of Russia. St Petersburg has 36 berths with a total length of 6.5 km.

Dramatic changes in the structure of the external trade of Russia due the world financial crisis caused significant changes in the cargo flows of Baltic ports. In order to ensure the stable development of port complex the group of companies St Petersburg is trying to diversify its capacities.

The development programme of port infrastructure up to 2015 envisages placing into operation the following facilities:

- Terminal for ferrous metals with annual capacity of 2 mln. tons;
- Terminal for ro-ro cargoes with annual capacity of 1.4 mln. tons;
- Refrigerated terminal with annual capacity of 1.5 mln. tons;
- Multipurpose handling facilities with annual capacity of 3 mln. tons;
- Second phase of car terminal with the annual capacity of 170 thousand units (255 thousand tons)
- Second phase of container terminal in order to handle 1.5 mln. TEUs (17 mln. tons) per year

Ust Luga

The port of Ust Luga has a depth of 16m and a design capacity of 12 – 15 million tonnes per year. In 2009 the cargo turnover of Ust-Luga port increased 53.2% compared to 2008 and amounted to 10.4 mln. tons

From Jan – August 2010 the port handled 7.4 million tonnes. Transshipment of general amounted to 696 thousand tons, predominantly ferrous metals - 509 thousand tons. Transshipment of bulk cargo reached 6.3 million tonnes - predominantly coal and coke 5.5 million tonnes. Handling of timber cargo amounted to 140 thousand tons and ro ro 336 thousand tons.

There are six terminals currently working in Ust-Luga port: a coal transshipping complex, a Universal transshipping complex, a terminal for transshipment of technical sulfur, a motor-railway ferry complex, the Multipurpose transshipping complex and the timber terminal. The plans for 2010 include startup of the Ust-Luga container terminal and a complex of oil cargo. Ust-Luga tank farm facility (the final point of the BPS-2) is expected to start operation in 2011. The first stage of the complex of stabilized gas condensate and the complex of transshipment of liquefied hydrocarbon gases and light oil products is supposed to start operation in 2012.

According to forecasts, by 2015 the cargo turnover of Ust-Luga port will amount to 170 million tonnes. Ust-Luga port is supposed to be built as a universal port. The terminals and specialized zones for various purposes will render services of transshipping and additional handling of over 20 categories of cargo.

Development of Northwest ports and Ust-Luga, in particular, is attached great importance in issues of Russian goods export; therefore, apart from development of the ports themselves, they must have a modern infrastructure, including modern rail infrastructure. The Strategy of railway transport development until 2030 provides for increase of the volume of transit freight transportation 2.8 times. Recently the Russian Railways president stated that "although the [financial] crisis has made considerable adjustments in economic development of the absolute majority of states, development of transit transportation is still a priority task. This task is especially relevant in the light of interests of the railways of the Baltic region."

Russian Railways provides up-to-date reinforcement of external railroad approaches to the port along the line of Mga — Gatchina — Veimarn — Ust-Luga by-passing the congested railroad junction of Saint Petersburg. The first stage of Luzhskaya railroad station, including the first stage of Severny transit-display yard, has been built and put into operation.

Levels of Containerisation

Of goods likely to be able to travel in a container (current unitised goods, Ro Ro and other cargo) the following proportions are currently containerised by country for maritime freight. Statistics are not available for road freight; however, levels are likely to be substantially lower. There has been a growth in containerisation since 1960 and this trend has been faster in countries where labour costs are higher and there are more intermodal movements. Where land based movement are possible by road freight, most goods go in standard road trailers rather than containers. These are not recorded separately to lorries moving containers so are difficult to assess. Lorries moving containers tend to run from either ports or inland rail terminals.

Table 107 – Estonia – Levels of Containerisation

	2002	2004	2005	2006	2007	2008
Inwards to Estonia	18%	17%	20%	20%	21%	25%
Outwards from Estonia	6%	8%	31%	12%	10%	9%
Inwards to Estonia from Germany, Finland and Poland	20%	24%	25%	24%	25%	23%
Outwards from Estonia from Germany, Finland and Poland	10%	14%	20%	21%	16%	12%

Table 108 – Latvia – Levels of Containerisation

	2004	2005	2006	2007	2008
Inwards to Latvia	28%	45%	52%	44%	52%
Outwards from Latvia	4%	9%	11%	12%	14%
Inwards to Latvia from Germany, Finland and Poland	39%	56%	58%	55%	63%
Outwards from Latvia from Germany, Finland and Poland	11%	24%	26%	26%	25%

Table 109 – Lithuania – Levels of Containerisation

	2004	2005	2006	2007	2008	2009
Inwards to Lithuania	32%	33%	36%	43%	49%	46%
Outwards from Lithuania	17%	19%	19%	22%	27%	35%
Inwards to Lithuania from Germany, Finland and Poland	35%	46%	45%	54%	64%	56%
Outwards from Lithuania from Germany, Finland and Poland	37%	42%	36%	39%	50%	41%

Levels of containerisation are generally much higher for traffics to/from Germany, Finland and Poland. In the main levels have been rising over the last 5 or 6 years for all 3 countries with much higher rates of containerisation seen inwards than outwards indicating that there is likely room for growth in outward levels of containerisation. Based upon these figures there is likely also room for growth in containerisation of goods transported between the Baltic States.

1.5 Summary

Table 110 - B.110- Internal Passenger Metric Summary

	Rail								Road (car)								Road (coach)								Air								Total Volume (passengers per day)
	Quality Facilities	Freq	Service Reliability	Speed	Pricing	Mode Share	Quality Facilities		Freq	Service Reliability	Speed	Pricing	Mode Share	Quality Facilities	Freq		Service Reliability	Speed	Pricing	Mode Share	Quality Facilities	Freq	Service Reliability		Speed	Pricing	Mode Share						
E S T O N I A																																	
Tallinn-Tartu	3	3	2	3	2	4	6%		3	3	5	3	2	3	70%		4	4	4	3	2	3	24%		-	-	-	-	-	-	-		4,724
Tallinn-Pärnu	3	3	1	3	1	4	2%		3	3	5	3	2	3	80%		4	4	3	3	2	3	18%		-	-	-	-	-	-	-		3,589
L A T V I A																																	
Riga-Jelgava	3	3	4	5	1	4	27%		3	3	5	3	2	3	62%		3	3	4	3	1	4	10%		-	-	-	-	-	-	-		11,592
Riga-Daugavpils	3	3	1	5	2	4	4%		3	3	5	3	2	3	67%		3	3	4	3	2	4	29%		-	-	-	-	-	-	-		4,808
Riga-Tukums	3	3	3	5	1	4	19%		3	3	5	3	2	3	71%		3	3	3	3	1	4	10%		-	-	-	-	-	-	-		3,980
Riga - Valmiera	3	3	1	5	1	4	2%		3	3	5	3	2	3	79%		3	3	3	3	1	4	19%		-	-	-	-	-	-	-		3,694
L I T H U A N I A																																	
Kaunas – Vilnius	3	3	3	3	2	4	14%		4	3	5	3	3	3	73%		3	3	4	3	2	3	14%		-	-	-	-	-	-	-		20,110
Kaunas - Šiauliai	3	3	1	3	2	4	3%		3	3	5	3	3	3	81%		3	3	3	3	1	3	16%		-	-	-	-	-	-	-		3,626
Legend: Excellent 5, Good 4, Fair 3, Poor 2, Very Poor 1																																	

Excellent 5

Good 4

Fair 3

Poor 2

Very Poor 1

Table 111 - B.111 - Summary of International Passenger Metric Results

	Rail								Road (car)								Road (coach)								Air							Volume (passengers per day) one-way
	Quality		Service						Quality		Service						Quality		Service						Quality		Service					
	Comfort	Facilities	Freq	Reliability	Speed	Pricing	Mode Share		Comfort	Facilities	Freq	Reliability	Speed	Pricing	Mode Share		Comfort	Facilities	Freq	Reliability	Speed	Pricing	Mode Share		Comfort	Facilities	Freq	Reliability	Speed	Pricing	Mode Share	
E S T O N I A																																
Tallinn-Riga	-	-	-	-	-	-	-		3	3	5		2	3	63%		3	3	4		2	4	16%		4	4	3	3	4	1	21%	1,001
Tallinn – Kaunas	-	-	-	-	-	-	-		3	3	5		2	3	86%		3	3	3		1	3	14%		-	-	-	-	-	-	-	28
Tallinn – Vilnius	-	-	-	-	-	-	-		3	3	5		2	3	43%		-	-	-	-	-	-	11%		4	4	2	3	4	1	47%	160
Tallinn - Warsaw	-	-	-	-	-	-	-		2	2	5		2	3	19%		-	-	-	-	-	-	2%		-	-	-	-	-	-	79%	68
L A T V I A																																
Riga-Tallinn	-	-	-	-	-	-	-		3	3	5		2	3	63%		3	3	4		2	4	16%		4	4	3	3	4	1	21%	1,001
Riga-Vilnius	-	-	-	-	-	-	-		2	2	5		3	3	40%		3	3	3		2	3	25%		4	4	3	3	4	1	35%	587
Riga-Kaunas	-	-	-	-	-	-	-		2	2	5		2	3	61%		3	3	2		1	3	25%		4	4	2	3	3	1	14%	232
Riga - Warsaw	-	-	-	-	-	-	-		2	2	5		2	3	27%		3	3	1		1	3	4%		4	4	2	3	4	1	89%	69
L I T H U A N I A																																
Vilnius-Riga	-	-	-	-	-	-	-		2	2	5		3	3	40%		3	3	3		2	3	25%		4	4	3	3	4	1	35%	587
Vilnius-Warsaw	3	3	1	1	1	3	5%		2	2	5		2	3	24%		3	3	1		2	3	25%		4	4	2	3	4	1	45%	135
Vilnius - Tallinn	-	-	-	-	-	-	-		3	3	5		2	3	43%		-	-	-	-	-	-	11%		4	4	2	3	4	1	47%	160
Kaunas-Riga	-	-	-	-	-	-	-		2	2	5		2	3	61%		3	3	2		2	3	25%		4	4	2	3	3	1	14%	232
Kaunas-Warsaw	3	3	1	1	1	3	2%		2		5		2	3	89%		3	3	1		2	3	8%		4	4	2	3	4	1	0%	197
Kaunas - Tallinn	-	-	-	-	-	-	-		3		5		2	3	86%		3	3	3		1	3	14%		-	-	-	-	-	-	-	28

Excellent 5

Good 4

Fair 3

Poor 2

Very Poor 1

Note: The Passenger volumes between Vilnius – Warsaw and Kaunas – Warsaw give in the Table are average daily one-way volumes. The numbers have been calculated from data obtained from Lithuanian National Statistics Database (<http://www.stat.gov.lt/en>)

Table 112 - B.112 - Summary of Freight Metric Results

From	To	Type	RAIL			ROAD			SEA			Current Modal Split		
			Quality	Service	Pricing	Quality	Service	Pricing	Quality	Service	Pricing	Rail	Road	Sea
Finland	Germany		No Current Service			3 4	2 2	1	5	3 3	4	0%	1%	99%
Germany	Finland		No Current Service			As above		As above	5	3	4	0%	1%	99%
Germany	St Petersburg		No Current Service			4	2		4	3	5	0%	0%	100%
St Petersburg	Germany		No Current Service			As above		As above	4	3	5	0%	0%	100%
Latvia	Germany		No Current Service			4	4 2	3	4	4 4	5 5	0%	6%	94%
Lithuania (N)	Lithuania	Bulk	5	5	4				No Service			10%	90%	0%
		non-bulk	2	2	3	5	5	5						
Latvia	Finland		No Current Service			3 4		3	4	3	3	0%	2%	98%
Estonia (N)	Estonia	Bulk	5	5			4		No Service			11%	89%	0%
		non-bulk	2	2	5	4	5	4						
Lithuania	Germany		No Current Service			4	4	3	4	4	4	0%	40%	60%
Estonia (S)	Estonia		As Estonia (N)			4	4	4	No Service			13%	87%	0%
Germany	Lithuania		No Current Service			4	4 3	3	4	3 4	4	0%	34%	66%
Poland	St Petersburg		No Current Service			4	4		4	4	4	0%	100%	0%
Germany	Latvia		No Current Service			4	4 3	3	4	4 4	4	0%	24%	76%
Lithuania	Poland	Bulk			4				4			41%	44%	16%
		non-bulk	2	5	3	4	3	3	4	3	4			
Latvia (N)	Latvia	Bulk	5	5	4				No Service			1%	99%	0%
		non-bulk	2	2	4	4	4	5						
Estonia	Germany		No Current Service			4	2	2	4	4	4	0%	12%	88%
Lithuania	St Petersburg		No Current Service			4	4		4	1 4	3	0%	97%	3%
Lithuania (S)	Lithuania		As Lithuania (N)			4	5	4	4	4	3	1%	99%	0%
Lithuania	Latvia	Bulk	5	5	4				2			57%	32%	11%
		non-bulk	2	2	3	4	4	3						

In table below only combined flows of greater than 1 million tonnes have been included. The table below shows the routes requested by the Estonian Government. Finland Estonia had been omitted from the original table because of the lack of sensible mode choice options and the lack of addressable market, very little of this volume will be attracted to the Rail Baltica Line. The other two routes were omitted from the original table due to having volumes less than 1 million tonnes.

Country		Volume (Thousands Tonnes)			Mode			Rail			Road		Sea		
Origin	Destination	Non Bulk	Bulk	Total	Road	Rail	Sea	Quality	Service	Pricing	Quality	Pricing	Quality	Service	Pricing
Finland	Estonia	316	2361	2677	0%	0%	100%	No Current Service			Involves going Via St Petersburg not modelled		Good quality ports	2- 4 hours 3-6 per day	Approx 500 euros 40' container
Estonia	Latvia	177	371	548	90%	8%	2%	Russian gauge lack of intermodal facilities	Good bulk freight services very little non bulk		Mainly Dual Carriage way	Approx 280 euros	Good quality ports	2 days once a week	Approx 300 euros 40' container
Estonia	Lithuania	83	92	175	78%	0%	22%	Russian gauge lack of intermodal facilities	Good bulk freight services very little non bulk		Mainly Dual Carriage way	Approx 650 euros	Good quality ports	1 day	

Appendix C – Regulatory Constraints

1.6 Regulatory Constraints

Planning

The hierarchy of the different planning levels needed for a cross-national railway

Estonia

Territorial planning is undertaken at three different levels. In descending hierarchy they are:

- a) county plan or county thematic plan (with different alternatives for the railway alignment) based on preliminary design (with different alternatives for the railway alignment);
- b) general plans of the local municipalities that must be coherent with the county plans (not needed for a railway);
- c) detailed plan for land plot(s) where the buildings and structures will be erected.

Plans at each level, as well as the plans from adjacent regions and municipalities, have to be coherent. Planning documents of a hierarchically lower level are subordinated to the hierarchically higher planning documents (e.g. municipal territorial plan is subordinated to the regional plan, which in its turn is subordinated to the national plan).

Latvia

As with Estonia Territorial planning in Latvia is undertaken at three levels:

- a) National level;
- b) Regional level, and
- c) Municipality level (territorial plan and detailed plan (the detailed plan further details part of the municipal territorial plan)).

Plans at each level, as well as the plans from adjacent regions and municipalities, have to be coherent. Planning documents of a hierarchically lower level are subordinated to the hierarchically higher planning documents (e.g. municipal territorial plan is subordinated to the regional plan, which in its turn is subordinated to the national plan).

Hierarchically the highest document in this chain is the Strategy for the long-term development of Latvia. This document was approved by the Saeima (the Parliament) on 10 June 2010, and the project "Rail Baltica" is envisaged in it¹⁴.

The next level is the territorial plans of the planning regions. There are five planning regions in Latvia. Depending on the selected route for the project, 2 – 3 planning regions could be affected, namely the Zemgale region, the Riga region and the Vidzeme region. It is necessary to ensure that territorial plans of the planning regions reflect the route of the railway.

Finally, based on the regional territorial plans, the municipalities have to foresee a railway within their territorial plans. The municipalities have a right to suggest amendments to the regional territorial plans, so, in principle, planning regions and municipalities have to work in coordination.

Lithuania

According to Lithuanian law, there are 3 levels of territory planning documents. These are:

- a) master plans;
- b) special plans;
- c) detailed plans.

The master plans are prepared for bigger territories comprising the state, the municipality or its parts (cities and towns). Currently almost all of the municipalities of Lithuania have valid master plans (master plans of 5 municipalities have been prepared, but have not been approved yet, procedures on preparation of the master plan of 1 municipality have been started).

¹⁴ Available in Latvian at <http://www.latvija2030.lv/upload/latvija2030_saeima.pdf>

The special plans are prepared for the development of specific activities (e. g., in order to develop infrastructure (engineering, communication etc.), high-rise dwellings or for particular territories (parks and etc). Please note that in the case where a municipality has a valid master plan and issues related to infrastructure or objects of significant importance to the state/municipality and their location are covered in these plans then there is no need for a special plan. However, a special plan (when it is prepared) must comply with the master plan for the respective territory.

The detailed plans are prepared for a particular land plot or group of land plots. Possible activities which are permitted on the plot are established in the detailed plan. It is important to note that the detailed plan must comply with both the master plan and the special plans valid within the respective territory. In the case where it is intended to develop an activity on the land plot other than that indicated in the master plan, then the master plan must be amended. It should also be noted that preparation of a detailed plan may not be needed for the purpose of constructing communication infrastructure, e.g. a railway, a road etc provided that all of the issues have been solved in the master or special plans.

Referring to the above, before starting any territory planning procedure for the Rail Baltica project, the master plan (if any) should be analysed and clarification should be sought as to whether special plans and/or detailed plans are needed for the purpose of construction of the railway. In addition, if it is intended to be construct the railway along the line of the existing route, the previously approved special and/or detailed plans should be analysed and if these plans and their regulations are appropriate for the construction of the new railway, it may be possible to avoid many of the procedures regarding adoption of the detailed/special plans.

1.6.1 Time frame of different planning procedures

Estonia

County plan

Adoption of a county plan usually takes 1.5-4 years. Depending on the actual circumstances the period may be shorter, but also significantly longer.

The main actions, statutory deadlines and participants in the procedure for adopting a county plan are described in the table below:

Table 113 - Estonia County Plan Actions

Action	Time-line
Initiation of the county plan	Initiation will be decided by the Government.
Informing the public and the local municipalities about the initiation of the county plan	The county governor informs: - the public through a newspaper within 30 days; - local municipalities within 2 weeks after the initiation decision.
Preparation of the county plan	The land plot owners within the planning area and the neighbours must be involved in the planning process. Every person has the right to submit proposals and the county governor is obligated to respond within 4 weeks.
Public display and public hearing before county plan acceptance	Before the county plan can be accepted the county governor must organize the presentation of the initial planning outlines, draft plans and alternative railway routes. Public hearings and a public display must be organized together with the local municipalities. The term is not specified.
Agreement of the county plan	The county governor shall seek agreement on the contents of the county plan from the county governors of counties neighbouring the planning area and from local municipalities within the planning area. The term is not specified.
Acceptance, public display	The county governor makes the decision to accept the county

and public hearing of the county plan	plan and organizes a public display. The county governor informs affected land owners by registered mail at least 2 weeks before the start of the public display and sets the date and time for the public hearing. Also the county governor informs the public 1 week before the start of the public display and also the date and time of the public hearing via newspaper entries. Also the county plan must be accessible through the county governor website until the end date of the public hearing. The public display of the county plan lasts 4 weeks. Everyone has the right to object to the plan or to propose alterations. The county governor has to give a reasoned opinion on all the proposals and objections received within 4 weeks of the end of the public. The county governor must organize the public hearing within 6 weeks. The county governor is obligated to publish in a newspaper a notification about the outcome of the public display and public hearing within 2 weeks if there were any written proposals or objections. The county governor will make the necessary changes to the county plan and if there are many changes then a new agreement process is needed.
Surveillance proceeding	After the changes the county governor sends the revised county plan to the Estonian Ministry of the Interior together with the proposals and objections that were ignored. The minister sends a written response to the parties within 2 weeks of hearing the arguments from the parties. The Minister will accept the county plan after the governor has made any changes requested by the Ministry.
Adopting the county plan and notification	The county plan will be adopted by the county governor after the surveillance proceeding. The County governor informs : • the public within 1 month after the adoption of the county plan; and • the local municipalities and the Ministry of the Interior by sending a copy from the adoption decision and the county plan. Everyone has the right to contest the county plan in the administrative court within one month from the day they became aware or should have become aware of the adoption of the county plan. The county plan enters into force one day after the location of the railway has entered into every existing adopted general plan.

Detail plan

Adoption of a detail plan usually takes 6 months-3 years. Depending upon the actual circumstances the period may be significantly longer.

The main actions, statutory deadlines and participants in the procedure of adopting a detail plan are described in the table below:

Table 114 - Estonia Detail Plan Action

Action	Time-line
Initiation of the detail plan	Initiation will be decided by the local municipality. Term is not specified.
Informing the public about the initiation of the detail plan	The local municipality informs the public within 30 days after the initiation decision through a public newspaper. Within 1 month after the initiation of a detail plan the local municipality is obligated to put up an information plaque on the planning area and the plaque must stay there for at least 1 month. If the detail plan leads to land expropriation then the local municipality is obligated to inform the land owners via registered mail within 2 weeks after the initiation decision or after the expropriation need has occurred. The local municipality will provide to the county governor within 2 weeks of the initiation decision the necessary information. Also the local municipality sends a notification within 2 weeks to the land owners on and neighbours to the planning area.
Preparation of the detail plan	The local municipality is obligated to involve the land plot owner and the neighbouring land plot owners. The term is not specified.
Agreement of detail plan	Term is not specified. Usually the agreement from different state authorities takes 30 days after receiving the agreement application from the local municipality.
Public display and public hearing before detail plan acceptance	The local municipality will decide if a public presentation and public display of the initial planning outlines and draft plans is necessary.
Acceptance and public display of the detail plan	The local municipality makes the decision to accept the detail plan and organizes a public display in the municipality centre. No later than 2 weeks before the date of the public display of the detail plan the local municipality informs: • the land plot owners who might be affected by the expropriation process; • other affected persons; • the people who's objections were not accepted during the preparation of the detail plan; • the non-profit organization which represents the local residents, if necessary; • the people who submitted proposals or objections during the last public display or hearing. The local municipality is obligated to inform the general public through a local newspaper 1 week before the start of the public display. In addition the detail plan must be accessible through the local municipality website until the end of the public display. The detail plan must also be added to the information plaque in a public place or building (for example in bus stops) 2 weeks

	before the start of the public display. The public display lasts 2 weeks. The local municipality has to give a reasoned opinion on all the proposals and objections received within 4 weeks from the end of the public display. The date and time for the public hearing must also be notified within the same period. The local municipality organizes the public hearing within 6 weeks. The local municipality is obligated to publish in a newspaper a notification about the outcome of the public display and public hearing within 2 weeks if there were any written proposals or objections.
Surveillance proceeding	After the changes the local municipality sends the detail plan, if necessary, to the county governor with the proposals and objections that the local municipality ignored. The county governor will send the written response to the parties within 2 weeks after the county governor have listened to both parties. The county governor will accept the county plan after the local municipality has fulfilled all the governors' requests. Any disagreements between the local municipality and county governor are settled by the Ministry of the Interior.
Adopting the detail plan and notification	The detail plan will be adopted by the local municipality after the surveillance proceeding. The local municipality informs : • the public within 1 month after the adoption of the detail plan in a local newspaper; and • the county governor by sending a copy of the adoption decision and the county plan; • people who submitted written proposals or objections during the public display; land owners whose land will be expropriated or on whose land there is a requirement for a temporary building; or any other persons affected by the plan within one week after the adoption of the detail plan via registered mail; If during the public display there were written proposals or objections then within 14 days after adoption of the detail plan the local municipality is permitted to give out any building permits or permit of use. Everyone has the right to contest the detail plan in court within 30 days of the day on which he or she became aware or should have become aware of the adoption of the detail plan.

Latvia

The Strategy for the long-term development of Latvia was approved by Saeima (the Parliament) on 10 June 2010, and the project "Rail Baltica" is envisaged in it.¹⁵

There are no concrete deadlines within which territorial plans should be developed and approved. A review of publicly available information revealed that at the municipal level, development and approval of a territorial plan may take from 1 to 4 years (in the majority of cases it was 2 to 3 years). This timeframe includes also the public debates, which are mandatory.

Lithuania

If the proper master plan exists for the respective municipality or territory, the process of preparation and approval of the detailed plan may take approximately 6 to 12 months or in some cases even longer. In situations where amendments to the master plan or preparation of a special plan are needed, the procedure may be significantly longer and more complicated.

Adoption of a special plan also takes approximately 6 to 12 months or even longer (depending on the level of the special plan and other issues).

The detailed plan/special plan is prepared according to the set of the conditions for detailed/special planning. The respective authority must issue the set within 20 business days after the receipt of the respective application.

After the detailed/special plan is drawn up, the organiser of the planning procedures must make it available to the general public. The organiser must allow at least 20 business days for familiarisation of the details of a detailed plan, not less than 1 month for a special plan of district level and not less than 2 months for a special plan of national or regional level.

The general public as well as the owners and the users of the neighbouring land plots have the right to put forward their suggestions to the organiser of the detailed/special planning regarding the detailed/special plan before its public consideration. These suggestions must be considered and the organiser must reply to these suggestions in writing. If the proposer of the suggestion is unhappy with the reply then they may appeal to the authority monitoring territorial planning within 1 month. The reply from this authority may also be appealed by submitting a claim to the courts. Any judicial procedures may significantly extend the duration of the detailed/special planning procedure, as it is very likely that the authorities will not approve the detailed/special plan until these procedures are complete.

After the detailed/special plan is presented to the general public and the latter has no suggestions or appeals regarding the detailed/special plan or these appeals have been solved, the detailed/special plan must be delivered to the authority monitoring territorial planning. This authority must issue a verification deed of the detailed/special plan within 20 business days after the receipt of the detailed/special plan. This deed may contain a positive or negative decision by the authority regarding the detailed/special plan. In the case of a positive decision, the detailed/special plan may be submitted for approval to the respective authorities. The authority should approve or refuse to approve the detailed plan or the special plan of district or territory level within 20 business days after the receipt of the plan, the special plan of regional level – within 2 months and the special plan of the national level – within 3 months. The detailed/special plan enters into force after it is approved by the respective authority and announced in accordance with the relevant Lithuanian legal acts.

1.6.2 Existence of the Government's special rights to override municipalities in planning matters for projects of national interest

Estonia

Railroads in Estonia are not projects of national interest but according to planning laws special rules apply for railroad planning. The Government has the right to initiate a county plan for the railway. The procedure is managed and the county plans are adopted by the county governor (who by law is a representative of the state interests). The law clearly divides the competences of the state and municipality. The final decision with regard to the validation of county planning document will be made by the county governor in co-operation with the local municipalities. After the adoption of the county plan the general plans that have been adopted before the county plan must be changed according to the county plan. The county plan enters into force 1 day after the changes to all general plans related with the county plan have been made.

¹⁵ Available in Latvian at http://www.latvija2030.lv/upload/fatvija2030_saeima.pdf.

Specific rules described above apply to the planning of a railway, which does not require a detail plan. However buildings and structures e.g. stations on the railway land still require a detail plan. The law does not define clearly the list of structures that need a detail plan (only substations are mentioned expressly in the law).

Latvia

There are no special rules with respect to railways, and in Latvia there is no such category of projects as "projects of national interest", but the hierarchy of the planning documents and the subordinated nature of documents of a lower hierarchical level is clearly defined.

The Minister of regional development and municipalities has a right to stop whole or part of illegal municipal territorial plans, which, in our opinion, could be also a case of discrepancies between the plans at regional and municipal level.

On the other hand, since territorial plans are adopted as normative acts (municipal regulations), the people have a right to contest the territorial plans in the Satversmes tiesa (the Constitutional Court). There have been several such cases, many of them still pending.

Lithuania

We are not aware of any Government right to override municipalities or more favourable rules for projects of national interest/importance. All regulations set in the legal acts regulating territory planning are applicable for projects of national importance. However, the respective authorities may be more co-operative or make decisions/issue documents faster in the case of a project of national interest (e.g., the Government of the Republic of Lithuania recognised the project "Rail Baltica" as project of national interest by the Resolution No. 371 dated 7 April 2010).

1.6.2.1 Levels of planning that could be avoided if Rail Baltica would use the current alignments

Estonia

Provided that there is no need to acquire additional land for building the new tracks next to the existing ones, the need for a county plan can most probably be avoided. However, if some additional land is necessary and the safety zones of the railway change due to the new alignment, then a detailed plan is most likely necessary and it is possible that the general plans may also need to be changed. A detail plan is required for any new buildings or structures.

Latvia

If there are no changes with respect to the land plots and their intended use, as well as to the restrictions arising out of its use (e.g. safety zones), amendments to the existing plans or development of new plans will not be necessary. However, it is unlikely that no amendments will be necessary at the municipal territorial plan and detailed plan level.

Lithuania

If construction of the railway or buildings related to it complies with the existing territory planning documents there is no need to change these documents or prepare new ones. However, if construction of the railway or buildings related to it does not comply with the detailed plan of the particular land plot, special plan and/or the master plan of the territory, the new detailed plan of the land plot must be prepared and the special plan and/or master plan should be amended accordingly.

1.6.2.2 Effect of an appeal to administrative court in related to the detailed planning

Estonia

An appeal to the administrative court does not suspend the detailed planning procedure or implementation of the plan, unless the court decides to suspend it (interim injunction).

Any administrative act is valid until declared invalid by the court or by the administrative authority. So filing a claim to the court does not legally postpone the implementation of the detail plan (or any other validated planning document either), which means a claim to stop the implementation must also be filed (interim injunction).

The court may ask for the opponent's opinion before ruling on an interim injunction. It is possible to challenge the ruling (possible only one time, i.e. the challenge will not go through all three court instances).

Latvia

The people do not have a right to appeal against the territorial plan during the process of its development. They have a right to be informed and to express their opinion and submit proposals, which can be rejected.

However, once the territorial plan at the municipal level is approved, people have a right to contest it in the Satversmes tiesa (the Constitutional court). An application to the Constitutional Court does not stop the operation of a plan. However, there is a risk that the Constitutional Court may revoke all or part of the territorial plan and it can do so as of the date of its judgement, or as of the date of the entry into force of the contested territorial plan.

Lithuania

As mentioned above, the general public as well as the owners and the users of the neighbouring land plots have the right to put forward their suggestions to the organiser of the territory planning before public consideration of the plan. These suggestions must be considered and the organiser must reply to these suggestions in writing. The reply may be appealed to the authority monitoring territorial planning within 1 month. Then the reply of this authority may also be appealed by submitting a claim to court and it is very likely that the authorities will not approve the detailed/special plan until these procedures are completed.

1.6.3 Land Expropriation

1.6.3.1 The timeframe of the procedure

Estonia

The expropriation procedure usually takes 2-2.5 years, but depending on the circumstances can take substantially longer. The expropriation procedure can be started after the relevant planning justifying the need for the expropriation is adopted.

The main actions, statutory deadlines and participants in the procedure for land expropriation are described in the table below:

Table 115 - Estonia Land Expropriation Actions

Action	Time-line
Decision to start preliminary works	6 months.
Finalizing of the preliminary works	6 months.
Notice regarding the filing of the expropriation application	The deadline to submit objections is 2 weeks.
Compilation of the expropriation application	Term is not specified.
Filing the expropriation application	State institution shall submit an expropriation application to the minister whose area of government corresponds to that for which the expropriation is applied. The minister submits the application to the Government within 1 month.
Decision to start compulsory execution	Revocation complaint deadline is 30 days from communication of the complaint. In this part there can be also an appraisal which can last 2 week or up to 2 months.
Appraisal report sent to land plot owner	Term is not specified
Delivery of the appraisal report	
Compromise procedure	1) Notification in the public newspaper to inform the related persons that they can notify at least within 2 weeks about their

	rights and claims; 2) Notification to the land plot owner and limited real right owners. Land lord and limited real right owner are obligated to inform about their claims within 2 weeks after receiving the notification; 3) The term of summoning the participants is not specified; 4) The second meeting date will be set at the end of the First meeting and the term is not specified; 5) Deadline for the compromise is 30 days; 6) The term for preparation of the compromise statement and protocol is not specified;
Determine the price of the compulsory execution	Revocation complaint deadline is 30 days from the communication. The deadline to pay compulsory execution price is 3 months.
Transferring the price of the compulsory execution and transferring the land plot.	Term is not specified but the ownership can be transferred after the compulsory execution price is paid.

Latvia

There is no timing defined by the laws of Latvia. Since expropriation in Latvia can be done only by adopting a separate law, the timing depends on the political will of the Saeima (the Parliament). Some of the latest laws were adopted in a time frame 2 – 8 months.

Lithuania

A state institution or municipality council may initiate the procedure of expropriation. However, the decision regarding the commencement of the procedure and expropriation itself is taken by the National Land Survey under the Ministry of Agriculture.

Land may be expropriated from private land owners for public needs only in exceptional cases by the decision of the National Land Service following the request submitted by a state institution or the municipal council where the land, pursuant to the detailed and special plans is required for:

- a) the construction of public railways and roads, pipe lines, and high voltage transmission lines as well as for engineering structures required for their operation that belong to the state or a municipality by the right of ownership and used for public needs;
- b) the implementation by the state of economic projects of state significance whose importance for public needs is recognised by the Seimas or the Government by its decision;
- c) or other activities established in legal acts (the list is exhaustive).

A state institution or municipal council, when submitting an application to the National Land Service regarding expropriation of land for public needs, shall also inform the owner of the land about the submission of such application and indicate the specific goals for which the land is intended to be expropriated. The National Land Service (or its subdivision) shall consider the application and take a decision as to whether to start or not the procedure for land expropriation. The decision of the National Land Service may be appealed in the court.

The National Land Service takes a decision concerning expropriation of land pursuant to the approved project for expropriation of land for public needs and the agreement on the manner and amount of compensation concluded between the owner of private land, other user of land and the institution which has filed an application for expropriation of land for public needs. The value of the land plot to be expropriated, the losses related to expropriation of land and the manner of compensation shall be stipulated in the decision concerning expropriation of land for public needs. This decision within 5 business days must be sent to the institution

which has initiated the expropriation procedure and to the land owner as well as the Real Estate Register. The latter shall make a record in the Real Estate Register about taking the decision to expropriate the land for public needs.

The timing depends on time which will take preparation and approval of the expropriation project and if there are any disputes and/or court claims.

1.6.3.2 The parties to the expropriation

Estonia

As a general rule, the procedure is initiated by the government. In the application of the compulsory execution the applicant is obligated to get an opinion from the municipality.

Latvia

Expropriation is necessary if it is not possible to reach an agreement with the owner of the real estate.

Formally a proposal to expropriate a real estate, in a form of a draft law, is submitted by the Cabinet of Ministers. Such proposal can be initiated either at the request of the responsible Ministry, or at the request of a municipality.

During the discussions in the Saeima (the Parliament) also the opinion of the owner should be found out.

The Saeima (the Parliament) only decides on the fact of the expropriation. After such a law enters into force, it is possible to write in the Land register a prohibition to alienate the said property. Still, the remuneration or barter for the property has to be agreed with the owner.

Lithuania

A state institution or municipality council may initiate the procedure of expropriation. However, the decision regarding beginning of the procedure and expropriation itself is taken by the National Land Survey under the Ministry of Agriculture.

1.6.3.3 Effects of disputes over fair price of land

Estonia

Commonly, before starting the expropriation official procedure, parties negotiate the price. If there is no consensus reached, the state or local government will continue with the expropriation procedure. During that, also a compromise procedure is carried out to agree on the expropriation payment payable to the owner the immovable under expropriation and of the compensation for damage caused to the rights of other persons by the expropriation. If compromise is not reached, the state or the municipality decides the price unilaterally, pays it and only then the ownership will be transferred.

So the price matter is always solved before the land is transferred, either by an agreement or by the authority's unilateral decision.

Latvia

If an agreement with the owner on the price cannot be reached, the price will have to be determined by the court. A state will be entitled to register its ownership rights on the said property only after the judgement of the court will enter into force (it is subject to appeal) and the price will be paid.

Lithuania

The value of expropriated property is established by evaluating the property pursuant to the requirements set in the respective regulations. However, even in case the institution and the owner/user of the land plot fail to agree the amount of compensation for expropriated property, the National Land Service takes decision to expropriate the property. In this case the institutions initiating the expropriation procedure within 3 months must apply to the court requesting to confirm legitimacy of the decision. When the court confirms the legitimacy of the decision, and expires term for appeal of the court's decision, the court may permit to register the property with the Real Estate Register as the ownership of the state. Please note that the court may confirm the legitimacy of the decision without taking the decision whether the amount of compensation is fair. The court may continue procedures and investigation regarding fairness of the compensation. These procedures do not prevent from registration of the property as the ownership of the state and use of the property for the purposes indicated in the decision on its expropriation.

In case of other court claims the expropriated property may be registered as the ownership of the state only after the institution settles with the owner/user of the property pursuant to the order established in the decision of the court, except cases when the court by a separate decision permits otherwise.

1.6.4 Setting of tariffs

1.6.4.1 Estonia

Infrastructure access fee

Entity setting infrastructure usage fee

Currently the infrastructure usage fee (Tariff hereinafter in subsection 1.1) are determined by the Estonian Technical Surveillance Authority (the Regulator hereinafter in section 1), a state authority independent from market participants. The Regulator is determining the tariffs to assure non-discriminatory access to public railways as currently infrastructure managers belong to the same group with train operators.

Legal basis and aim of regulated tariffs

The Tariff is determined on the basis of the Railways Act and national methodology of calculation of the railway infrastructure usage fee (the Methodology hereinafter in section 1)¹⁶.

The Tariff comprises the costs of giving the railway infrastructure into use and of a reasonable commercial profit.

Separate tariffs

Separate tariffs are determined for main services, additional services and ancillary services (scope of these services is similar, but not identical to the catalogue provided in Annex II to Directive 2001/14/EC).

Tariffs for main services and additional services include the costs of giving the railway infrastructure into use and of a reasonable commercial profit. The tariffs for ancillary services include costs, but profits only if multiple ancillary service providers exist.

Below we shall provide an overview of determination of the Tariff for main services only.

Structure of total cost base

The cost base (Total Cost Base hereinafter in section 1) for determining the Tariff is the sum of the following components:

- Operational cost of the respective service (direct costs and proportional part of overheads);
- Depreciation allowance calculated from regulatory value of [i.e. value of necessary investments at cost (no revaluations are taken into account¹⁷) the regulatory asset base];
- Reasonable profit [regulatory (not market based) WACC applied to the value of the regulatory asset base].

Components of the Tariff

The Tariff consists of two components:

- Fixed part calculated based on reserved train kilometres (effectively working as reservation charge);
- Variable part calculated based on actual gross ton-kilometres (=weight of train in tons multiplied by the covered distance in kilometres).

Fixed part is payable based on train paths reserved by (allocated to) a train operator in capacity allocation process irrespective whether the paths are used. Therefore the fixed part also works as a reservation charge.

The fix part must be in the range of 4.15-6.39 EUR per train kilometre and the variable part in the range of 0,00255-0,00447 EUR per gross ton-kilometre.

¹⁶ Official text available form (in Estonian) <http://www.rigikateataja.ee/ert/act.jsp?id=13304518>, 30. august 2010

¹⁷ Currently the Supreme Court is analysing whether prohibition to take into account revaluations is constitutional in high inflation

Calculation of fixed and variable part of the Tariff

The Methodology stipulates that the following rules are used to determine fixed and variable costs and fixed and variable part of the Tariff:

- If at least 75 % of train kilometres on relevant infrastructure for a working timetable period are ordered / reserved for public passenger service then 70 % of the cost base is regarded as fixed costs and 30 % of the cost base is regarded as variable costs;
- If less than 75 % of train kilometres on relevant infrastructure for a working timetable period are ordered / reserved for public passenger service then 30 % of the cost base is regarded as fixed costs and 70 % of the cost base is regarded as variable costs

For infrastructures where less than 75 % of train kilometres are reserved for public passenger service only variable part of the Tariff is charged from providers of public passenger service.

For infrastructures where at least 75 % of train kilometres are reserved for public passenger service only variable part of the Tariff is charged from providers of freight service.

There is no evidence available on financial justification of sharing fixed and variable costs under these proportions and some specialists have regarded these methods as unjustified.

Calculation of the Tariff for the main service

The Tariff for the main service is calculated based on the following formula:

Figure 70 - Calculation of the Tariff for the main service

$T_0 = P_0 + M_0$
Whereas:
T_0 = total monthly Tariff for the main service
P_0 = fixed part of the monthly Tariff for the main service per one train-kilometre

If at least 75 % of train kilometres on relevant infrastructure for a working timetable period are reserved for public passenger service then the fixed and variable parts of the monthly Tariff for the main service is calculated based on the following formulas:

$P_0 = (70\% \cdot \text{Total Cost Base} / 12) / \text{train-kilometres reserved in the particular month for public passenger service}$
and
$M_0 = (30\% \cdot \text{Total Cost Base} / 12) / \text{actual gross ton-kilometres.}$

$P_0 = (30\% \cdot \text{Total Cost Base} / 12) / \text{train-kilometres reserved in the particular month for other service than public passenger service}$
<i>The fixed part calculated in case of this scenario under the formula must be within the range of 4.15-6.39 EUR.</i>
and

Based on the above formulas the Regulator determines the estimated Tariff, which will be the basis for payments from train operators to the infrastructure manager. Based on actual monthly data the Regulator *ex post* adjusts the estimated Tariff for particular month. The infrastructure manager and train operators will settle the imbalances so the adjusted Tariff will represent the actual and final Tariff.

Overview of the Tariff levels

The following table provides overview of the average fixed and variable parts of the Tariff (adjusted) for the use of EVR Infra AS infrastructure (majority of the Estonian rail network) during the last timetable periods¹⁸.

Table 116 – Estonia Tariff Levels

Timetable Period	Average Fixed Part (EUR/ train/km)	Average Variable Part (EUR/ gross ton km)
2005/2006	1.625	0.002
2006/2007	1.569	0.002
2007/2008	2.302	0.003
2008/2009	5.701	0.004
2009/2010	5.236	0.004
2010/2011 ¹⁹	4.274	0.004

Possibilities to negotiate different tariffs

The Methodology stipulates a possibility to negotiate tariffs different from tariffs determined under the rules provided above if the infrastructure manager and the train operator are concluding a contract for use of rail infrastructure for a longer period than one timetable period. In such a case the tariff to be used in the contract must be approved by the Regulator. The negotiation procedure should be used in situations where there is a need to tariffs for several years and to overcome insecurity arising from the fact that the tariffs are regulated on yearly basis. The approval will be granted based on proposals by the infrastructure manager and the train operator and economical justifications to the proposed tariff and the competition situation in the rail freight market. If the operator commits to guaranteed volume, some discounts may be available, but it should still be cost based and in line with general principles on calculating the tariff. There is no public information on such negotiated tariffs.

Possible regulatory difficulties for setting different level tariffs for Rail Baltica

In Estonia the Tariffs are determined based on actual costs of a respective rail infrastructure. So it is not contradicted, but alleged that because of the investments necessary for Rail Baltica the Tariffs for Rail Baltica will be different (presumably higher) than the current tariffs.

For mitigating risk of or allegation on cross-subsidies between existing infrastructure and Rail Baltica it may be advisable to assure that Rail Baltica is regarded as an infrastructure separate from the other infrastructures servicing East-West or other traffic, and separate tariff is determined for Rail Baltica.

Another concern is related to level of tariffs, if the current Methodology is used. Because of some features of the current Methodology aimed to keep the tariffs on low level (e.g. prohibition to calculate depreciation allowances from fair value of the infrastructure) the tariffs for Rail Baltica, if aim is to charge the total costs, may not be competitive with the tariffs for older 1,520 mm railway. Achieving competitive tariff levels may require substantial public funding.

Based on above it is recommended to conduct a simulation of possible Rail Baltica tariffs if current charging principles are applied. The simulation may reveal that the current models are not suitable for Rail Baltica and new models need to be designed, possibly demanding material changes in policy (e.g. abandoning total cost recovery in pricing).

¹⁸ Information available from the Regulator's webpage: <http://tja.ee/index.php?id=11133>

¹⁹ Information for timetable period 2010/2010 is not annual adjusted Tariff, but the average if estimated Tariffs for May and June 2010. Adjusted Tariffs were not publicly available.

The Methodology can be changed with a regulation of the Minister of Economics and Communication. Recently it has been done without much public debate. This allows flexibility in tariff policies for Rail Baltica; however this increases the risk of arbitrary and short-term policy decisions.

Setting of freight tariffs

The tariffs for carriage of cargo are determined by cargo train operators. These tariffs are not regulated, except general restrictions arising from the competition law (prohibition to charge excessive prices, discriminate or cross-subsidise). The cargo operators calculate exact price for carriage of particular shipment on basis of type of cargo, distance, volume etc. The tariff policy for EVR Cargo, the largest Estonian freight operator, is publicly available and was sent to you on 1 September 2010. The tariff policy is unfortunately available only in Estonian or Russian.

Setting of passenger tariffs

The tariffs to passengers are set by passenger train operators. These tariffs are not directly regulated and depend on the level of service, distance covered, type of ticket (single, period) etc. Also some special discounts can be available for limited groups of persons (e.g. children, students, retired persons). However the tariffs determined by the passenger train company cannot exceed the maximum ticket price and kilometre price determined by the Ministry of Economic Affairs and Communication under the public service contract. Maximum prices are determined so that on one hand the revenue from tickets would cover reasonable part of the costs arising from the service, but at the same time maintaining the affordability of passenger train transport.

Tariffs and subsidies for other modes of transport

Public transport is organised on two levels – municipality level by municipalities and national level by county governments (intra-county lines), the Ministry of Economic Affairs and Communications and the Government.

The following modes of public regular service are subsidised from the state budget:

- National train service;
- Intra-county bus lines and national non-commercial long-distance lines;
- Ship and ferry lines connecting Estonian islands with mainland (or small islands with islands);
- Air service lines connecting Estonian islands with mainland (or small islands with islands).

The following modes of public regular service are subsidised from the municipalities' budget:

- Intra-city or other national train services;
- Intra-city bus, tram, trolley-bus lines, intra-parish bus lines, lines connecting neighbouring municipalities;
- Intra-municipality ship and ferry lines.

Only public regular service lines serviced under public service contract are entitled to public subsidies. The public service contracts are awarded based on public tendering. For larger contracts public procurement regulations must be applied. The main financial criterion for selecting a successful bid is the (lowest) price of line kilometre.

The tariffs for public regular service are set by entities responsible for organising respective mode of transport on level affordable to the customers. The gap between line kilometre of the successful tender and funds received from sales of tickets are covered by subsidies. Total amounts of state subsidies are determined by the parliament in the course of adopting annual state budget.

International air services (inter alia airport services) and commercial lines (e.g. intercity express buses) are not subsidised.

1.6.4.2 LATVIA

General

In Latvia there are separate tariffs for (1) use of public railway infrastructure, (2) for carrying passengers ("Pasažieru vilciens" has different tariffs for carrying passengers in electric or diesel trains) and (3) for carrying cargoes.

In Latvia only tariffs for the use of public railway infrastructure and tariffs for providing services of public transportation (such as carriage of passengers by railway) are partly regulated, that is, there is an approved methodology, according to which the tariffs shall be calculated.

Infrastructure access fee

According to the Railway Law, the Public Utilities Commission, in consultation with the operators of the public use railway infrastructure, develops methodology for calculating tariffs for the use of public railway infrastructure. Such methodology was developed and approved on 18 January 2006.

In principle, the tariffs for the use of public railway infrastructure as such, based on the methodology, should be calculated by the operator of the railway infrastructure. However, the Railway Law entrusts Public Utilities Commission to set tariffs in those cases when both – the operator of the railway infrastructure and the carrier are related companies. Since in Latvia this is the case because state owned company "Latvijas Dzelzceļš", who is the operator of the public railway infrastructure, is in the same holding as the carrier of cargos and the provider of international passenger carriage services, on 29 November 2010 the Public Utilities Commission has set tariffs for use of "Latvijas Dzelzceļš" public railway infrastructure for carriage.

The tariffs are set for the use of public railway infrastructure for the year 2011. The calculation for the tariff was submitted by the operator of the public railway infrastructure ("Latvijas Dzelzceļš"), and according to the approved methodology for calculating this tariff, the calculation is done on the basis of the total cost of the infrastructure, cost for maintaining and operating the infrastructure, investments in the infrastructure, taxes and duties and the correction of costs. Detailed formulas for calculating each of these elements are found in the methodology, approved by the Public Utilities Commission.

In accordance with the amendments in the Railway Law, starting from 1 January 2011 a new commercial entity had to be established which would perform the main functions of a railway infrastructure operator and among other things it would set tariffs for the use of the public railway infrastructure on the basis of a methodology, approved by the Public Utilities Commission. However, as outlined above, for the time being the tariffs are set by the Public Utilities Commission.

Setting of passenger tariffs

Tariffs for carriage of passengers in principle are set by the carriers themselves, except, there is a methodology, according to which tariffs for services of public transportation (such as carriage of passengers by railway) shall be calculated. Carrying of passengers by railway in most, if not all, routes in Latvia is procured by the state as the public transportation services.

The methodology for calculating tariffs for carriage of passengers is not publicly available, except the methodology for calculating tariffs for services of public transportation. This methodology allows the procurer of these services to set the tariffs. If this has not been done, the carrier is allowed to set tariffs after they have been accepted by the procurer of the services of the public transportation. The methodology itself relates to carrying passengers within Latvia and mainly describes different methods, available to the carrier for setting tariffs, such as on the basis of the distance, zones, period of time etc. This methodology envisages that:

In the cases of routes of regional local importance or routes between cities, the tariff is based on the passenger kilometre and it is calculated by dividing the anticipated total costs of carriage with the anticipated number of kilometres of carriage.

In the routes within the cities the tariff is calculated on the basis of cost for carrying one passenger, which is calculated by dividing the anticipated total cost for carrying passengers in the given network of routes with the number of passengers.

Tariff for carrying luggage and animals can be disproportional to the length of a trip.

In addition it should be mentioned that according to the Railway Law the carriers of passengers get compensated from the State budget for their payments for the use of railway infrastructure for carrying passengers on inland routes. Such compensation is not available to carriers of cargoes.

Setting of freight tariffs

Tariffs for carrying of cargos are not regulated by governmental institutions. However, for information purposes explanation of tariffs of "LDz Cargo" is available publicly.

Information about methodology of setting tariffs by "LDz Cargo" reveals that "LDz Cargo" calculates its tariff on the basis of cargo (according to the Harmonised Cargo Nomenclature), distance, type of carriage, speed, weight, type and ownership of the rolling stock, category and ownership of the container, services to be provided. Detailed algorithm for calculating the tariff is available in the Tariffs for transit of cargos for year 2010 KTT-LV/2010.

Private freight operator's possibilities to negotiate different tariffs

As far as we are informed, one of the few private cargo carriers – "Baltijas ekspresis" – complained in the court against the set tariffs for the use of the public railway infrastructure in the year 2009. So far the court has rejected this complaint, reasoning that the tariffs are equally applicable to any cargo carrier; therefore there is no basis to complain about these tariffs. "Baltijas ekspresis" initially complained also about the methodology for calculating these tariffs, but the court did not accept the complaint.

We are not aware of any other discussions or negotiations, because setting the tariffs for the carriage of cargos is within the competency of the carrier itself.

Possible regulatory difficulties for setting different level tariffs for Rail Baltica

With respect to the possible tariffs for the use of the infrastructure of Rail Baltica the answer depends on the owner of it. If the owner of the infrastructure in Latvia will be "Latvijas Dzelzceļš", until an independent railway infrastructure operator will be established, the tariffs for the use of this infrastructure will have to be set by the Public Utilities Commission. At this point in time it is impossible to tell if the Public Utilities Commission will be ready to set different tariffs for different types of infrastructure. If, however, the owner of the infrastructure will be another entity, which is not connected to the carriers of passengers or cargos, tariff will be set by that entity. In both scenarios the methodology for calculating tariffs for the use of public railway infrastructure, in force at the given time, will have to be complied with. This methodology is approved by the Public Utilities Commission.

As explained earlier, setting of tariffs for carrying of passengers and cargos is within the competency of the carrier itself. The only exception, which we can see at this point in time, is related to providing the so called "services of public transportation", carrying of passengers by railway being one of them. In case carriers of passengers, operating through Rail Baltica, will receive the rights to provide the mentioned services of public transportation (in Latvia) they will be constrained by the requirements of the procurer of the services and the methodology. This methodology is approved by the Government (the Cabinet of Ministers).

Additional difficulty may arise from the regulations of the Cabinet of Ministers No 854, dated 14 September 2010, which set the criteria for establishing that the main purpose of the service is carrying of passengers between different Member States of the European Union, as well as set criteria for recognising that such service distorts the economical balance of the concluded contracts for services of public transportation. In accordance with these regulations, if embarking and disembarking of passengers within the territory of Latvia distorts the economical balance of the concluded contracts for services of public transportation, the State Railway Administration may impose restrictions on embarking and disembarking of passengers within the territory of Latvia. In accordance with these regulations it is considered that there is a distortion of the economical balance if, firstly, the ticket price is cheaper than the price for equivalent ticket by the local carrier multiplied by 1,2. and/or secondly, if more than 1/3 of the passengers were carried within the territory of Latvia and the departing time of the train is within 10 minutes to 1 hour (depending on the number of local trains per day in the same route) from the departing time of the local train.

Tariffs and subsidies for other modes of transport

International air services (inter alia airport services) and commercial lines (e.g. international intercity express buses) are not subsidised. A concealed way of subsidising intercity bus and train routes within Latvia is the procurement of "services of public transportation".

As explained earlier, setting of tariffs for carrying passengers are within the competency of the carrier itself, except in the case of the so called "services of public transportation" the carrier is constrained by the requirements of the procurer of these services and by the methodology for calculating tariffs for these services, approved by the Cabinet of Ministers.

Since carrying of passengers between Riga and Tallinn currently would not be considered as "service of public transportation" for the purposes of regulating methodology for calculating tariffs, the carrier will be free to set tariffs by itself. On the other hand, carrying of passengers between Riga and Jelgava is falling under the "procured services of public transportation"; therefore setting of tariffs is and most probably will remain constrained by the requirements of the procurer of these services and by the methodology for calculating tariffs for these services, approved by the Cabinet of Ministers.

1.6.4.3 LITHUANIA

The regulatory position on how tariffs for rail are currently set in Lithuania

Infrastructure charge

An infrastructure charge is paid by the railway company (the carrier) to the operator of the railway infrastructure (which is the state owned company AB "Lietuvos geležinkeliai") for the use of the railway infrastructure and the services, provided by the operator.

The method of calculation for this charge (in formulas) is established by the Cabinet of Ministers of Lithuania²⁰, however detailed tariffs (figures, components of the formulas) are set by the State Railway Inspection under the Ministry of Transport. The tariffs set for the year 2010-2011 are publically available²¹. For your convenience, please find below the link to the scheme, picturing

²⁰ Regulations of the Cabinet of Ministers of Lithuania No 610, dated 19 May 2004, available in Lithuanian at <http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=291553>

²¹ Regulations of the State Railway Inspection under the Ministry of Transport No V-27, dated 28 January 2010, available in Lithuanian at <http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=364786>

Private freight operator's possibilities to negotiate different tariffs

There is no specific regulation in Lithuania as regards to the possibility for the private freight operators to negotiate different tariffs. However, according to publicly available information big strategic companies (e.g. Orlen Lietuva), generating a substantial volume of freight enjoy more beneficial tariffs. We are not aware of other discussions or negotiations as setting of the tariffs for the carriage of freights is within the competence of the carrier itself.

Possible regulatory difficulties for setting different level tariffs for Rail Baltica

As the ownership and operation details of Rail Baltica are not clear, it is very hard to predict possible difficulties for setting infrastructure tariffs for Rail Baltica.

Assuming that Rail Baltica as a part of public railway infrastructure shall be owned by the state (operated by AB "Lietuvos geležinkeliai") and the regulations mentioned above shall apply, presumably the tariffs may be negotiated based on strategic importance of the project itself and substantial volumes of freight delivered by Rail Baltica.

It should be also noted, that in Lithuania tariffs determination is based on actual costs and workload of the corresponding rail infrastructure. Accordingly, investment necessary for the railway infrastructure would influence the tariffs for Rail Baltica.

Nevertheless that new legal act regulating the use of Rail Baltica infrastructure may be adopted or existing acts changed/amended, establishing unreasonably favourable legal framework only for Rail Baltica would increase the risk of infringement of competition law as regards to equal treatment and state aid.

Tariffs and subsidies for other modes of transport

International air services (*inter alia* airport services) and commercial lines (e.g. intercity express buses) are not subsidised.

The setting of passenger tariffs are the responsibility of the carrier, except in the case of the so called "services of public transportation", where the tariff is set by the municipality.

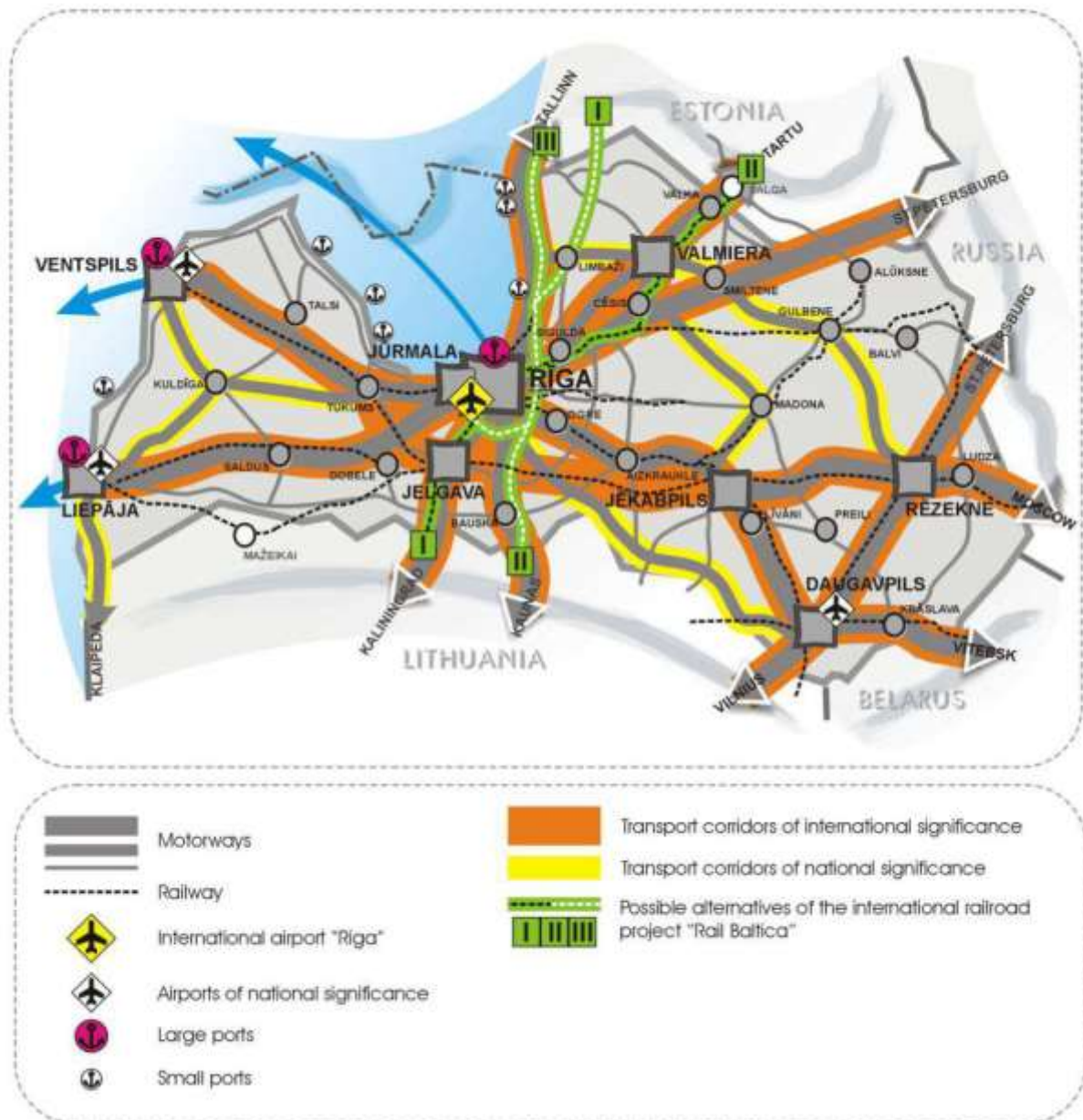
Appendix D – Spatial Plans

Figure 71 - National spatial plan „Estonia 2010“ (2000), transportation map



National spatial plan „Estonia 2010“ (2000), transportation map (<http://www.siseministeerium.ee/>)

Figure 72 - Sustainable Development Strategy of Latvia until 2030



**Sustainable Development Strategy of
Latvia until 2030** (http://www.latvija2030.lv/upload/latvija2030_en.pdf)

Figure 73 - Perspective Railway net and possible Rail Baltica alternatives



Perspektīvais vietējo pasažieru vilcienu maršrutu tīkls, iespējamās "Rail Baltica" trases

Perspective Railway net and possible Rail Baltica alternatives (map from spatial plan of Riga region - <http://www.rigaregion.lv>)

Figure 74 - The Rail Baltica alternatives in spatial plans of Kalvarijos and Marijampole

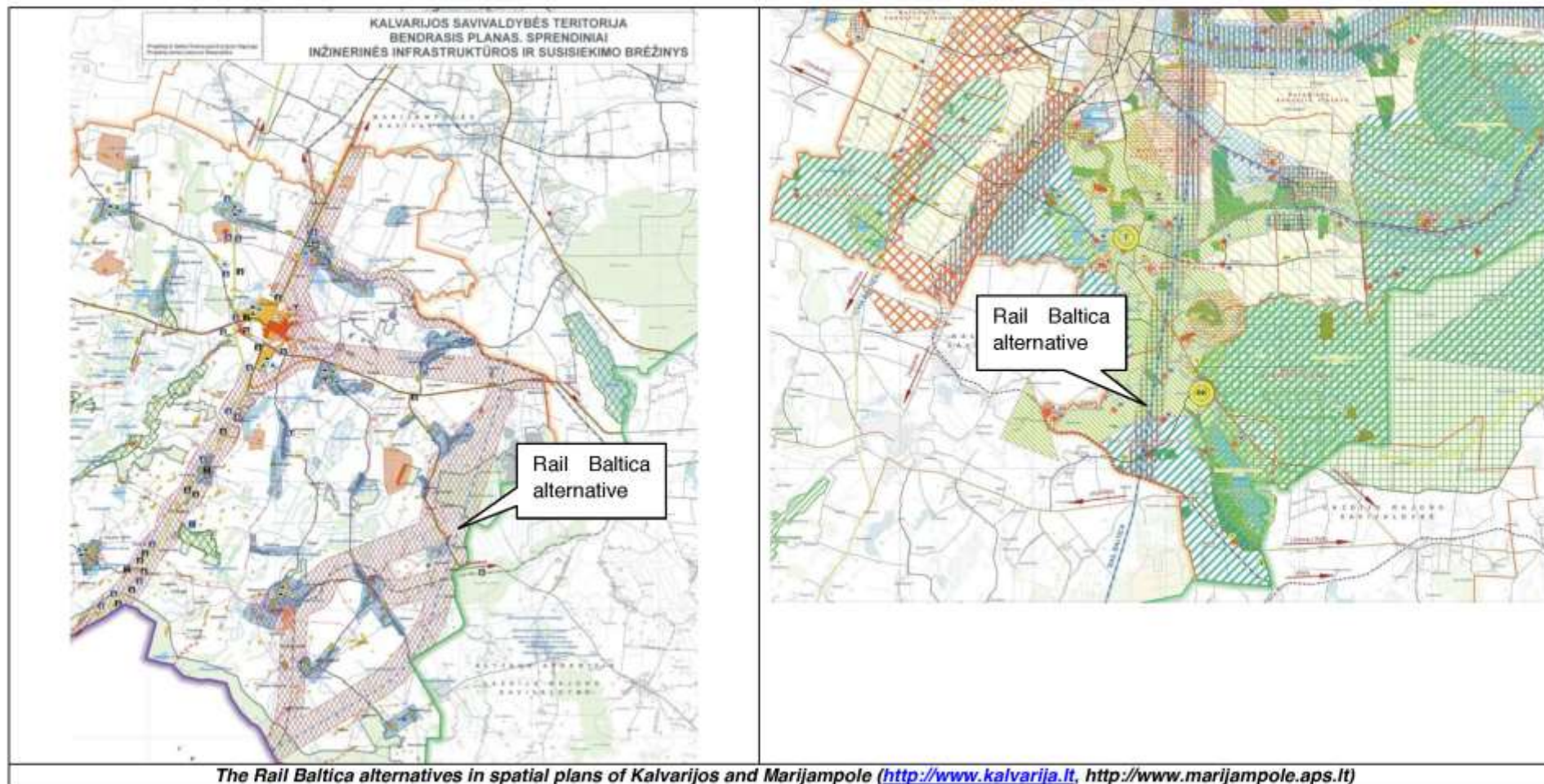


Figure 75 - Rail Baltica alternatives in spatial plans of Baltic States

Map is created using cartographic data from JSBaltija 1.



Appendix E – Environmental Considerations

Table 117 – Environmental Consideration Option 1

Option 1 (RED)							Birds listed on Annex I of Council directive 79/409/EEC		Listed on Annex II of Council directive 92/43/EEC				
Name of site	Site code	Area (ha)	Site type	Railway's proximity to site (distance from railway corridor)	Annex 1, habitat types (number)	Annex 1, Territory covered by habitat (%)	Birds, Annex 1	Regularly occurring Migratory Birds	Mammals	Amphibians	Fishes	Invertebrate	Plants
Taarikõnnu-Kaisma	EE0020340	7519	Birds directive site (SPA)	< 500 m	No data	No data	8	No data	No data	No data	1	No data	1
Põhja-Livimaa	EE0040344	19336	Birds directive site (SPA)	< 500 m	No data	No data	23	8	No data	No data	1	1	No data
Lufemaa	EE0040351	12962	Birds and habitats directives site (C)	< 1 km	30	48.98	25	26	2	No data	2	1	3
Salavälge-Tõrasoo	EE0020314	4634	Habitats directive site (SCI)	< 500 m	19	43	4	No data	No data	No data	No data	No data	2
Rahaaugu	EE0020319	473	Habitats directive site (SCI)	< 500 m	9	38.5	1	No data	1	No data	No data	No data	1
Raikkula-Paka	EE0020322	139	Habitats directive site (SCI)	< 500 m	6	28.5	No data	No data	No data	No data	No data	No data	1
Kuusiku	EE0020336	121	Habitats directive site (SCI)	< 500 m	7	40.4	No data	No data	No data	No data	No data	No data	No data
Kaisma	EE0040306	3170	Habitats directive site (SCI)	< 500 m	10	80.4	2	No data	No data	No data	1	No data	1
Kivikupitsa	EE0040317	135	Habitats directive site (SCI)	< 500 m	3	27.8	1	No data	No data	No data	No data	No data	No data
Lemmejõe	EE0040342	5	Habitats directive site (SCI)	crosses	1	100	No data	No data	1	No data	1	1	No data
Parnu jõe	EE0040345	862	Habitats directive site (SCI)	crosses	3	100	No data	No data	No data	No data	4	1	No data
Parnu	EE0040347	519	Habitats directive site (SCI)	< 500 m	5	90.8	No data	No data	No data	No data	No data	No data	No data
Tolkuse	EE0040359	809	Habitats directive site (SCI)	< 1 km	2	54.2	1	No data	No data	No data	No data	1	No data
Laiksaare	EE0040322	399	Habitats directive site (SCI)	<500m	4	23.8	1	No data	No data	No data	No data	No data	No data
Nepste	EE0040335	34	Habitats directive site (SCI)	<500m	2	80.9	1	No data	No data	No data	No data	No data	No data
Reiu jõe	EE0040384	104	Habitats directive site (SCI)	crosses	1	100	No data	No data	No data	No data	3	1	No data
Salacas ieleja	LV0302200	6251	Birds and habitats directives site (C)	crosses	16	24.5	17	No data	3	No data	8	6	2
Dzelve-Krona purvs	LV0523300	1197	Birds and habitats directives site (C)	<500m	7	85	14	No data	1	No data	No data	No data	No data
Garkalnes meži	LV0527400	1785	Birds and habitats directives site (C)	crosses	2	8.5	11	No data	No data	No data	No data	1	1
Vitupes ieleja	LV0530500	126	Habitats directive site (SCI)	crosses	7	45.5	12	No data	1	No data	5	3	No data
Adazi	LV0600800	6128	Birds and habitats directives site (C)	<500m	11	30	21	No data	1	No data	2	1	2
Budos - Praveniskiu mīš	LTKAIB006	5174	Birds directive site (SPA)	<500m	No data	No data	8	No data	No data	No data	No data	No data	No data
Kauno marios	LTKAUB008	5773	Birds directive site (SPA)	<1 km	No data	No data	14	No data	No data	No data	No data	No data	No data
Kauno marios	LTKAU0007	9026	Habitats directive site (SCI)	<500m	8	4.48	No data	No data	2	No data	1	1	No data
Naugosios Fredos fortas	LTKAU0011	30	Habitats directive site (SCI)	<1 km	No data	No data	No data	No data	1	No data	No data	No data	No data
Kauno azuolynas	LTKAU0020	62	Habitats directive site (SCI)	<500m	No data	No data	No data	No data	No data	No data	No data	1	No data
Sventosios upe zemiau A	LTKUM0002	1654	Habitats directive site (SCI)	crosses	No data	No data	No data	No data	1	No data	4	1	No data
Neries upe	LTVIN0009	2395	Habitats directive site (SCI)	crosses	1	11	No data	No data	1	No data	4	1	No data

Table 118 – Environmental Consideration Option 2

Option 2 (Orange)

Option 2 (Orange)							Birds listed on Annex I of Council directive 79/409/EEC		Listed on Annex II of Council directive 92/43/EEC					
Name of site	Site code	Area (ha)	Site type	Railway's proximity to site (distance from railway corridor)	Annex 1, habitat types (number)	Annex 1, Territory covered by habitat (%)	Birds, Annex I	Regularly occurring Migratory Birds	Mammals	Amphibians	Fishes	Invertebrates	Plants	
Taarkõnnu-Kaiana	EE0020340	7619	Birds directive site (SPA)	< 500 m	No data	No data	8	No data	No data	No data		1	No data	
Kõnnumaa-Väikla	EE0020341	17955	Birds directive site (SPA)	crosses	No data	No data	7		1	No data	No data	No data	1	
Kleopera	EE0040316	16402	Birds directive site (SPA)	crosses	No data	No data	3		1	No data	No data	No data	No data	
Taarkõnnu	EE0020315	2057	Habitats directive site (SCI)	crosses		8	64.5	3	No data	No data	No data	No data	No data	
Rabivere	EE0020316	2189	Habitats directive site (SCI)	crosses		15	61.9	7		7	No data	No data	No data	
Kurna-Võivere	EE0020318	71	Habitats directive site (SCI)	< 500 m		5	64.7	No data	No data	1	No data	No data	1	
Ridaküla	EE0020321	144	Habitats directive site (SCI)	< 500 m		6	79.8	No data	No data	No data	No data	No data	No data	
Kõnnumaa	EE0020325	11397	Habitats directive site (SCI)	crosses		21	65.1	16	10	No data	No data	No data	1	
Tihiku	EE0020326	346	Habitats directive site (SCI)	crosses		7	25.5	4	No data	No data	No data	No data	No data	
Mukri	EE0020327	2211	Habitats directive site (SCI)	< 500 m		10	66.3	6	No data	No data	No data	No data	No data	
Nõivassoo	EE0020337	1106	Habitats directive site (SCI)	< 500 m		9	75	1	No data	No data	No data	No data	No data	
Aiskulvi	EE0040301	17	Habitats directive site (SCI)	< 500 m		3	22.4	No data	No data	1	No data	No data	No data	
Metsakäär	EE0040302	160	Habitats directive site (SCI)	< 500 m		6	74.6	No data	No data	No data	No data	No data	No data	
Siraku	EE0040314	665	Habitats directive site (SCI)	< 500 m		3	71.7	2	No data	No data	No data	No data	No data	
Kuuru	EE0040320	222	Habitats directive site (SCI)	< 500 m		2	76.2	No data	No data	No data	No data	No data	No data	
Mõrdana	EE0040331	1524	Habitats directive site (SCI)	< 500 m		6	57.8	2	No data	No data	No data	No data	No data	
Pärnu jõe	EE0040345	662	Habitats directive site (SCI)	crosses		3	100	No data	No data	No data	No data	4	1	
Pärnu	EE0040347	519	Habitats directive site (SCI)	< 500 m		5	90.6	No data	No data	No data	No data	No data	No data	
Reu jõe	EE0040384	105	Habitats directive site (SCI)	crosses		1	100	No data	No data	No data	No data	3	1	
Sauga	EE0040362	153	Habitats directive site (SCI)	< 500 m		1	81	1	No data	No data	No data	No data	No data	
Pajura	LV0301700	4141	Birds and habitats directives site (C)	crosses		16	87	14	No data	1	No data	7	2	
Salacas ieleja	LV0302200	6251	Birds and habitats directives site (C)	< 500 m		16	24.5	17	No data	3	No data	8	6	
Vedraugave	LV0518300	238	Habitats directive site (SCI)	< 500 m		3	11	7	5	No data	No data	5	No data	
Lielupes pilsētas pļavas	LV0523100	354	Birds and habitats directives site (C)	< 500 m		3	47.2	14	No data	1	No data		1	
Ilaupeleis Fredo's foras	LTKAU0011	30	Habitats directive site (SCI)	< 1 km	No data	No data	No data	No data		1	No data	No data	No data	
Zuvinto, Zaltysio ir Amalvo pelkas	LTALV8003	14196	Birds directive site (SPA)	< 1 km	No data	No data		27	2	No data	No data	No data	No data	
Zuvinto ezeras ir Buktos miskas	LTALV8005	16462	Habitats directive site (SCI)	< 1 km		16	56.84	No data	No data	1		1	No data	
Kauno maris	LTKAU8008	5773	Birds directive site (SPA)	< 1 km	No data	No data		14	No data	No data	No data	No data	No data	
Kauno maris	LTKAU8007	9026	Habitats directive site (SCI)	< 500 m		6	4.48	No data	No data	2	No data	1	1	
Kauno azuolynas	LTKAU8020	62	Habitats directive site (SCI)	< 1 km	No data	No data		No data	No data	No data	No data	No data	1	
Azuolu bušos miskas	LTMAR0001	859	Habitats directive site (SCI)	< 1 km		4	63	No data	No data	No data	No data	No data	No data	
Neries upe	LTVN0009	2395	Habitats directive site (SCI)	crosses		1	11	No data	No data	1	No data	4	1	

Table 119 – Environmental Consideration Option 2

							Birds listed on Annex I of Council directive TS/405/EEC		Listed on Annex II of Council directive 92/43/EEC					
Option 3 (Yellow)														
Name of site	Site code	Area (ha)	Site type	Railway's proximity to site (distance from railway corridor)	Annex I, habitat types (number)	Annex I, Territory covered by habitat (%)	Birds, Annex I	Regularly occurring Migratory Birds	Mammals	Amphibians	Fishes	Invertebrates	Plants	
Kõnnumaa-Väike	EE0020341	17955	Birds directive site (SPA)	< 500 m	No data	No data	7		1	No data	No data	No data	1	1
Kandla	EE0010103	185	Habitats directive site (SCI)	< 500 m		5	92.6	No data	No data	1	No data	No data	No data	2
Raunkula	EE0010104	823	Habitats directive site (SCI)	<1 km		10	86.8	1	No data	No data	No data	No data	No data	2
Vägrande	EE0080309	100	Habitats directive site (SCI)	< 500 m		4	79.9	No data	No data	No data	No data	No data	1	No data
Pärnu jõe	EE0040345	862	Habitats directive site (SCI)	< 500 m		3	100	No data	No data	No data	No data	4	1	No data
Elva-Võpaku	EE0080318	921	Habitats directive site (SCI)	crosses		10	76.8	No data	No data	1	No data	1	3	3
Mõnaku	EE0080472	48	Habitats directive site (SCI)	< 500 m		4	98.7	1	No data	No data	No data	No data	No data	No data
Andu	EE0010112	43	Habitats directive site (SCI)	<1 km		1	83.7	1	No data	No data	No data	No data	No data	No data
Kärevere	EE0080371	2509	Birds and habitats directives site (CI)	crosses		8	32.5	6	1	No data	No data	4	3	No data
Linezers	LV0025208	127	Habitats directive site (SCI)	<1 km		5	98	1	No data	No data	No data	No data	1	1
Gaujas nacionālais parks	LV0000100	92286	Birds and habitats directives site (CI)	crosses		27	14.32	29	2	3	1	7	10	8
Sēdas purvis	LV0026800	7261	Birds and habitats directives site (CI)	< 500 m		6	12.51	29	3	1	No data	No data	1	No data
Gerlaimes meži	LV0027408	1785	Birds and habitats directives site (CI)	crosses		2	8.5	11	No data	No data	No data	No data	1	1
Ziemeļgaule	LV0006708	21780	Birds and habitats directives site (CI)	crosses		24	18.13	30		2	1	8	8	1
Budos - Prevenisku mākal	LTKA8006	5174	Birds directive site (SPA)	<1 km	No data	No data	8	No data	No data	No data	No data	No data	No data	No data
Kauno mānne	LTKAU0006	5773	Birds directive site (SPA)	<1 km	No data	No data	14	No data	No data	No data	No data	No data	No data	No data
Kauno mānne	LTKAU0007	9026	Habitats directive site (SCI)	< 500 m		8	4.48	No data	No data	2	No data	1	1	No data
Kauno ezuslūņi	LTKAU0026	82	Habitats directive site (SCI)	< 1 km	No data	No data	No data	No data	No data	No data	No data	No data	1	No data
Rauņpads Fredos forā	LTKAU0011	30	Habitats directive site (SCI)	<1 km	No data	No data	No data	No data	1	No data	No data	No data	No data	No data
Sventais upis zemau Andronakio	LTU0010002	1854	Habitats directive site (SCI)	crosses	No data	No data	No data	No data	1	No data	No data	4	1	No data
Varas upis	LTVN0008	2395	Habitats directive site (SCI)	crosses		1	11	No data	No data	1	No data	4	1	No data

Table 120 – Environmental Consideration Option 4

							Birds listed on Annex I of Council directive 79/409/EEC		Listed on Annex II of Council directive 92/43/EEC				
Option 4 (Green)													
Name of site	Site code	Area (ha)	Site type	Railway's proximity to site (distance from railway corridor)	Annex 1, habitat types (number)	Annex 1, Territory covered by habitat (%)	Birds, Annex I	Regularly occurring Migratory Birds	Mammals	Amphibians	Fishes	Invertebrates	Plants
Ohepalu	EE0020205	5928	Birds and habitats directives site (I)	<1 km	13	65	3		1	No data	No data	No data	2
Kõnemaal	EE0060171	22888	Birds directive site (SPA)	< 500 m	No data	No data	13		7	No data	No data	No data	No data
Vooremaa	EE0080171	3750	Birds directive site (SPA)	<1 km	No data	No data	3		10	No data	No data	No data	No data
Kõnemaal	EE0060119	20646	Habitats directive site (SCI)	< 500 m	15	92.75	4	No data		No data	No data	No data	1
Seljamäe	EE0060211	215	Habitats directive site (SCI)	< 500 m	7	71.9	No data	No data		No data	No data	No data	No data
Antu	EE0060212	391	Habitats directive site (SCI)	< 500 m	6	75.8	No data	No data		No data	No data	No data	1
Mustalika	EE0080109	50	Habitats directive site (SCI)	< 500 m	4	54.6	No data	No data		No data	No data	No data	1
Vooremaa järvede	EE0080110	2109	Habitats directive site (SCI)	<1 km	5	67.6	No data	No data	2	No data		2	2
Vapramäe	EE0080309	100	Habitats directive site (SCI)	< 500 m	4	79.9	No data	No data		No data	No data	No data	1
Elva-Vitpalu	EE0080318	926	Habitats directive site (SCI)	crosses	10	86.8	No data	No data	1	No data		1	3
Mõneku	EE0080472	48	Habitats directive site (SCI)	< 500 m	4	58.7	1	No data		No data	No data	No data	No data
Melturu siis	LV0527800	288	Habitats directive site (SCI)	crosses	3	23.1	3	No data		No data	No data	1	No data
Gaujas nacionālais parks	LV0200100	92286	Birds and habitats directives site (I)	crosses	27	14.32	29		2	3	1	7	10
Lielupes pālienās pļavas	LV0523100	354	Birds and habitats directives site (I)	< 500 m	3	47.2	14	No data		1	No data		1
Jaunciems	LV0524600	361	Habitats directive site (SCI)	<1 km	6	52.9	9	No data		No data	No data	2	1
Sēdas purvs	LV0526800	7261	Birds and habitats directives site (I)	< 500 m	6	12.51	29		3	1	No data	No data	1
Garkalnes meži	LV0527400	1785	Birds and habitats directives site (I)	crosses	2	8.5	11	No data		No data	No data	No data	1
Ziemeļgauja	LV0600700	21750	Birds and habitats directives site (I)	crosses	24	15.13	30	No data		2		1	8
Zvīnto, Zaltysio ir Anahlo pelķes	LTALYB003	14196	Birds directive site (SPA)	<1 km	No data	No data	27		2	No data	No data	No data	No data
Zvīnto ezeras ir Bukdos mīskas	LTALY0005	18492	Habitats directive site (SCI)	<1 km	16	55.84	No data	No data		1		1	No data
Kauno marios	LTKAU0008	5773	Birds directive site (SPA)	<1 km	No data	No data	14	No data		No data	No data	No data	No data
Kauno marios	LTKAU0007	9026	Habitats directive site (SCI)	< 500 m	8	4.48	No data	No data		2	No data		1
Naujosios Fredos fortas	LTKAU0011	30	Habitats directive site (SCI)	<1 km	No data	No data	No data	No data		1	No data	No data	No data
Kauno azuolynas	LTKAU0020	62	Habitats directive site (SCI)	< 1 km	No data	No data	No data	No data		No data	No data	No data	1
Azuolu budo mīskas	LTMAR0001	859	Habitats directive site (SCI)	<1 km	4	63	No data	No data		No data	No data	No data	No data
Neries upe	LTVIH0009	2395	Habitats directive site (SCI)	crosses	1	11	No data	No data		1	No data		4

Appendix F – Initial Capex Calculations

Table 121 – Initial Capital Cost (CAPEX) Consolidated Summary

OPTION IDENTIFICATION COST SUMMARY											
Description	Alignment	TOTAL km	PASSENGER			FREIGHT			Constuction Cost (EUR)	Land Cost	Total Cost
			km	hrs	ave kmh	km	hrs	ave kmh			
Option 1											
LT BORDER - TALLINN via KAUNAS/PANEVEZYS/RIGA/PARNU	New	728	701	4,13	170	708	10,38	68	4 835 250 000	46 256 875	4 881 506 875
Option 2											
LT BORDER - TALLINN via KAUNAS/JELGAVA/RIGA/PARNU	Existing	815	788	6,14	128	804	11,56	70	5 023 600 000	53 761 250	5 077 361 250
Option 3											
LT BORDER - TALLINN via KAUNAS/PANEVEZYS/RIGA/VALMIERA/TARTU	New/Existing	818	791	4,81	165	792	11,17	71	5 456 250 000	51 613 500	5 507 863 500
Option 4											
LT BORDER - RIGA via JELGAVA	Existing	885	858	6,74	127	859	11,88	72	5 274 300 000	54 178 500	5 328 478 500

Table 122 – Initial Capital Cost (CAPEX) – Option 1 – Red

[illegible]

Table 123 – Initial Capital Cost (CAPEX) – Option 2 – Orange

[illegible]

Table 124 – Initial Capital Cost (CAPEX) – Option 3 – Yellow

[illegible]

Table 125 – Initial Capital Cost (CAPEX) – Option 4 – Green

[illegible]

APSTIPRINĀTS:
Latvijas Republikas Satiksmes ministrijas
Iepirkuma komisijas
2013. gada ____ sēdē,
protokols Nr. ____
Iepirkuma komisijas priekšsēdētājs

_____ ()



Līdzfinansējusi Eiropas Savienība
Eiropas Transporta tīkls (TEN-T)

ATKLĀTA KONKURSA NOLIKUMS

**Eiropas standarta platuma dzelzceļa līnijas Rail Baltica
Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi
novērtējums**

**(ar 2013.gada 27.februāra, 13.marta, 8.aprīļa un 16.aprīļa
grozījumiem, 29.maija IK lēmumu)**

ID Nr. SAM 2012/12 TEN-T

1. Vispārīgā informācija

1.1. Iepirkuma identifikācijas Nr. SAM 2012/12 TEN-T

1.2. Pasūtītājs:

Pasūtītāja nosaukums	Latvijas Republikas Satiksmes ministrija
Adrese	Gogoļa iela 3, Rīga, LV-1743
Reģistrācijas numurs	90000088687
Banka	Valsts kase
Kods	TRELLV22
Konts	LV33TREL2170389079000
Kontaktpersona	Iepirkuma komisijas sekretāre Dana Osmane
Tālrunis	67 028 342
Fakss	67 028 364
e-pasta adrese	dana.osmane@sam.gov.lv
Darba laiks	P., O., T., C. no 08:15 līdz 17:00, piekdien – no 08:15 līdz 15:45. Pusdienu pārtraukums no 12:30 līdz 13:00.

(ar 2013. gada 8. aprīļa grozījumiem)

- 1.2.1. Atklātais konkurss notiek saskaņā ar Publisko iepirkumu likuma (turpmāk – PIL) noteikumiem.
- 1.2.2. Piedalīšanās atklātajā konkursā ir pretendentu brīvas gribas izpausme. Pasūtītājs visiem pretendentiem rada vienādas iespējas sacensties, lai iegūtu tiesības slēgt iepirkuma līgumu.
- 1.2.3. Iesniedzot savu piedāvājumu, Pretendents pilnībā pieņem šajā atklāta konkursa nolikumā ietvertos nosacījumus un noteikumus.
- 1.2.4. Iepirkums tiek finansēts no Eiropas Komunikāciju tīklu (TEN-T) budžeta un valsts budžeta programmas „Finansējums Eiropas Savienības politiku instrumentu un pārējās ārvalstu finanšu palīdzības līdzfinansēto projektu un pasākumu īstenošanai” finanšu līdzekļiem.
- 1.2.5. Piedāvājums jāiesniedz par visu iepirkuma apjomu.

1.3. Nolikuma saņemšana:

- 1.3.1. Pasūtītājs nodrošina brīvu un tiešu elektronisko pieeju atklāta konkursa (turpmāk – konkurss) dokumentiem un visiem papildus nepieciešamajiem dokumentiem Satiksmes ministrijas mājaslapā: <http://www.sam.gov.lv>.
- 1.3.2. Ar konkursa nolikumu piegādātāji var iepazīties arī uz vietas Satiksmes ministrijas telpās Rīgā, Gogoļa ielā 3, nolikuma 1.2. punktā norādītajā Pasūtītāja darba laikā.

1.4. Piedāvājumu iesniegšanas un atvēršanas vieta, datums, laiks un kārtība:

- 1.4.1. Piegādātāji piedāvājumus var iesniegt līdz 2013. gada 7. jūnija plkst.14.00 Satiksmes ministrijā (turpmāk – ministrija), Administratīvajā departamentā, 303. telpā, Gogoļa ielā 3, Rīgā, LV-1743, iesniedzot personīgi vai atsūtīt pa pastu.
(ar 2013. gada 29. maija Iepirkuma komisijas lēmumu)
- 1.4.2. Piedāvājumus to iesniegšanas secībā iereģistrē saņemto piedāvājumu sarakstā, kur norāda:
 - 1.4.2.1. Pretendenta nosaukumu un adresi;
 - 1.4.2.2. faktisko piedāvājumu iesniegšanas datumu un laiku;
 - 1.4.2.3. atzīmi par piedāvājuma atsaukšanu, ja Pretendents to ir paziņojis rakstveidā.
- 1.4.3. Pretendents, iesniedzot piedāvājumu, var pieprasīt apliecinājumu tam, ka piedāvājums saņemts (ar norādi par piedāvājuma saņemšanas laiku).
- 1.4.4. Piedāvājumi, kas iesniegti pēc minētā termiņa, netiks vērti vai jā un vērtēti. Pasta sūtījumam jābūt nogādātam ministrijā līdz 1.4.1. apakšpunktā norādītajam termiņam. Pasta sūtījumi, kas tiks saņemti pēc norādītā termiņa, netiks vērti vai jā un neatplēstā veidā tiks atdoti vai nosūtīti atpakaļ iesniedzējam.

- 1.4.5. Pretendents var atsaukt vai grozīt savu piedāvājumu līdz piedāvājumu iesniegšanas termiņa beigām, ierodoties personīgi ministrijā, Administratīvajā departamentā, 303. telpā, Gogoļa ielā 3, Rīgā, LV-1743. Piedāvājuma atsaukšanai ir bezierunu raksturs un tā izslēdz Pretendentu no tālākās līdzdalības konkursā. Piedāvājuma grozīšanas gadījumā par piedāvājuma iesniegšanas laiku tiks uzskatīts otrā piedāvājuma iesniegšanas brīdis.
- 1.4.6. Pēc piedāvājumu iesniegšanas termiņa beigām Pretendents nevar grozīt savu piedāvājumu.
- 1.4.7. Iesniegtie iepirkuma piedāvājumi ir pasūtītāja īpašums un netiek atdoti Pretendentiem, izņemot gadījumus, ja nokavēts piedāvājuma iesniegšanas termiņš vai piedāvājuma iesaiņojums nav noformēts atbilstoši nolikuma prasībām.
- 1.4.8. Piedāvājumi tiks atvērti ministrijā, Gogoļa ielā 3, Rīgā, LV-1743, 4. stāva lielajā sēžu zālē pēc piedāvājumu iesniegšanas termiņa beigām. Piedāvājumu atvēršana ir atklāta.

1.5. Piedāvājuma nodrošinājums:

- 1.5.1. Pretendentiem, kuri iesniegs piedāvājumu, jāiesniedz no savas puses neatsaucamu piedāvājuma nodrošinājumu LVL 10 000,00 (desmit tūkstoši lati un 00 santīmi) apmērā un tam jābūt spēkā 6 (sešus) mēnešus no piedāvājuma atvēršanas dienas.
- 1.5.2. Piedāvājuma nodrošinājums drīkst būt kā:
 - 1.5.2.1. bankas garantija, kuras nosacījumiem un izsniegšanas kritērijiem jāatbilst šī nolikuma 1.5.3. apakšpunktā noteiktajām prasībām;
 - 1.5.2.2. apdrošināšanas polise, kuras nosacījumiem un izsniegšanas kritērijiem jāatbilst šī nolikuma 1.5.4. apakšpunktā noteiktajām prasībām.
- 1.5.3. Bankas garantijai jāatbilst šādiem noteikumiem:
 - 1.5.3.1. garantijas devējam jāaņem samaksāt Pasūtītājam piedāvājuma nodrošinājuma summu PIL 52. panta septītajā daļā noteiktajos gadījumos;
 - 1.5.3.2. garantijai jābūt spēkā iepirkuma nolikumā noteiktajā termiņā;
 - 1.5.3.3. garantijai jābūt no Pretendenta puses neatsaucamai;
 - 1.5.3.4. Pasūtītājam nav jāpieprasa garantijas summa no Pretendenta pirms prasības iesniegšanas garantijas devējam;
 - 1.5.3.5. garantija pakļaujas Starptautiskās tirdzniecības kameras noteikumiem „*The ICC Uniform Rules for Demand Guarantees*”, ICC Publication N0.758, bet attiecībā uz jautājumiem, kurus neregulē minētie Starptautiskās tirdzniecības kameras noteikumi, šī garantija pakļaujas Latvijas Republikas normatīvajiem aktiem. Prasības un strīdi, kas saistīti ar šo garantiju, izskatāmi Latvijas Republikas tiesā saskaņā ar Latvijas Republikas normatīvajiem tiesību aktiem.
- 1.5.4. Apdrošināšanas polisei jāatbilst šādiem noteikumiem:
 - 1.5.4.1. apdrošinātājam jāaņem samaksāt Pasūtītājam piedāvājuma nodrošinājuma summu PIL 52. panta septītajā daļā noteiktajos gadījumos;
 - 1.5.4.2. apdrošināšanas polisei jābūt spēkā iepirkuma nolikumā noteiktajā termiņā un izpildāmai no piedāvājuma atvēršanas brīža, t.i., apdrošināšanas prēmijai jābūt samaksātai uz piedāvājuma iesniegšanas brīdi, ko pierāda piedāvājumā iekļautais samaksu apliecinātais dokuments;
 - 1.5.4.3. polisei jābūt no Pretendenta puses neatsaucamai;
 - 1.5.4.4. Pasūtītājam nav jāpieprasa piedāvājuma nodrošinājuma summa no Pretendenta pirms prasības iesniegšanas apdrošinātājam;
 - 1.5.4.5. prasības un strīdi, kas saistīti ar šo apdrošināšanas polisi, izskatāmi Latvijas Republikas tiesā saskaņā ar Latvijas Republikas normatīvajiem tiesību aktiem.
- 1.5.5. Ja Pretendents ir piegādātāju apvienība vai personālsabiedrība, tad piedāvājuma nodrošinājumam jābūt noformētam tā, ka tas attiecas uz visiem Pretendenta dalībniekiem (Pretendenta nosaukumam piedāvājuma nodrošinājuma dokumentā jābūt tādā pašā kā Pretendenta nosaukumam piedāvājumā);

- 1.5.6. Pretendenta piedāvājumu neizskata, ja Pretendents nav iesniedzis piedāvājuma nodrošinājumu vai arī iesniegtais piedāvājuma nodrošinājums neatbilst šī nolikuma prasībām.
- 1.5.7. Piedāvājuma nodrošinājums ir spēkā līdz dienai, kad Pretendents, kura piedāvājums izraudzīts saskaņā ar piedāvājuma izvēles kritēriju, pēc līguma noslēgšanas iesniedz līguma izpildes nodrošinājumu.
- 1.5.8. Piedāvājuma nodrošinājumu Pasūtītājs atdod Pretendentiem šādā kārtībā pēc Pretendenta pieprasījuma:
- 1.5.8.1. pēc Līguma noslēgšanas;
- 1.5.8.2. pēc lēmuma pieņemšanas par konkursa pārtraukšanu vai izbeigšanu, neizvēloties nevienu piedāvājumu.

1.6. Piedāvājumu sagatavošana, noformēšana un iesniegšana:

- 1.6.1. Piedāvājums jāsatavo latviešu valodā un jāiesniedz 4 (četros) eksemplāros – 1 (viens) oriģināls un 3 (trīs) kopijas, katrs savā iesējumā. Uz iesējuma pirmās lapas jābūt norādei „Oriģināls”, vai „Kopija”.
- 1.6.2. Piedāvājums sastāv no šādām daļām:
- 1.6.2.1. pretendentu atlases dokumenti atbilstoši nolikuma 4.3.punktam;
- 1.6.2.2. tehniskais piedāvājums atbilstoši Nolikuma 4.4.punktam;
- 1.6.2.3. finanšu piedāvājums atbilstoši Nolikuma 4.5.punktam
- 1.6.3. Piedāvājuma oriģināls, kopijas un piedāvājuma nodrošinājuma oriģināls jāiesaiņo kopā. Piedāvājumu iesniedz aizlīmētā, aizzīmogatā iepakojumā, uz kura norāda:

Neatvērt līdz 2013. gada _____ plkst. ____: LATVIJAS REPUBLIKAS SATIKSMES MINISTRIJA Gogoļa iela 3, Rīga, LV-1743 IEPIRKUMA nosaukums id. nr. SAM 2012/12 TEN-T KONKURSA PIEDĀVĀJUMS pretendenta nosaukums, juridiskā adrese, tālrunis un fakss
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- 1.6.4. Ja iepakojums nav noformēts atbilstoši 1.6.3.apakšpunkta prasībām, Pasūtītājs neuzņemas atbildību par tā nesapeņemšanu vai pirmstermiņa atvēršanu.
- 1.6.5. Visa nolikumā noteiktā informācija Pretendentam jāiesniedz rakstiski papīra formātā un atbilstoši nolikuma pielikumos pievienotajās veidlapās dotajai formai un tekstam.
- 1.6.6. Piedāvājuma dokumentiem jābūt latviešu valodā. Ārvalstu institūciju izdotie dokumenti var būt svešvalodā ar pievienotu tulkojumu latviešu valodā. Par dokumentu tulkojuma atbilstību oriģinālam atbild Pretendents.
- 1.6.7. Piedāvājumā drīkst iesniegt dokumentu oriģinālus vai to atvasinājumus. Piedāvājumā vai pēc iepirkuma komisijas pieprasījuma drīkst iesniegt tikai tādus dokumentu oriģinālus, kuriem ir juridisks spēks. Lai dokuments iegūtu juridisku spēku, tam jābūt izdotam un noformētam atbilstoši Dokumentu juridiskā spēka likumam, bet ārvalstī izsniegtam publiskam dokumentam jābūt noformētam vai legalizētam atbilstoši Dokumentu legalizācijas likuma prasībām. Iesniedzamie dokumenti jānoformē atbilstoši 28.09.2010. MK noteikumu Nr.916 "Dokumentu izstrādāšanas un noformēšanas kārtība" prasībām
- 1.6.8. Piedāvājuma dokumentos nedrīkst būt dzēsumi, aizkrāsojumi, neatrunāti labojumi, svītrojumi un papildinājumi. Kļūdainie ieraksti jāpārsvītro un jebkurš labojums jāatrunā atbilstoši Ministru kabineta 2010.gada 28.septembra noteikumiem Nr.916 "Dokumentu izstrādāšanas un noformēšanas kārtība" prasībām.
- 1.6.9. Piedāvājums jāiesniedz sanumurētām lapām, caurauklots, ar uzlīmi, kas nostiprina auklu. Uz uzlīmes jābūt lapu skaitam, Pretendenta zīmoga nospiedumam, Pretendenta pārstāvja amata nosaukumam, parakstam un tā atšifrējumam.
- 1.6.10. Piedāvājums jāparaksta personai, kura likumiski pārstāv Pretendentu vai ir pilnvarota pārstāvēt Pretendentu šajā iepirkuma procedūrā.

- 1.6.11. Piedāvājuma grozījumi vai paziņojums par piedāvājuma atsaukšanu jāiesaiņo, jānoformē un jāiesniedz tāpat kā piedāvājums, attiecīgi norādot „*Piedāvājuma grozījumi*” vai „*Piedāvājuma atsaukums*”.
- 1.6.12. Oriģinālā un kopiju eksemplāros iekļautās informācijas nesakrītību gadījumā priekšroka ir oriģināla eksemplārā iekļautajai informācijai.
- 1.6.13. Tehniskais un finanšu piedāvājums jāiesniedz arī elektroniskā formā (vienreiz rakstāmā CD), ierakstīts ar MS Officevai Adobe Acrobat rīkiem nolasāmā formātā, ar pieejamu teksta meklēšanas funkcionalitāti. Uz CD jābūt uzrakstītam Pretendenta nosaukumam un iepirkuma identifikācijas numuram.
- 1.6.14. Pretendents sedz visus izdevumus, kas saistīti ar piedāvājuma sagatavošanu un iesniegšanu. Pasūtītājs nav atbildīgs, nesedz un nekompensē šos izdevumus neatkarīgi no konkursa norises un rezultāta.
- 1.6.15. Ja Pretendents Pasūtītājam nodevis kādu informāciju, norādot, ka tā ir komercnoslēpums vai konfidenciāla informācija, Pasūtītājs šo informāciju neatklāj. Informācijas pieejamības ierobežošana neattiecas uz informāciju, kas ir vispārpieejama saskaņā ar PIL, kā arī citu normatīvo aktu prasībām.

1.7. Cita informācija:

- 1.7.1. Ja ieinteresētais piegādātājs ir laikus pieprasījis papildu informāciju par konkursa dokumentos iekļautajām prasībām attiecībā uz piedāvājuma sagatavošanu, iesniegšanu vai pretendentu atlasī, tad pasūtītājs to sniegs piecu dienu laikā, bet ne vēlāk kā 6 (sešas) dienas pirms piedāvājumu iesniegšanas termiņa beigām, nosūtot papildu informāciju visiem pretendentiem un publicējot to Pasūtītāja mājaslapā: <http://www.sam.gov.lv>. Pretendentam ir pienākums pārbaudīt jaunas informācijas esamību šajā tīmekļa vietnē.
- 1.7.2. Papildu informācijas pieprasījumi iesniedzami, nosūtot tos pa pastu vai faksu un e-pastu nolikuma 1.2. punktā norādītajai kontaktpersonai. Pieprasījumā jānorāda pretendenta nosaukums, reģistrācijas numurs, adrese, pieprasītāja amats, vārds, uzvārds, kontaktārunu, faksa numuri un e-pasta adrese. Ja nepieciešams, Pasūtītājam ir tiesības pieprasīt, lai ieinteresētā persona pieprasījuma oriģinālu nosūta pa pastu uz nolikuma 1.2. punktā norādīto adresi.
- 1.7.3. Ja Pasūtītājam rodas nepieciešamība grozīt iepirkuma procedūras dokumentus, tas ne vēlāk kā vienu dienu pēc tam, kad paziņojums par grozījumiem iesniegts Iepirkumu uzraudzības birojam publicēšanai, ievieto informāciju par grozījumiem Pasūtītāja mājaslapā: <http://www.sam.gov.lv>. Pasūtītājs, izdarot grozījumus iepirkuma procedūras dokumentos, ievēro PIL 29.panta nosacījumus piedāvājumu iesniegšanas termiņiem.
- 1.7.4. Pretendents, iesniedzot piedāvājumu, apliecina, ka ir pilnībā iepazinies un piekrīt iepirkuma procedūras dokumentos noteiktajām prasībām un piekrīt tās izpildīt.
- 1.7.5. Pretendents nevar iesniegt piedāvājuma variantus.
- 1.7.6. Pretendents var balstīties uz citu uzņēmēju iespējām, ja tas ir nepieciešams konkrētā līguma izpildei, neatkarīgi no savstarpējo attiecību tiesiskā rakstura. Šādā gadījumā Pretendents pierāda Pasūtītājam, ka viņa rīcībā būs nepieciešamie resursi, iesniedzot šo uzņēmēju apliecinājumu vai vienošanos par nepieciešamo resursu nodošanu Pretendenta rīcībā.

1.8. Pretendents

- 1.8.1. Piedāvājumu drīkst iesniegt:
 - 1.8.1.1. piegādātājs, kas ir juridiska vai fiziska persona (turpmāk tekstā – Pretendents);
 - 1.8.1.2. piegādātāju apvienība. Pretendenta piedāvājumam jāpievieno visu apvienības dalībnieku parakstīts apliecinājums vai vienošanās, iekļaujot tajā šādus nosacījumus:
 - 1.8.1.2.1. ka katrs apvienības dalībnieks atsevišķi un visi kopā ir atbildīgi par iepirkuma līguma izpildi;
 - 1.8.1.2.2. norādot galveno dalībnieku, kurš piegādātāju apvienības dalībnieku vārdā pilnvarots parakstīt piedāvājumu, iepirkuma līgumu un citus dokumentus, saņemt un izdot

rīkojumus piegādātāja apvienības dalībnieku vārdā, kā arī saņemt maksājumus no Pasūtītāja;

1.8.1.2.3. ja piegādātāju apvienības piedāvājumu izraudzīs saskaņā ar piedāvājuma izvēles kritēriju, tad pirms iepirkuma līguma noslēgšanas piegādāju apvienībai jānoslēdz sabiedrības līgums, ievērojot Civillikuma 2241. – 2280. panta normas, un viens sabiedrības līguma eksemplārs (oriģināls vai kopija, ja tiek uzrādīts oriģināls) jāiesniedz Pasūtītājam. Sabiedrības līgumu var aizstāt ar pilnsabiedrības reģistrēšanu Komercreģistrā, iesniedzot reģistrācijas dokumenta kopiju;

1.8.1.3. personālsabiedrība (pilnsabiedrība vai komandītsabiedrība) (turpmāk tekstā arī – Pretendents) norādot visus sabiedrības dalībniekus.

2. Informācija par iepirkuma priekšmetu

2.1. Iepirkums priekšmeta apraksts un apjoms:

2.1.1. Iepirkuma priekšmets ir detalizēta tehniskā izpēte, ietverot ietekmes uz vidi novērtējuma ziņojuma sagatavošanu, detalizētu tehnisko izpēti un tehnisko risinājumu sagatavošanu, finanšu un ekonomisko aprēķinu veikšanu.

2.1.2. Iepirkuma nomenklatūra (CPV kods): 73210000-7 (Pētniecības konsultāciju pakalpojumi), 71410000-5 (Pilsētplānošanas pakalpojumi), 71320000-7 (Inženiertehniskās projektēšanas pakalpojumi).

2.2. Līguma izpildes laiks un vieta:

2.2.1. Līguma izpildes termiņš: 28 (divdesmit astoņi) mēneši no līguma noslēgšanas dienas.

2.2.2. Darbu izpildes vieta ir Latvija.

3. Pretendentu atlases un kvalifikācijas prasības .

3.1. Nosacījumi pretendenta dalībai atklātajā konkursā:

Pasūtītājs izslēdz Pretendentu no turpmākās dalības iepirkuma procedūrā, ja uz Pretendentu (un attiecīgi arī personu, uz kuras iespējām Pretendents balstās, lai apliecinātu kvalifikācijas atbilstību, vai uz jebkuru personu apvienības dalībnieku, vai uz Pretendenta norādīto apakšuzņēmēju, kura sniedzamo pakalpojumu vērtība ir vismaz 20 procenti no kopējās iepirkuma līguma vērtības) ir attiecināms kāds no PIL 39.pantā minētajiem nosacījumiem.

3.2. Nosacījumi Pretendenta profesionālās darbības veikšanai:

Pretendentam (tajā skaitā personu apvienības dalībniekam, apakšuzņēmējam) jābūt reģistrētam Komercreģistrā vai līdzvērtīgā reģistrā ārvalstīs, licencētam vai sertificētam atbilstoši attiecīgās valsts normatīvo aktu prasībām.

3.3. Pretendenta tehniskās un profesionālās spējas:

3.3.1. Pretendents kā galvenais uzņēmējs (līguma slēdzējs) vai vismaz viens no personu apvienības dalībniekiem kā galvenais uzņēmējs (līguma slēdzējs) pēdējo 3 (trīs) gadu laikā ir īstenojis līdzvērtīgus līgumus. Par līdzvērtīgiem līgumiem un līdzvērtīgu pieredzi tiks uzskatīta vismaz šāda pieredze:

3.3.1.1. vismaz 2 (divi) īstenoti būvprojektēšanas līgumi, kur veikta jaunas liela mēroga Eiropas standarta platuma dzelzceļa līnijas vai esošas Eiropas standarta platuma dzelzceļa līnijas būvprojektēšana vai izpēte, un katra noslēgtā līguma summa nav mazāka par LVL 100 000,00 (neieskaitot PVN). Ar liela mēroga dzelzceļa līnijas būvprojektu tiek saprasts tāds būvprojekts, kura būvizmaksas pārsniedz LVL 30 000 000,00 (neieskaitot PVN).

3.3.1.2. vismaz 2 (divi) īstenoti konsultāciju projekti, kur veikts liela mēroga transporta infrastruktūras objekta ietekmes uz vidi novērtējums. Ar liela mēroga transporta infrastruktūru tiek saprasts tāds transporta infrastruktūras objekts, kurš ietverts maģistrālajā

autoceļu vai dzelzceļu tīklā, un kura būvniecības izmaksas pārsniedz LVL 30 000 000,00 (neieskaitot PVN).

3.3.2. Līguma izpildē jāiesaista šāds personāls (speciālisti) ar vismaz šādu minimālo pieredzi:

Nr.	Līguma izpildē iesaistītie speciālisti	Izglītība, pieredze un prasmes
1.	Projekta vadītājs	▪ Augstākā izglītība transporta būvju jomā vai ekonomikā, vai biznesa vadībā (bakalaura grāds, profesionālā augstākā vai maģistra vai doktora grāds); ▪ vismaz desmit gadu pieredze projektu vadībā; ▪ vismaz piecu gadu pieredze izpētes vai būvprojektēšanas projektu vadībā transportbūvju jomā; ▪ pieredze projekta vadītāja amatā vismaz vienā izpētes vai būvprojektēšanas projekta vadībā, kura ietvaros veikta izpēte vai būvprojektēšana jaunai dzelzceļa līnijai vismaz 50 km.
2.	Ekonomists	▪ Vismaz maģistra grāds ekonomikā, finansēs vai uzņēmējdarbības vadībā ▪ pēdējo piecu gadu laikā veiktas vismaz divas izmaksu-ieguvumu analīzes jaunbūvējamai transportbūvei atbilstoši Eiropas Komisijas 2008. gada Vadlīnijām investīciju projektu izmaksu-ieguvumu analīzes veikšanai.
3.	Vilcienu kustības vadības sistēmu projektēšanas speciālists	▪ Inženiera kvalifikācija vilcienu kustības vadības sistēmu projektēšanā ▪ pieredze ERTMS track side (Eiropas vilcienu kustības vadības sistēmas lauka ierīču) projektēšanā - vismaz viens pabeigts būvprojektēšanas projekts.
4.	Dzelzceļa elektroapgādes un kontakttīklu speciālists	▪ Inženiera kvalifikācija transporta elektroapgādē un/vai kontakttīklos ▪ pieredze kā dzelzceļa elektroapgādes un kontakttīklu projektēšanas ekspertam vismaz divos projektos, no kuriem vismaz viens ir pabeigts pēdējo piecu gadu laikā.
5.	Dzelzceļa projektēšanas speciālists	▪ Inženiera kvalifikācija transporta būvju jomā; ▪ vismaz piecu gadu pieredze kā dzelzceļa būvprojektu vadītājam vismaz divos projektos; ▪ pieredze būvprojektēšanā atbilstoši SITS un 1435mm standarta dzelzceļa līnijās.
6.	Tiltu projektēšanas speciālists	▪ Inženiera kvalifikācija transporta būvju jomā ▪ vismaz 5 gadu pieredze kā tiltu projektēšanas atbildīgajam speciālistam (būvprojekta sadaļas vadītājs); ▪ pieredze kā tiltu projektēšanas inženierim vismaz divos projektos, no kuriem vismaz viens ir pabeigts, un no kuriem vismaz viens ir projekts dzelzceļa jomā, un no kuriem vismaz viens ir daudzlīmeņu šķērsojumu projektēšana.

7.	Tuneļu projektēšanas speciālists	▪ Inženiera kvalifikācija transporta būvju jomā; ▪ vismaz piecu gadu pieredze kā tuneļu projektēšanas atbildīgajam speciālistam; ▪ pieredze kā autoceļu vai dzelzceļu tuneļu projektēšanas ekspertam vismaz divos projektos, no kuriem vismaz viens ir pabeigts, un no kuriem viens ir tuneļa būvprojekts pilsētvidē.
8.	Autoceļu projektēšanas speciālists	▪ Inženiera kvalifikācija transporta būvju jomā ▪ vismaz piecu gadu pieredze kā valsts galveno autoceļu būvprojektu vadītājam; ▪ vismaz divu autoceļu būvprojektu izstrādes vadībā pēdējo piecu gadu laikā.
9.	Teritorijas attīstības plānošanas dokumentu izstrādes vadītājs	▪ Augstākā izglītība (bakalaura grāds, profesionālā augstākā vai maģistra vai doktora grāds); ▪ vismaz piecu gadu pieredze teritorijas attīstības plānošanā; ▪ praktiskā pieredze vismaz piecu vietēja līmeņa teritorijas attīstības plānošanas dokumentu izstrādē; ▪ praktiskā pieredze vismaz viena nacionāla vai reģionāla līmeņa teritorijas attīstības plānošanas dokumenta izstrādē; ▪ praktiskā pieredze Latvijas Republikā un LR normatīvo aktu pārzināšana.
10.	Dzelzceļa satiksmes vadības speciālists	▪ Inženiera kvalifikācija dzelzceļa ekspluatācijas vai transporta plānošanas jomā; ▪ Vismaz piecu gadu pieredze dzelzceļa satiksmes vadības un plānošanas jomā (dzelzceļa pārvadājumu plānošana un kustības grafiku izstrāde).
11.	Vides speciālists	▪ Augstākā izglītība vides zinātņu jomā (bakalaura grāds, profesionālā augstākā vai maģistra vai doktora grāds); ▪ pēdējo piecu gadu laikā pieredze kā vides ekspertam vismaz divos ietekmes uz vidi novērtējuma līnijbūvju projektos, no kuriem vismaz viens ir pabeigts; ▪ pieredze kā ietekmes uz vidi novērtējuma ziņojuma sagatavošanas projekta vadītājam vismaz vienam projektam transportbūvju jomā.

3.3.3. Piesaistītajiem speciālistiem ir jābūt pieejamiem konkursa rezultātā noslēdzamā līguma izpildei visu līguma darbības laiku.

3.3.4. Visiem iesaistītajiem speciālistiem tieši vai ar tulka palīdzību ir jābūt spējīgiem komunicēt (gan mutiski, gan rakstiski) latviešu valodā. Pretendentam visā līguma izpildes laikā ir jānodrošina tulka pakalpojumi.

3.4.Prasības attiecībā uz pretendenta saimniecisko un finansiālo stāvokli:

Pretendenta vidējais gada finanšu apgrozījums bez PVN iepriekšējo trīs gadu (t.i. 2009.-2011.g.) laikā ir vismaz Pretendenta finanšu piedāvājumā norādītās līgumcenas apmērā. Pretendenta, kas

dibināts vēlāk par 2009.gadu, gada vidējais finanšu apgrozījums nostrādātajā periodā ir vismaz Pretendenta finanšu piedāvājumā norādītās līgumcenas apmērā.

4. Iesniedzamie dokumenti

4.1. Piedāvājuma nodrošinājums atbilstoši 1.5.punktā minētajām prasībām.

4.2. Pieteikums dalībai konkursā:

4.2.1. Pretendenta pieteikums dalībai konkursā apliecina Pretendenta apņemšanos piedalīties konkursā un nodrošināt Pasūtītāja prasību realizāciju saskaņā ar nolikuma un tehniskās specifikācijas prasībām. Pieteikumu paraksta persona vai personas, kas ir pilnvarotas to darīt Pretendenta vārdā. Katras personas parakstam jābūt atšifrētam (jānorāda pilns vārds, uzvārds un amats).

4.2.2. Pretendents pieteikumu dalībai konkursā sagatavo saskaņā ar nolikuma 2.pielikumu.

4.3. Pretendenta atlases dokumenti:

4.3.1. Dokuments, kas apliecina, ka Pretendents ir reģistrēts likumā noteiktajā kārtībā (šajā nolikuma punktā norādītie dokumenti jāiesniedz arī par katru apakšuzņēmēju un par katru personu apvienības dalībnieku, ja Pretendents būs personu apvienība):

4.3.1.1. Latvijas Republikas Komercreģistrā reģistrētiem uzņēmumiem (uzņēmēj sabiedrībām) – Uzņēmumu reģistra Komercreģistra iestādes izsniegta Pretendenta reģistrācijas apliecības kopija;

4.3.1.2. Ārvalstu uzņēmumiem (uzņēmēj sabiedrībām) kompetentas attiecīgās valsts institūcijas izsniegts dokuments, kas apliecina, ka Pretendents ir reģistrēts likumā noteiktajā kārtībā;

4.3.2. Apliecinājums vai vienošanās atbilstoši 1.8.1.2. apakšpunkta prasībām;

4.3.3. Uzņēmumu reģistra izziņas vai cita dokumenta apliecināta kopija par:

4.3.3.1. Pretendenta likumiskā pārstāvja vai pilnvarotās personas tiesībām pārstāvēt komercsabiedrību, parakstot piedāvājumu;

4.3.3.2. komercsabiedrības likumiskā pārstāvja vai pilnvarotās personas tiesībām pārstāvēt komersantu, kura vārdā persona ir parakstījusi kādu no šādiem dokumentiem: 1) nolikuma 1.8.1.2. apakšpunktā minēto vienošanos, 2) jebkura veida apliecinājumu, kas izsniegts atbilstoši PIL 41.panta trešās daļas un 42.panta trešās daļas noteikumiem;

4.3.4. atbilstoši nolikuma 4.3.9.apakšpunktā noteiktajām prasībām aizpildīta tabula par Pretendenta pieredzi;

4.3.5. atsaukmes no pasūtītājiem atbilstoši nolikuma 4.3.10.apakšpunkta prasībām;

4.3.6. informācija par līguma izpildē iesaistīto personālu (speciālistiem) atbilstoši nolikuma 4.3.11.apakšpunkta prasībām;

4.3.7. Komisija ir tiesīga pieprasīt Pretendentam, kuram būtu piešķiramas līguma slēgšanas tiesības, 10 (desmit) darba dienu laikā iesniegt šādus dokumentus:

4.3.7.1. Latvijas Republikas Uzņēmumu reģistra vai līdzvērtīgas iestādes citā valstī, kur pretendents (tajā skaitā personu apvienības dalībnieki, apakšuzņēmēji) reģistrēti, izziņa, kas izdota ne agrāk kā 1 (vienu) mēnesi pirms iesniegšanas dienas un kas apliecina, ka Pretendents (tajā skaitā personu apvienības dalībnieki, apakšuzņēmēji) nav pasludināti par maksātnespējīgiem, neatrodas likvidācijas stadijā un to saimnieciskā darbība nav apturēta vai pārtraukta (PIL 39.panta astotajā daļā noteiktajos gadījumos);

4.3.7.2. izziņu, kuru izdevis Valsts ieņēmumu dienests un kura apliecina, ka pretendents vai PIL 39.panta pirmās daļas 11.punktā minētajai personai (neatkarīgi no tā, vai tie reģistrēti Latvijā vai Latvijā atrodas to pastāvīgā dzīvesvieta) Latvijā nav Valsts ieņēmumu dienesta administrēto nodokļu parādu, tajā skaitā valsts sociālās apdrošināšanas obligāto iemaksu parādu, kas kopsummā pārsniedz 100 latus;

4.3.7.3. izziņu, ka ārvalstī reģistrētam Pretendentam un PIL 39.panta pirmās daļas 11.punktā minētajām personām (ja tie ir reģistrēti ārvalstī), attiecīgajā ārvalstī nav nodokļu parādu, tajā skaitā valsts sociālās apdrošināšanas obligāto iemaksu parādu, kas kopsummā pārsniedz 100 (simts) latus.

- 4.3.7.4. Ja ārvalstīs minētās izziņas netiek izdotas, tās aizstāj ar zvērestu vai, ja zvēresta došanu attiecīgās valsts normatīvie akti neparedz, - ar paša Pretendenta apliecinājumu kompetentai izpildvaras vai tiesu varas iestādei, zvērinātam notāram vai kompetentai attiecīgās nozares organizācijai Pretendenta valstī.
- 4.3.8. Gadījumā, ja pretendents 4.3.7.punktā minētās izziņas ir iesniedzis kopā ar piedāvājumu, un dienā, kad komisija pieņem lēmumu par līguma slēgšanas tiesību piešķiršanu, termiņš minētajām izziņām no iesniegšanas dienas pārsniedz 1 mēnesi, pasūtītājam ir tiesības pieprasīt Pretendentam iesniegt izziņas atkārtoti PIL noteiktajā kārtībā.
- 4.3.9. Informācija par pretendenta pieredzi, kas apliecina nolikuma 3.3.1. apakšpunkta prasību, tabulā norādot pasūtītāju un tā kontaktinformāciju, pakalpojumu sniegšanas laiku un īsu projekta aprakstu (projekta aprakstā norāda arī projekta finanšu apjomu).

Nr.	Pasūtītājs	Pakalpojumu sniegšanas (uzsākšanas, pabeigšanas) laiks (gads/mēnesis)	Pasūtītāja kontaktpersona atsauksmju iegūšanai (tālrunis, e-pasts)	Īss pakalpojuma apraksts (tajā skaitā pakalpojuma finanšu apjoms un projekta ietvaros veiktie darbi, būves paredzamās būvniecības izmaksas)

- 4.3.10. Atsauksmes no pasūtītājiem, kas piedāvājumā norādīti saskaņā ar nolikuma 4.3.9.punktu, kas apliecina Pretendenta atbilstību katrai no nolikuma 3.3.1.apakšpunkta prasībās ietvertā projekta īstenošanas pieredzei. Atsauksmē jābūt ietvertai visai nepieciešamajai informācijai, lai pasūtītājs varētu izvērtēt Pretendenta atbilstību attiecīgajai nolikuma prasībai, kā arī norādītai kontaktpersonai un kontaktinformācijai.
- 4.3.11. Šāda informācija par līguma izpildē iesaistīto personālu (speciālistiem), kas apliecina 3.3.2. apakšpunkta prasību izpildi:
- 4.3.11.1. sertifikāti vai licences, izglītību apliecinošie dokumenti (kopijas);
- 4.3.11.2. Pretendenta piedāvāto speciālistu pašrocīgi parakstīts CV atbilstoši formai (Pielikums Nr.3);
- 4.3.11.3. citi dokumenti, kas apliecina atbilstību izvirzītajām prasībām.
- 4.3.12. Pretendenta, visu personu apvienības vai personālsabiedrības dalībnieku un piesaistītā apakšuzņēmēja (ja Pretendents plāno piesaistīt apakšuzņēmējus) pēdējo trīs gadu (t.i. 2009.-2011.g.) peļņas vai zaudējumu aprēķinu apliecinātas kopijas.
- 4.3.13. Nolikuma 4.3.7.apakšpunktā noteiktās izziņas Pretendents iesniedz komisijas noteiktajā termiņā, kas nav īsāks par 10 (desmit) darba dienām. Pretendenti, kuri piedāvājumu iesniedz atbilstoši šī nolikuma 1.8.1.2., 1.8.1.3. vai 1.7.6.apakšpunkta prasībām, 4.3.7.apakšpunktā noteiktos dokumentus iesniedz par visiem dalībniekiem un personām, uz kuru iespējām Pretendents balstās, lai apliecinātu, ka tā kvalifikācija atbilst nolikumā noteiktajām prasībām (PIL 39.p.8.d.). Pretendents, kura apakšuzņēmēji atbilst nolikuma 6.punkta prasībām, 4.3.7.apakšpunktā noteiktās izziņas iesniedz par katru atbilstoši 6.punkta prasībām norādīto apakšuzņēmēju.
- 4.3.14. Pretendents savā piedāvājumā norāda visus tos apakšuzņēmējus, kuru sniedzamo pakalpojumu vērtība ir 20 procenti no kopējās iepirkuma līguma vērtības vai lielāka, un katram šādam apakšuzņēmējam izpildei nododamo pakalpojumu līguma daļu.

4.4. Tehniskais piedāvājums:

- 4.4.1. Tehniskais piedāvājums jā sagatavo atbilstoši tehniskajai specifikācijai (nolikuma 1.pielikums).
- 4.4.2. Pretendents sagatavo tehnisko piedāvājumu, tajā iekļaujot šādu informāciju par iepirkuma līguma izpildi:
- 4.4.2.1. Pakalpojuma izpildes apraksts, sniedzot informāciju par piedāvāto risinājumu atbilstību nolikumam, t.sk. tehniskajai specifikācijai.
- 4.4.2.2. Pakalpojumu sniegšanas metožu apraksts.

4.4.2.3. Pakalpojuma īstenošanas darbu organizācijas un kvalitātes nodrošināšanas sistēmas apraksts.

4.5. Finanšu piedāvājums:

- 4.5.1. Pretendenta finanšu piedāvājumā piedāvātajai līgumcenai ir jābūt norādītai eiro (EUR). Pievienotās vērtības nodokļa summas, ja Pretendents ir pievienotās vērtības nodokļa maksātājs, piedāvātajai cenai jānorāda atsevišķi.
- 4.5.2. Visām Pretendenta izmaksām, kas saistītas ar iepirkuma līguma izpildi, jābūt iekļautām piedāvātajā cenā. Līgumcena tiek fiksēta uz visu līguma izpildes laiku un netiks pārrēķināta.
- 4.5.3. Finanšu piedāvājums jā sagatavo atbilstoši nolikumam pievienotajai formai (4.pielikums).
- 4.5.4. Finanšu piedāvājumam pievieno piedāvājuma nodrošinājuma (bankas garantija vai apdrošināšanas polise) kopiju.

5. Piedāvājumu vērtēšana

5.1. Pretendentu atlase:

- 5.1.1. Pretendentu atlases laikā iepirkuma komisija vērtē Pretendentu atlases dokumentus saskaņā ar nolikuma 3.punktu un 4.punktu, lai pārliecinātos, vai Pretendents atbilst noteiktajām Pretendentu atlases un kvalifikācijas prasībām.
- 5.1.2. Iepirkuma komisija atlasa tos pretendentes, kuri atbilst visām nolikumā izvirzītajām prasībām. Ja pretendents neatbilst kādai no nolikumā izvirzītajām prasībām, iepirkuma komisija turpmāk tā piedāvājumu neizskata.
- 5.1.3. Tehniskā piedāvājuma vērtēšanu veic tikai Pretendentu atlases un kvalifikācijas prasībām atbilstošo Pretendentu iesniegtajiem piedāvājumiem.

5.2. Tehniskā piedāvājuma atbilstības pārbaude:

- 5.2.1. Pēc Pretendentu atlases iepirkuma komisija pārbauda Pretendentu iesniegto tehnisko piedāvājumu atbilstību tehniskajai specifikācijai.
- 5.2.2. Ja Tehniskā piedāvājuma vērtējums saņem mazāk kā 35 punktus, tas uzskatāms kā neatbilstošs un tālāko Piedāvājuma vērtēšanu neveic.
- 5.2.3. Tehniskā piedāvājuma kvalitāti vērtē, pamatojoties uz Pretendenta Tehniskajā piedāvājumā sniegto informāciju atbilstoši Tehniskajai specifikācijai, vērtējot tehniskā piedāvājuma sastāvdaļu esamību un/vai piešķirot katrai Tehniskā piedāvājuma sastāvdaļai attiecīgus novērtējuma punktus atbilstoši Tehniskā piedāvājuma vērtēšanas kritēriju punktiem. Tehniskais piedāvājums tiek vērtēts pēc šādiem kritērijiem: A -Vispārējā organizācija un metodoloģija un B -Tehniskā pieeja, metodika un darbu plāns uzdevuma veikšanai. Tehniskā pieeja, metodika un darba plāns tiek vērtēti ar vairākiem apakškritērijiem, katram piešķirot noteiktu punktu **skaitu**:

Maksimālais vērtējums punktos

A	Vispārējā organizācija un metodoloģija	25
B	Tehniskās pieejas, metodikas un darbu plāns uzdevuma veikšanai:	75
B1	Tehniskie risinājumi un trases novietojuma varianti	15
B2	Inženierizpētes	10
B3	Teritorijas plānošana un kartogrāfija	15
B4	Ietekmes uz vidi novērtējums	15
B5	Izmaksu – ieguvumu analīze	10
B6	Komunikācija un konsultācijas	10
Kopējais maksimālais vērtējums:		100

5.2.4. Atkarībā no tehniskās pieejas, metodikas un darba plāna izklāsta kvalitātes un detalizācijas pakāpes, tiek piemērots attiecīgs koeficients katram kritērijam vai apakškritērijam (turpmāk – kritērijiem) tabulās zemāk.

A -Vispārējā organizācija un metodoloģija (kopā maksimālais punktu skaits - 25)

augsta detalizācija s pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficient s 0,7	zema detalizācija s pakāpe	koeficients 0,3	nepietiekama detalizācija s pakāpe	koeficients 0,1
Tehniskais piedāvājums atbilst tehniskajai specifikācijai, iepirkuma līguma projektam un normatīvajiem aktiem, pretendenta sniegtais Pakalpojuma izpildes apraksts sniedz priekšstatu par Pakalpojuma nodrošināšanas veidu un paņēmieniem, un: • Ir sniegts detalizēts¹ Pakalpojuma izpildes organizatoriskais un tehniskais apraksts, ir detalizēti aprakstītas Pakalpojuma sniegšanas metodes; • Ir sniegts detalizēts kvalitātes vadības sistēmas apraksts Pakalpojuma sniegšanas laikā, norādot kvalitātes pārvaldības sistēmu, pārvaldības atbildību Pakalpojuma sniegšanā, resursu pārvaldību Pakalpojuma sniegšanā, Pakalpojuma sniegšanas procesa kvalitātes nodrošināšanas paņēmienus, Pakalpojuma kvalitātes kontroles paņēmienus, identificējot iespējamos riskus Pakalpojuma sniegšanā un to novēršanas paņēmienus, atbildīgos par risku uzraudzību;		Tehniskais piedāvājums atbilst tehniskajai specifikācijai, iepirkuma līguma projektam un normatīvajiem aktiem, pretendenta sniegtais Pakalpojuma izpildes apraksts sniedz priekšstatu par Pakalpojuma nodrošināšanas veidu un paņēmieniem, un: • ir sniegts Pakalpojuma izpildes organizatoriskais un tehniskais apraksts, ir daļēji² aprakstītas Pakalpojuma sniegšanas metodes; • Ir sniegts daļējs kvalitātes vadības sistēmas apraksts Pakalpojuma sniegšanas laikā, norādot kvalitātes pārvaldības sistēmu, pārvaldības atbildību Pakalpojuma sniegšanā, resursu pārvaldību Pakalpojuma sniegšanā, Pakalpojuma sniegšanas procesa kvalitātes nodrošināšanas paņēmienus, Pakalpojuma kvalitātes kontroles paņēmienus, identificējot iespējamos riskus Pakalpojuma sniegšanā un to novēršanas paņēmienus, atbildīgos par risku uzraudzību;		Tehniskais piedāvājums atbilst tehniskajai specifikācijai, iepirkuma līguma projektam un normatīvajiem aktiem, pretendenta sniegtais Pakalpojuma izpildes apraksts sniedz priekšstatu par Pakalpojuma nodrošināšanas veidu un paņēmieniem, un: • Ir sniegts Pakalpojuma izpildes organizatoriskais un tehniskais apraksts, ir vispārīgi³ aprakstītas Pakalpojuma sniegšanas metodes; • Ir sniegts vispārīgs kvalitātes vadības sistēmas apraksts Pakalpojuma sniegšanas laikā, norādot kvalitātes pārvaldības sistēmu, pārvaldības atbildību Pakalpojuma sniegšanā, resursu pārvaldību Pakalpojuma sniegšanā, Pakalpojuma sniegšanas procesa kvalitātes nodrošināšanas paņēmienus, Pakalpojuma kvalitātes kontroles paņēmienus, identificējot iespējamos riskus Pakalpojuma sniegšanā un to novēršanas paņēmienus, atbildīgos par risku uzraudzību;		Tehniskais piedāvājums atbilst tehniskajai specifikācijai, iepirkuma līguma projektam un normatīvajiem aktiem, pretendenta sniegtais Pakalpojuma izpildes apraksts sniedz priekšstatu par Pakalpojuma nodrošināšanas veidu un paņēmieniem, un: • Nepietiekams⁴ apraksts. Pretendents ir piedāvājis sniegt Pakalpojumu atbilstoši tehniskajā specifikācijā norādītajā kvalitātē (Pretendents ir pārrakstījis tehnisko specifikāciju, bet nav tajā ietvertu informāciju izvērsis un papildinājis vai ir vispārīgi/detalizēti aprakstījis tikai atsevišķas sadaļas); • Nav aprakstīta Pakalpojuma sniegšanas kvalitātes sistēma vai ir norādīts, ka Pretendents nodrošinās Pakalpojumu sniegšanu atbilstoši uzņēmumā esošajai kvalitātes sistēmai, bet neapraksta, kā tieši nodrošinās Pakalpojuma kvalitāti. • Pretendents ir piedāvājis vispārīgu	

¹ **Detalizēts** šeit un turpmāk nozīmē – detalizēts un labi strukturēts apraksts: analizētas vairākas alternatīvas, izvēle pamatota ar tehniskiem un ekonomiskiem un/vai citiem būtiskiem apsvērumiem, ievērojot šī projekta konkrēto uzdevumu.

² **Daļēji** šeit un turpmāk nozīmē – detalizēts un daļēji strukturēts apraksts: alternatīvas nav analizētas, izvēle pamatota ar pretendenta vai citu pieredzi bez tiešas sasaistes ar šī projekta konkrēto uzdevumu.

³ **Vispārīgs** šeit un turpmāk nozīmē – vispārīgs apraksts, detalizēti aprakstīti atsevišķi pasākumi: alternatīvas nav analizētas, piedāvāto pasākumu un darba paņēmienu izvēles pamatojuma nav (vai izvēle pamatota, atsaucoties uz tehnisko specifikāciju).

⁴ **Nepietiekams** šeit un turpmāk nozīmē – pretendents ir pārrakstījis tehnisko specifikāciju, bet nav tajā ietvertu informāciju izvērsis un papildinājis.

• Pretendents ir sagatavojis detalizētu pamatotu, paplašinātu aprakstu (ir izvērts tehniskajā specifikācijā dotais apraksts atbilstoši Pasūtītāja vajadzībām) par plānotā Pakalpojuma saturu, Pakalpojuma sniegšanas metodēm un izpildes vadību, kvalitātes nodrošināšanu, Pakalpojuma ietvaros veicamo darbu secību un savstarpējo sasaisti, Pakalpojuma rezultātiem, ziņojumiem un iesniedzamajiem materiāliem; • Pretendents tehniskajā piedāvājumā ir detalizēti atspoguļojis personāla (speciālistu) iesaisti un pamatojis to lomu Pakalpojuma sniegšanā; ir detalizēti aprakstījis visa pārējā iesaistāmā personāla kvalifikāciju un kvalifikācijas atbilstību veicamajiem darbiem; un pamatojis šī personāla piesaistes nepieciešamību; ir aprakstījis pienākumu sadalījumu Pakalpojuma sniegšanā, iesaistīto speciālistu un pārējā personāla hierarhiju un savstarpējos sadarbības modeļus, paredzamo darba stundu skaitu – kopējo un ceturkšņa griezumā, stundas likmes; • Pretendents ir detalizēti izvērsis Pakalpojuma sniegšanas laika grafiku, norādot Pakalpojuma sniegšanas etapus, detalizētu nodevumu saturu, un pamatojumu šāda nodevuma satura izvēlei, utml. • Piedāvājums satur detalizētu aprakstu par plānoto sadarbību (komunikāciju) ar pasūtītāju, uzskaitot plānotās (nepieciešamās) sapulces un iespējamās, to	• Pretendents ir sagatavojis pamatotu, daļēji paplašinātu aprakstu (ir izvērts tehniskajā specifikācijā dotais apraksts atbilstoši Pasūtītāja vajadzībām) par plānotā Pakalpojuma saturu, Pakalpojuma sniegšanas metodēm un izpildes vadību, kvalitātes nodrošināšanu, Pakalpojuma ietvaros veicamo darbu secību un savstarpējo sasaisti, Pakalpojuma rezultātiem, ziņojumiem un iesniedzamajiem materiāliem; • Pretendents tehniskajā piedāvājumā ir detalizēti atspoguļojis personāla (speciālistu) iesaisti un pamatojis to lomu Pakalpojuma sniegšanā; ir detalizēti aprakstījis svarīgākā pārējā personāla kvalifikāciju un kvalifikācijas atbilstību veicamajiem darbiem; un pamatojis pārējā personāla piesaistes nepieciešamību; ir aprakstījis pienākumus Pakalpojuma sniegšanā, iesaistīto speciālistu un pārējā personāla hierarhiju un savstarpējos sadarbības modeļus, paredzamo darba stundu skaitu, stundas likmes; • Pretendents ir detalizēti izvērsis Pakalpojuma sniegšanas laika grafiku, norādot Pakalpojuma sniegšanas etapus, detalizētu nodevumu saturu utml. • Piedāvājums satur aprakstu par plānoto sadarbību (komunikāciju) ar pasūtītāju, uzskaitot plānotās (nepieciešamās) sapulces, aprakstot plānoto pieeju konsultāciju sniegšanā; • Sniegts apraksts, kā tiks nodrošināta komunikācija gadījumā, ja būs nepieciešams tulks.	• Pretendents ir sagatavojis pamatotu, vispārīgu aprakstu (ir izvērts tehniskajā specifikācijā dotais apraksts atbilstoši Pasūtītāja vajadzībām) par plānotā Pakalpojuma saturu, Pakalpojuma sniegšanas metodēm un izpildes vadību, kvalitātes nodrošināšanu, Pakalpojuma rezultātiem, ziņojumiem un iesniedzamajiem materiāliem; • Pretendents tehniskajā piedāvājumā ir daļēji atspoguļojis personāla (speciālistu) iesaisti un pamatojis to lomu Pakalpojuma sniegšanā; ir vispārīgi aprakstījis atsevišķa pārējā personāla kvalifikāciju un kvalifikācijas atbilstību veicamajiem darbiem; un pamatojis pārējā personāla piesaistes nepieciešamību; ir aprakstījis pienākumus Pakalpojuma sniegšanā, iesaistīto speciālistu un pārējā personāla hierarhiju, paredzamo darba stundu skaitu, stundas likmes; • Pretendents ir piedāvājis vispārīgu Pakalpojuma sniegšanas laika grafiku, norādot Pakalpojuma sniegšanas etapus, nodevumus utml. • Piedāvājums satur vispārēju, neizvērstu aprakstu par plānoto sadarbību (komunikāciju) ar pasūtītāju; • Sniegts apraksts, kā tiks nodrošināta komunikācija gadījumā, ja būs nepieciešams tulks.	Pakalpojuma sniegšanas laika grafiku, norādot nodevumus; • Pretendents ir piekritis sniegt Pakalpojumu atbilstoši tehniskās specifikācijas prasībām (Pretendents ir pārrakstījis tehnisko specifikāciju, bet nav tajā ietvertu informāciju izvērsis un papildinājis)
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darba kārtībā iekļaujamus (plānotos) jautājumus, kā arī detalizēti aprakstot plānoto pieeju konsultāciju sniegšanā; • Sniegts apraksts, kā tiks nodrošināta komunikācija gadījumā, ja būs nepieciešams tulk.			
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B – Tehniskās pieejas, metodikas un darbu plāns uzdevumu veikšanai (kopā maksimālais punktu skaits - 75)

B 1. Tehniskie risinājumi un trases novietojuma varianti (15 punkti)							
augsta detalizācijas pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficients 0,7	zema detalizācijas pakāpe	koeficients 0,3	nepietiekama detalizācijas pakāpe	koeficients 0,1
• Pretendents ir piedāvājis tehnisko risinājumu izstrādē analizēt gan tipveida tehniskos risinājumus, gan konkrētajai izpētes situācijai piemērotus individualizētus tehniskos risinājumus; katrai tehniskajai komponentei (galvenajiem darbu veidiem) vismaz 3 tehniskos risinājumus, ir paredzējis iespēju izpētes darba gaitā piedāvāt citus tehnisko risinājumu variantus, ja tas būs nepieciešams; piedāvājumā ietvēris izpētes situāciju pamatojošu risinājumu piemērus (kartogrāfiskais materiāls vai rasējumu paraugi); • pretendents ir piedāvājis analizēt trases novietojuma variantus un aprakstījis, kādus galvenos kritērijus piemēros, pamatojis kritēriju un metožu izvēli, parādījis integrētu pieeju ar citām izpētes daļām; definējis, pēc kādiem kritērijiem un metodēm izvēlēties pētāmo variantu apakšvariantus. • pretendents ir piedāvājis analizēt trases novietojuma variantus un aprakstījis, kādus kritērijus piemēros, lai pētāmie trases		• Pretendents ir piedāvājis tehnisko risinājumu izstrādē analizēt atsevišķām tehniskajām komponentēm (galvenajiem darbu veidiem) vismaz 3 tehniskos risinājumus, ir paredzējis iespēju izpētes darba gaitā piedāvāt citus tehnisko risinājumu variantus, ja tas būs nepieciešams; piedāvājumā ietvēris izpētes situāciju pamatojošu risinājumu piemērus (kartogrāfiskais materiāls vai rasējumu paraugi); • pretendents ir piedāvājis analizēt trases novietojuma variantus un aprakstījis, kādus galvenos kritērijus piemēros, pamatojis kritēriju un metožu izvēli, parādījis integrētu pieeju ar citām izpētes daļām; definējis, pēc kādiem kritērijiem un metodēm izvēlēties pētāmo variantu apakšvariantus.		• Pretendents ir piedāvājis tehnisko risinājumu izstrādē analizēt atsevišķām tehniskajām komponentēm (galvenajiem darbu veidiem) vismaz 3 tehniskos risinājumus, ir paredzējis iespēju izpētes darba gaitā piedāvāt citus tehnisko risinājumu variantus, ja tas būs nepieciešams; piedāvājumā ietvēris vispārīgus risinājumu piemērus; • pretendents ir piedāvājis analizēt trases novietojuma variantus un aprakstījis, kādus galvenos kritērijus piemēros, pamatojis kritēriju un metožu izvēli, parādījis integrētu pieeju ar citām izpētes daļām.		• Pretendents ir piedāvājis tehnisko risinājumu izstrādē, ka aplūkos mazāk kā 3 tehniskos risinājumus, ir paredzējis iespēju izpētes darba gaitā piedāvāt citus tehnisko risinājumu variantus; • pretendents ir piedāvājis analizēt trases novietojuma variantus un aprakstījis, kādus galvenos kritērijus piemēros, aprakstījis kritēriju un metožu izvēles galvenos principus.	

novietojuma varianti būtu pietiekami atšķirīgi, pamatojis kritēriju un metožu izvēli, parādījis integrētu pieeju ar citām izpētes daļām; definējis, pēc kādiem kritērijiem un metodēm izvēlēties pētāmo variantu apakšvariantus.			
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B 2. Inženierizpētes (10 punkti)

augsta detalizācijas pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficients 0,7	zema detalizācijas pakāpe	koeficients 0,3	nepietiekama detalizācijas pakāpe	koeficients 0,1
Pretendents ir sniedzis detalizētu aprakstu par Pakalpojuma izpildes ietvaros veicamajiem inženierizpētes darbiem, norādot un pamatojot:		Pretendents ir sniedzis daļēju aprakstu par Pakalpojuma izpildes ietvaros veicamajiem inženierizpētes darbiem, norādot un pamatojot:		Pretendents ir sniedzis vispārīgu aprakstu par Pakalpojuma izpildes ietvaros veicamajiem inženierizpētes darbiem, norādot un aprakstot:		Pretendents ir sniedzis vispārīgu aprakstu par Pakalpojuma izpildes ietvaros veicamajiem inženierizpētes darbiem, norādot un aprakstot:	
- veicamo izpētes veidus; - veicamo darbu apjomus katram izpētes veidam; - izmantotās metodes katram izpētes veidam; - normatīvos aktus, kas tiks ievēroti darba uzdevuma izpildei; - piedāvāto izpildes metožu un apjomu atbilstību normatīvo aktu prasībām; - kāpēc izvēlētās metodes sniedz vislabāko izpētes mērķu sasniegšanas pakāpi un kā izvēlētās metodes nodrošinās turpmākajai būvprojektēšanai nepieciešamās informācijas kvalitāti.		- veicamo izpētes veidus; - veicamo darbu apjomus katram izpētes veidam; - izmantotās metodes katram izpētes veidam; - normatīvos aktus, kas tiks ievēroti darba uzdevuma izpildei; - piedāvāto izpildes metožu atbilstību normatīvo aktu prasībām; - kāpēc izvēlētās metodes sniedz vislabāko izpētes mērķu sasniegšanas pakāpi un kā izvēlētās metodes nodrošinās turpmākajai būvprojektēšanai nepieciešamās informācijas kvalitāti.		- veicamo izpētes veidus; - veicamo darbu apjomus katram izpētes veidam; - izmantotās metodes katram izpētes veidam; - normatīvos aktus, kas tiks ievēroti darba uzdevuma izpildei; - piedāvāto izpildes metožu atbilstību normatīvo aktu prasībām; - kāpēc izvēlētās metodes sniedz vislabāko izpētes mērķu sasniegšanas pakāpi un kā izvēlētās metodes nodrošinās turpmākajai būvprojektēšanai nepieciešamās informācijas kvalitāti.		- veicamo izpētes veidus; - veicamo darbu apjomus katram izpētes veidam; - izmantotās metodes katram izpētes veidam; - ka tiks ievērotas spēkā esošo normatīvo aktu prasības darba uzdevuma izpildei.	

B 3. Teritorijas plānošana un kartogrāfija (15 punkti)

augsta detalizācijas pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficients 0,7	zema detalizācijas pakāpe	koeficients 0,3	nepietiekama detalizācijas pakāpe	koeficients 0,1
• Pretendents		• Pretendents		• Pretendents		• Pretendents	

demonstrē izpratni par izpētes uzdevumu un par priekšizpētes rezultātiem saistībā ar teritorijas plānošanu, un pamatojis, kādā veidā tas tiks ņemts vērā šajā izpētē; • Sniegts detalizēts apraksts par izpētes ietvaros veicamo teritorijas attīstības (arī telpisko) analīzi, metodēm un darbā izmantojamiem materiāliem (tajā skaitā kartogrāfiskajiem materiāliem un to iegūšanu vai izstrādi) tehniskajā specifikācijā paredzēto teritorijas plānošanas uzdevumu veikšanai, kā arī par teritorijas attīstības plānošanas aspektiem, kas tiks ņemti vērā izstrādājot papildus iespējamās trases novietojuma variantus; • Sniegts detalizēts apraksts par pārskata sagatavošanu par atsavināmajiem nekustamajiem īpašumiem izvēlētajās trases zonā, par izmantojamām metodēm aptuvenās 1 m² zemes cenas pa mērķu grupām noteikšanai, par komunikāciju ar nekustamo īpašumu īpašniekiem un lietotājiem konceptuālā saskaņojuma saņemšanai; • Veikta sākotnējā situācijas apzināšana par teritorijas attīstības plānošanas situāciju pašvaldībās, kuras šķērso dzelzceļa līnijas trase; • Sniegts apraksts par izpētes rezultātu integrēšanu teritorijas attīstības plānošanas dokumentos, ņemot vērā normatīvo aktu regulējumu.	demonstrē izpratni par izpētes uzdevumu un par priekšizpētes rezultātiem saistībā ar teritorijas plānošanu, un pamatojis, kādā veidā tas tiks ņemts vērā šajā izpētē; • Sniegts daļējs apraksts par izpētes ietvaros veicamo teritorijas attīstības (arī telpisko) analīzi, metodēm un darbā izmantojamiem materiāliem (tajā skaitā kartogrāfiskajiem materiāliem un to iegūšanu vai izstrādi) tehniskajā specifikācijā paredzēto teritorijas plānošanas uzdevumu veikšanai, kā arī par teritorijas attīstības plānošanas aspektiem, kas tiks ņemti vērā izstrādājot papildus iespējamās trases novietojuma variantus; • Sniegts daļējs apraksts par pārskata sagatavošanu par atsavināmajiem nekustamajiem īpašumiem izvēlētajās trases zonā, par izmantojamām metodēm aptuvenās 1 m² zemes cenas pa mērķu grupām noteikšanai, par komunikāciju ar nekustamo īpašumu īpašniekiem un lietotājiem konceptuālā saskaņojuma saņemšanai; • Veikta sākotnējā situācijas apzināšana par teritorijas attīstības plānošanas situāciju pašvaldībās, kuras šķērso dzelzceļa līnijas trase.	demonstrē izpratni par izpētes uzdevumu un par priekšizpētes rezultātiem saistībā ar teritorijas plānošanu, un pamatojis, kādā veidā tas tiks ņemts vērā šajā izpētē; • Sniegts vispārīgs apraksts par izpētes ietvaros veicamo teritorijas attīstības (arī telpisko) analīzi, metodēm un darbā izmantojamiem materiāliem (tajā skaitā kartogrāfiskajiem materiāliem un to iegūšanu vai izstrādi) tehniskajā specifikācijā paredzēto teritorijas plānošanas uzdevumu veikšanai, kā arī par teritorijas attīstības plānošanas aspektiem, kas tiks ņemti vērā izstrādājot papildus iespējamās trases novietojuma variantus; • Sniegts vispārīgs apraksts par pārskata sagatavošanu par atsavināmajiem nekustamajiem īpašumiem izvēlētajās trases zonā, par izmantojamām metodēm aptuvenās 1 m² zemes cenas pa mērķu grupām noteikšanai, par komunikāciju ar nekustamo īpašumu īpašniekiem un lietotājiem konceptuālā saskaņojuma saņemšanai; • Veikta sākotnējā situācijas apzināšana par teritorijas attīstības plānošanas situāciju pašvaldībās, kuras šķērso dzelzceļa līnijas trase.	demonstrē izpratni par izpētes uzdevumu un par priekšizpētes rezultātiem saistībā ar teritorijas plānošanu, un pamatojis, kādā veidā tas tiks ņemts vērā šajā izpētē; • Pretendents ir piedāvājis sniegt Pakalpojumu atbilstoši tehniskās specifikācijas prasībām (Pretendents ir pārrakstījis tehnisko specifikāciju, bet nav tajā ietvertu informāciju izvērsis un papildinājis); • Veikta sākotnējā situācijas apzināšana par teritorijas attīstības plānošanas situāciju pašvaldībās, kuras šķērso dzelzceļa līnijas trase.
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B 4.Ietekmes uz vidi novērtējums (15 punkti)							
augsta detalizācijas pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficients 0,7	zema detalizācijas pakāpe	koeficients 0,3	nepietiekama detalizācijas pakāpe	koeficients 0,1
- Piedāvājums satur detalizētu aprakstu par plānotajiem pasākumiem, metodēm un pasākumiem ietekmes uz vidi novērtējuma izstrādei atbilstoši normatīvo aktu prasībām; - Piedāvājumā iekļauts detalizēts iespējamo vides risku izvērtējums, norādot potenciālo ietekmi uz izpēti realizāciju; - Detalizēti aprakstīti metodes un pasākumi, kas tiks pielietoti, lai nodrošinātu pēc iespējas minimālu izpēti rezultātu ietekmi uz vidi.		- Piedāvājums satur daļēju aprakstu par plānotajiem pasākumiem, metodēm un pasākumiem ietekmes uz vidi novērtējuma izstrādei atbilstoši normatīvo aktu prasībām; - Ir uzskaitīti iespējamie riski; - Uzskaitītas iespējamās metodes un pasākumi, kas tiks pielietoti, lai nodrošinātu pēc iespējas minimālu ietekmi uz vidi.		- Piedāvājums satur vispārīgu aprakstu par plānotajiem pasākumiem, metodēm un pasākumiem ietekmes uz vidi novērtējuma izstrādei atbilstoši normatīvo aktu prasībām; - Nav sniegts risku izvērtējums.		Pretendents ir piekritis sniegt Pakalpojumu atbilstoši tehniskās specifikācijas prasībām (Pretendents ir pārrakstījis tehnisko specifikāciju, bet nav tajā ietvertu informāciju izvērsis un papildinājis).	
B 5.Izmaksu – ieguvumu analīze (10 punkti)							
augsta detalizācijas pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficients 0,7	zema detalizācijas pakāpe	koeficients 0,3	nepietiekama detalizācijas pakāpe	koeficients 0,1
- Detalizēti aprakstīti izmaksu – ieguvumu analīzes izstrādes posmu uzdevumi un to atbilstība tehniskās specifikācijas prasībām, saskaņā ar kuriem Pretendents veiks izmaksu-ieguvumu analīzi; - Sniegts detalizēts apraksts par projekta risku novērtējumu, tajā izmantojamajām metodēm un palīgīdzekļiem risku apzināšanai, sniedzot kvantitatīvo un kvalitatīvo metožu un palīgīdzekļu izvēles pamatojumu; - Sniegts detalizēts apraksts par jūtīguma analīzi, tajā izmantojamajām metodēm		- Daļēji aprakstīti izmaksu – ieguvumu analīzes izstrādes posmu uzdevumi un to atbilstība tehniskās specifikācijas prasībām, saskaņā ar kuriem Pretendents veiks izmaksu-ieguvumu analīzi; - Sniegts daļējs apraksts par projekta risku novērtējumu, tajā izmantojamajām metodēm un palīgīdzekļiem risku apzināšanai, sniedzot kvantitatīvo un kvalitatīvo metožu un palīgīdzekļu izvēles pamatojumu; - Sniegts daļējs apraksts par jūtīguma analīzi, tajā izmantojamajām metodēm un scenārijiem, sniedzot to izvēles pamatojumu;		- Vispārīgi aprakstīti izmaksu – ieguvumu analīzes izstrādes posmu uzdevumi un to atbilstība tehniskās specifikācijas prasībām, saskaņā ar kuriem Pretendents veiks izmaksu-ieguvumu analīzi; - Sniegts vispārīgs apraksts par projekta risku novērtējumu, tajā izmantojamajām metodēm un palīgīdzekļiem risku apzināšanai, sniedzot kvantitatīvo un kvalitatīvo metožu un palīgīdzekļu izvēles pamatojumu; - Vispārīgs apraksts par jūtīguma analīzi, tajā izmantojamajām metodēm un scenārijiem, sniedzot to izvēles pamatojumu;		- Pretendents ir piekritis sniegt Pakalpojumu atbilstoši tehniskās specifikācijas prasībām (Pretendents ir pārrakstījis tehnisko specifikāciju, bet nav tajā ietvertu informāciju izvērsis un papildinājis); - Nav sniegts projekta risku novērtējums.	

un scenārijiem, sniedzot to izvēles pamatojumu; • Detalizēti aprakstīta izmaksu un ieguvumu analīzes ziņojumos iekļaujamā informācija; • Uzskaitīti pieņēmumi, metodoloģiskā pieeja, kurus plānots izmantot analīzes veikšanā, detalizēti attēlota plānotā darbu veikšanas kārtība un plānotā integritāte ar citiem uzdevumiem; • Izmaksu-ieguvumu veikšanas risku analīzē paredz piedāvāt risku novēršanas pasākumus pa atsevišķiem līnijas posmiem.	• Piedāvājums satur daļēju aprakstu par pieņēmumiem, kurus plānots izmantot analīzes veikšanā; • Daļēji attēlota izmaksu un ieguvumu analīzes ziņojumos iekļaujamā informācija.	• Sniegts vispārīgs apraksts par pieņēmumiem, kurus plānots izmantot analīzes veikšanā; • Piedāvājumā sniegta vispārīga izmaksu un ieguvumu analīzes ziņojumos iekļaujamā informācija.	
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B 6. Komunikācija un konsultācijas (10 punkti)

augsta detalizācijas pakāpe	koeficients 1,0	vidēja detalizācijas pakāpe	koeficients 0,7	zema detalizācijas pakāpe	koeficients 0,3	nepietiekama detalizācijas pakāpe	koeficients 0,1
• Pretendents ir izstrādājis projekta komunikācijas stratēģiju un taktiku atbilstoši piedāvātajai radošās idejas skicei; • Sniegts detalizēts apraksts par to, kādi sabiedrības informēšanas pasākumi plānoti, kādi publicitātes mērķi, kāds atbalsts tiks sniegts pasūtītājam publicējamās informācijas sagatavošanā, norādot valodu, auditoriju un plānoto publicitātes apjomu; • Sniegts detalizēts apraksts par plānoto sabiedrisko apspriežu vadīšanu un norisi; • Sniegta informācija par izmantojamiem audio – vizuālajiem materiāliem (video, info grafiki, foto);		• Pretendents ir izstrādājis projekta komunikācijas ar sabiedrību radošās idejas skici; • Sniegts daļējs apraksts par to, kādi sabiedrības informēšanas pasākumi plānoti, kādi publicitātes mērķi, kāds atbalsts tiks sniegts pasūtītājam publicējamās informācijas sagatavošanā; • Sniegts daļējs apraksts par plānoto sabiedrisko apspriežu vadīšanu un norisi; • Sniegts apraksts, kā tiks nodrošināta komunikācija gadījumā, ja būs nepieciešams tulks; • Ir paredzēti krīzes komunikācijas pasākumi.		• Piedāvājumā minēts, ka Pretendents veiks plānoto sabiedrisko apspriežu vadīšanu, nav sniegts apraksts par plānoto sabiedrisko apspriežu norisi, nav uzskaitīti plānotie sabiedrības informēšanas pasākumi; • Sniegts apraksts, kā tiks nodrošināta komunikācija gadījumā, ja būs nepieciešams tulks.		• Sniegtais komunikācijas un konsultāciju sniegšanas apraksts ir nepilnīgs un nav pietiekams detalizētai izvērtēšanai.	

• Sniegts apraksts, kā tiks nodrošināta komunikācija gadījumā, ja būs nepieciešams tulks; • Sniegts apraksts, kā tiks organizēta komunikācija, ja radīsies krīzes situācija.			
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- 5.2.5. Katram kritērijam tiek piešķirts maksimālais punktu skaits, kam piemēro koeficientu, atkarībā no piedāvātā apraksta detalizācijas līmeņa. Iegūtie punkti par visiem kritērijiem tiek summēti.
- 5.2.6. Pretendenta Tehniskā piedāvājuma vērtējums ir visu iepirkuma komisijas locekļu individuālo vērtējumu vidējais aritmētiskais.

5.3. Finanšu piedāvājuma vērtēšana:

- 5.3.1. Finanšu piedāvājumu vērtēšanas laikā komisija pārbauda, vai finanšu piedāvājumā nav aritmētisko kļūdu.
- 5.3.2. Par kļūdu labojumu un laboto piedāvājuma cenu iepirkuma komisija paziņo Pretendentam, kura pieļautās kļūdas labotas.
- 5.3.3. Vērtējot finanšu piedāvājumu, iepirkuma komisija ņem vērā aritmētisko kļūdu labojumus.
- 5.3.4. Pasūtītājs vērtēs piedāvāto līgumcenu (bez PVN).
- 5.3.5. Pasūtītājam ir tiesības jebkurā laikā pieprasīt no Pretendenta, kas izturējis Pretendentu atlasī, atkārtotu apliecinājumu, ka viņa kvalifikācija joprojām atbilst šī konkursa nolikuma noteiktajām prasībām. Gadījumā, ka Pretendents to nespēj vai nedara, vai atklājas, ka viņš iesniedzis nepatiesas ziņas, iepirkuma komisija noraida viņa piedāvājumu.
- 5.3.6. Ja komisija pieprasa, lai pretendents precizē informāciju par savu piedāvājumu, tā nosaka termiņu, līdz kuram Pretendentam jāsniedz atbilde.
- 5.3.7. Piedāvājuma izvēles kritērijs ir saimnieciski visizdevīgākais piedāvājums. Komisija izvēlas saimnieciski visizdevīgāko piedāvājumu, kas atbilst nolikuma prasībām, tehniskajai specifikācijai (nolikuma Pielikums Nr.1) un iegūst vislielāko punktu skaitu saskaņā ar saimnieciski visizdevīgākā piedāvājuma vērtēšanas kritērijiem.
- 5.3.8. Saimnieciski visizdevīgākā piedāvājuma vērtēšanas kritēriji un to skaitliskās vērtības:

	Saimnieciski izdevīgākā piedāvājuma vērtēšanas kritēriji	Maksimālā skaitliskā vērtība
A	Kopējā cena (bez PVN)	40
B	Pakalpojuma izpildes apraksta (tehniskais piedāvājums) kvalitāte	60
	Maksimālais iespējamais kopējais punktu skaits	100

- 5.3.9. Punkti par piedāvājuma cenu tiek noteikti šādi:

$$\text{Punktu skaits} = 40 \times (C_{\text{zem.}} / C_x), \text{ kur}$$

$C_{\text{zem.}}$ - zemākā piedāvātā cena;

C_x – vērtējamā pretendenta piedāvātā cena.

- 5.3.10. Par saimnieciski visizdevīgāko piedāvājumu tiek atzīts piedāvājums ar lielāko punktu skaitu.
- 5.3.11. Piedāvājumu vērtēšanas laikā iepirkuma komisijas locekļi aizpilda un paraksta individuālās vērtēšanas tabulas, kuras tiek apkopotas kopējā vērtējuma tabulā. Ņemot vērā kopējā vērtējuma tabulu, iepirkuma komisija apstiprina rezultātus.
- 5.3.12. Ja vairāku Pretendentu iegūtais punktu skaits ir vienāds, tad iepirkuma komisija izvēlas to piedāvājumu, kuru iesniedzis piegādātājs, kas nodarbina vismaz 20 notiesātos ieslodzījuma vietās. Ja starp Pretendentiem nav neviena, kurš atbilst iepriekš minētajam kritērijam, tad iepirkuma komisija izvēlas tā Pretendenta piedāvājumu, kurš par tehnisko piedāvājumu ir saņēmis augstāku vērtējumu.

(ar 2013.gada 8.aprīļa grozījumiem)

6. Apakšuzņēmēji

- 6.1. Ievērojot PIL 20.panta otrās daļas noteikumus, Pretendentam piedāvājumā jānorāda visi tie Pretendenta apakšuzņēmēji, kā arī apakšuzņēmēju apakšuzņēmēji, kuru sniedzamo pakalpojumu vērtība ir 20% no kopējās iepirkuma līguma vērtības vai lielāka, un katram šādam apakšuzņēmējam izpildei nododamo Pakalpojuma daļu.
- 6.2. Iepirkuma procedūrā izraudzītais Pretendents (līguma Izpildītājs) ir tiesīgs bez saskaņošanas ar Pasūtītāju veikt apakšuzņēmēju nomaiņu, kā arī papildu apakšuzņēmēju iesaistīšanu līguma izpildē, izņemot 6.3. un 6.4. punktus minētos gadījumus.
- 6.3. Iepirkuma līguma izpildes laikā Pretendents (līguma Izpildītājs) drīkst veikt to apakšuzņēmēju nomaiņu, kuri Pretendenta piedāvājumā norādīti kā apakšuzņēmēji, kuru veicamās Pakalpojuma daļas vērtība ir 20% no kopējās iepirkuma līguma vērtības vai lielāka (ja Pretendents nav balstījies uz šo apakšuzņēmēju iespējām, lai apliecinātu savas kvalifikācijas atbilstību nolikuma noteiktajām prasībām), kā arī minētajiem kritērijiem atbilstošu apakšuzņēmēju iesaistīšanu līguma izpildē, ja Pretendents (līguma Izpildītājs) par to paziņojis Pasūtītājam un saņēmis Pasūtītāja rakstveida piekrišanu. Pasūtītājs piekrīt apakšuzņēmēja nomaiņai vai jauna apakšuzņēmēja iesaistīšanai, ja uz piedāvāto apakšuzņēmēju neattiecas PIL 39.panta pirmajā daļā minētie pretendentu izslēgšanas nosacījumi, ko Pasūtītājs pārbauda, ievērojot PIL 68.panta trešās daļas 3.punkta noteikumus.
- 6.4. Iepirkuma procedūrā izraudzītā Pretendenta apakšuzņēmējus, uz kuru iespējām iepirkuma procedūrā Pretendents balstījies, lai apliecinātu savas kvalifikācijas atbilstību nolikuma noteiktajām prasībām (nolikuma 1.7.6.apakšpunkts), pēc līguma noslēgšanas drīkst nomainīt tikai ar Pasūtītāja rakstveida piekrišanu, ievērojot PIL 68.panta trešās daļas noteikumus.

(ar 2013.gada 27.februāra grozījumiem)

7. Iepirkuma komisijas tiesības un pienākumi

7.1. Iepirkuma komisijas tiesības:

- 7.1.1. Izdarīt grozījumus nolikumā.
- 7.1.2. Pārbaudīt nepieciešamo informāciju kompetentā institūcijā, publiski pieejamās datubāzēs vai citos publiski pieejamos avotos, ja tas nepieciešams piedāvājumu atbilstības pārbaudei, pretendentu atlasei, piedāvājumu vērtēšanai un salīdzināšanai.
- 7.1.3. Pieprasīt Pretendentam papildus informāciju vai precizējumus.
- 7.1.4. Pieaicināt ekspertu ar padomdevēja tiesībām.
- 7.1.5. Lemt par piedāvājuma tālāku izskatīšanu, ja piedāvājums nav noformēts atbilstoši nolikuma prasībām.
- 7.1.6. Noraidīt piedāvājumu, ja tiek konstatēts, ka ir iesniegts nolikuma prasībām neatbilstošs piedāvājums vai ir sniegta nepilnīga vai nepatiesa informācija.
- 7.1.7. Pieņemt lēmumu par līguma slēgšanu vai lēmumu par konkursa izbeigšanu vai pārtraukšanu.

- 7.1.8. Izvēlēties nākamo saimnieciski visizdevīgāko piedāvājumu, ja izraudzītais Pretendents atsakās slēgt līgumu ar Pasūtītāju.
- 7.1.9. Veikt citas darbības saskaņā ar PIL, citiem normatīvajiem aktiem un šo nolikumu.
- 7.2. **Iepirkuma komisijas pienākumi:**
- 7.3. Nodrošināt konkursa norisi un dokumentēšanu.
- 7.4. Nodrošināt vienlīdzīgu un taisnīgu attieksmi pret Pretendentiem.
- 7.5. Atbildēt uz ieinteresēto personu iesniegtajiem rakstiskajiem jautājumiem.
- 7.6. Vērtēt Pretendentes un to iesniegtos piedāvājumus saskaņā ar PIL, citiem normatīvajiem aktiem un nolikumu.
- 7.7. Ja komisija konstatē, ka atbilstoši PIL 39., 40., 41., 42., 43. un 44.panta noteikumiem iesniegtajos dokumentos ietvertā informācija ir neskaidra vai nepilnīga, tā pieprasa, lai Pretendents vai kompetenta institūcija izskaidro vai papildina šajos dokumentos ietverto informāciju. Termiņu nepieciešamās informācijas iesniegšanai nosaka samērīgi ar laiku, kas nepieciešams šādas informācijas sagatavošanai un iesniegšanai. Ja komisija ir pieprasījusi izskaidrot vai papildināt iesniegtos dokumentus, bet Pretendents to nav izdarījis atbilstoši komisijas noteiktajām prasībām, komisijai nav pienākuma atkārtoti pieprasīt, lai tiek izskaidrota vai papildināta šajos dokumentos ietvertā informācija

8. Pretendenta tiesības un pienākumi

- 8.1. **Pretendenta tiesības:**
- 8.1.1. Pieprasīt papildu informāciju par iepirkuma nolikumu. Papildu informāciju var pieprasīt rakstveidā, nosūtot to Pasūtītājam pa faksu vai pa pastu. Papildus informāciju Pretendents var pieprasīt atbilstoši PIL 30.panta trešajā daļā noteiktajam, bet ne vēlāk kā 6 (sešas) dienas pirms piedāvājumu iesniegšanas termiņa beigām.
- 8.1.2. Līdz piedāvājumu iesniegšanas termiņa beigām grozīt vai atsaukt iesniegto piedāvājumu.
- 8.1.3. Piedalīties piedāvājumu atvēršanas sanāksmē.
- 8.1.4. Veikt citas darbības saskaņā ar PIL, citiem normatīvajiem aktiem un šo nolikumu.
- 8.2. **Pretendenta pienākumi:**
- 8.2.1. Ja piedāvājums tiek sūtīts pasta sūtījumā, Pretendents ir atbildīgs par savlaicīgu piedāvājuma izsūtīšanu, lai nodrošinātu piedāvājuma saņemšanu līdz nolikumā noteiktajam termiņam.
- 8.2.2. Rakstveidā, komisijas norādītajā termiņā, sniegt atbildes un paskaidrojumus par piedāvājumu uz komisijas uzdotajiem jautājumiem.
- 8.2.3. Līdz ar piedāvājuma iesniegšanu ievērot visus nolikumā minētos noteikumus.
- 8.2.4. Segt visas izmaksas, kas saistītas ar piedāvājumu sagatavošanu un iesniegšanu.
- 8.2.5. Pretendents nedrīkst izdarīt tādas darbības, kas varētu tieši ietekmēt komisijas lēmumus attiecībā uz konkursa norisi, piedāvājumu pārbaudi, vērtēšanu.

9. Iepirkuma līgums un līguma izpildes nodrošinājums

- 9.1. Līgums būs fiksētās summas līgums un tajā visā darbības laikā nevarēs ieviest nekādas līgumsummas izmaiņas, izņemot līguma summas samazinājumu.
- 9.2. Iepirkuma komisija pieņem lēmumu slēgt līgumu ar Pretendentu, kura piedāvājums un kvalifikācija atbilst nolikuma prasībām, un kura piedāvājums ir saimnieciski visizdevīgākais.
- 9.3. Līguma projektu sagatavo Pasūtītājs, pamatojoties uz nolikumu, Tehnisko specifikāciju (nolikuma 1.pielikums), Līguma projektu (nolikuma 5.pielikums), Pretendenta tehnisko un finanšu piedāvājumu. Pretendentam no savas puses parakstīts līgums jāiesniedz 5 (piecu) darba dienu laikā pēc līguma projekta saņemšanas. Strīda gadījumā tiek pieņemts, ka līguma projekts ir saņemts trešajā dienā pēc tā nosūtīšanas.
- 9.4. Desmit dienu laikā no līguma noslēgšanas Pretendentam, kura piedāvājumu komisija ir atzinusi par saimnieciski visizdevīgāko, ir jāiesniedz no savas puses neatsaucamu līguma izpildes nodrošinājumu 10% apmērā no Līguma summas.
- 9.5. Līguma izpildes nodrošinājums var būt:

- 9.5.1. Bankas garantija, kuras nosacījumiem un izsniegšanas kritērijiem jāatbilst šādiem noteikumiem:
 - 9.5.1.1.garantijas devējam jāaņem samaksāt Pasūtītājam garantijas summu iepirkuma līgumā (5.pielikums) noteiktajos gadījumos;
 - 9.5.1.2.garantijai jābūt spēkā visā iepirkuma līguma darbības laikā un līdz pieņemšanas-nodošanas akta abpusējai parakstīšanas dienai;
 - 9.5.1.3.garantijai jābūt no Pretendenta puses neatsaucamai;
 - 9.5.1.4.Pasūtītājam nav jāpieprasa garantijas summa no Pretendenta pirms prasības iesniegšanas garantijas devējam;
 - 9.5.1.5.garantija pakļaujas Starptautiskās tirdzniecības kameras noteikumiem „The ICC Uniform Rules for Demand Guarantees”, ICC Publication NO.758, bet attiecībā uz jautājumiem, kurus neregulē minētie Starptautiskās tirdzniecības kameras noteikumi, šī garantija pakļaujas Latvijas Republikas normatīvajiem aktiem. Prasības un strīdi, kas saistīti ar šo garantiju, izskatāmi Latvijas Republikas tiesā saskaņā ar Latvijas Republikas normatīvajiem tiesību aktiem.
 - 9.5.2. Apdrošināšana par piedāvājuma nodrošinājuma summu, kuras polises nosacījumiem un izsniegšanas kritērijiem jāatbilst šādiem noteikumiem:
 - 9.5.2.1.apdrošinātājam jāaņem samaksāt Pasūtītājam līguma izpildes nodrošinājuma summu iepirkuma līgumā (5.pielikums) noteiktajos gadījumos;
 - 9.5.2.2.apdrošināšanas polisei jābūt spēkā visā iepirkuma līguma darbības laikā un līdz pieņemšanas-nodošanas akta abpusējai parakstīšanas dienai un izpildāmai, sākot ar desmito dienu no līguma noslēgšanas dienas, t.i. apdrošināšanas prēmijai jābūt samaksātai ne vēlāk kā desmitajā dienā no līguma noslēgšanas dienas, ko pierāda Pretendenta iesniegtais samaksu apliecinājošais dokuments;
 - 9.5.2.3.polisei jābūt no Pretendenta puses neatsaucamai;
 - 9.5.2.4.Pasūtītājam nav jāpieprasa nodrošinājuma summa no Pretendenta pirms prasības iesniegšanas apdrošinātājam;
 - 9.5.2.5.prasības un strīdi, kas saistīti ar šo apdrošināšanas polisi, izskatāmi Latvijas Republikas tiesā saskaņā ar Latvijas Republikas normatīvajiem tiesību aktiem.
 - 9.6. Ja Pretendents līguma izpildes nodrošinājumu neiesniedz, Pasūtītājs ir tiesīgs vienpusēji izbeigt līgumu.
 - ~~9.7. Līgums tiks slēgts par visu tehniskajās specifikācijās minēto darbu apjomu, tomēr Pretendentam jāņem vērā, ka Pasūtītājs pēc l-starpziņojuma saņemšanas un tā apstiprināšanas, balstoties uz l-starpziņojumā iekļauto informāciju, kā arī ņemot vērā projekta virzību Lietuvā un Igaunijā, ir tiesīgs nepasūtīt un atteikties no šādu Pakalpojuma daļu izstrādes bez jebkādam soda sankcijām no otra līdzēja puses:~~
 - ~~9.7.1. skīču projektu izstrādes un / vai~~
 - ~~9.7.2. grozījumu veikšanas spēkā esošajos pašvaldību teritorijas attīstības plānošanas dokumentos un / vai~~
 - ~~9.7.3. lokālplānojuma izstrādes kādā pašvaldības teritorijā, tajā skaitā stratēģiskā IVN izstrādes.~~
 - ~~9.8. Gadījumā, ja visu kvalificējušos Pretendentu piedāvātās līgumcenas pārsniedz plānoto līgumcenu, Pasūtītājs ir tiesīgs atteikties no šādu Pakalpojuma daļu izstrādes un neiekļaut tās līgumā:~~
 - ~~9.8.1. skīču projektu izstrādes un / vai~~
 - ~~9.8.2. grozījumu veikšanas spēkā esošajos pašvaldību teritorijas attīstības plānošanas dokumentos un / vai~~
 - ~~9.8.3. lokālplānojuma izstrādes kādā pašvaldības teritorijā, tajā skaitā stratēģiskā IVN izstrādes.~~
 - ~~9.9. Pretendentiem, iesniedzot piedāvājumus, jāņem vērā šādas iespējamās izmaiņas darbu apjomos līgumsarunu vai līguma īstenošanas laikā:~~
- (ar 2013.gada 8.aprīļa grozījumiem)

10. Citi noteikumi

- 10.1. Konkursa nolikums ir izstrādāts uz 23 (divdesmit trīs) lapām, neieskaitot pielikumus. Visi pielikumi ir šī nolikuma neatņemamas sastāvdaļas.
- 10.2. Nolikumam pievienoti šādi pielikumi:
 - Pielikums Nr.1 – „Tehniskā specifikācija”;
 - Pielikums Nr.2 – „Pieteikuma veidlapa dalībai konkursā”;
 - Pielikums Nr.3 – „CV veidlapa”;
 - Pielikums Nr.4 – „Finanšu piedāvājuma veidlapa”;
 - Pielikums Nr.5 – „Līguma projekts”.

TEHNISKĀ SPECIFIKĀCIJA

Pielikums Nr.1

PIETEIKUMS DALĪBAI ATKLĀTĀ KONKURSĀ

Atklāts konkurss: Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums, identifikācijas Nr. SAM 2012/12 TEN-T

Kam: Latvijas Republikas Satiksmes ministrija
Gogoļa iela 3, Rīga, LV-1743

Godātā konkursa komisija,

1. Piedāvāju slēgt līgumu par Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēto tehnisko izpēti un ietekmes uz vidi novērtējuma veikšanu saskaņā ar Latvijas Republikas Satiksmes ministrijas rīkotā atklātā konkursa „Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums, identifikācijas Nr. SM 2012/12 TEN-T” nolikuma noteikumiem.
2. Apliecinu, ka neesam snieguši nepatiesu informāciju savas kvalifikācijas novērtēšanai.
3. Apliecinu, ka uz mums, uz mūsu apakšuzņēmējiem un/vai uz mūsu personu apvienības dalībniekiem neattiecas PIL 39.panta pirmajās daļas 1., 2., 3., 4., 5.,10. un 11.punktā noteiktie izslēgšanas nosacījumi.
4. Piekrītu konkursa noteikumiem, atzīstam tos par sev saistošiem un piekrītam tos izpildīt.
5. Piekrītu konkursa nolikumam pievienotā līguma projekta noteikumiem un nosacījumiem.
6. Apstiprinu, ka pievienotie dokumenti veido šo piedāvājumu.
7. Apstiprinu, ka mūsu piedāvājums ir spēkā normatīvajos aktos noteiktajā kārtībā.
8. Informācija par Pretendentu:

Pretendenta nosaukums:

Vienotās reģ. Nr.:

Nod. maksāt. reģ. Nr.:

Juridiskā adrese:

Biroja adrese:

Tālrunis:

Fakss:

E-pasts:

Kontaktpersona

(vārds, uzvārds, amats):

Banka:

Kods:

Konta Nr.:

Ar šo uzņemos pilnu atbildību par atklātajam konkursam iesniegto dokumentu komplektāciju, tajos ietverto informāciju, noformējumu, atbilstību nolikuma prasībām. Sniegtā informācija un dati ir patiesi.

Visa piedāvājuma dokumentu pakete sastāv no _____ caursūtām lapām _____ sējumos.

Paraksts: _____

Vārds, uzvārds: _____

Amats: _____

Pieteikums sagatavots un parakstīts 201_ . gada _____

CV VEIDLAPA

Amats pakalpojuma izpildes laikā:

1. Uzvārds:
2. Vārdi:
3. Dzimšanas datums:
4. Izglītība:

Mācību iestāde [datums no – līdz]	Saņemtais grāds/diploms

5. Valodu prasmes: Norādiet zināšanu līmeni no 1 līdz 5 (5 - izcili; 1 - pamatzināšanas)

Valoda	Lasītprasme	Mutiski	Rakstiski

6. Pašreizējais amats:
7. Profesionālā pieredze gados:
8. Galvenā kvalifikācija (kas attiecas uz projektu):
9. Profesionālā pieredze (kas attiecas uz projektu):

Datums no – līdz	Vieta	Uzņēmums	Amats	Projekta nosaukums un īss apraksts, lai apliecinātu konkursa nolikuma 3.3.2.apakšpunkta prasības

(ar 2013.gada 27.februāra grozījumiem)

10. Dalība profesionālās organizācijās:
11. Citas prasmes (piem. datorprasme, utt.):
14. Cita būtiska informācija (piem. publikācijas):
15. Apliecinājums:

Es, apakšā parakstījies, apliecinu, ka šis CV satur patiesas ziņas par mani, manām zināšanām, kvalifikāciju un pieredzi. Es apzinos, ka nepatiesas informācijas sniegšana šeit var būt par noraidīšanas iemeslu.

Es piekrītu piedalīties konkursā par Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēto tehnisko izpēti un ietekmes uz vidi novērtējumu minēto pakalpojumu izpildi ar Pretendentu <pretendenta nosaukums>. Ja Pretendents uzvarēs šajā konkursā, es apliecinu, ka es varu un vēlos pildīt šo darbu paredzētajā amatā, par ko ir iesniegts mans CV.

 [Speciālista paraksts]

Datums.....

FINANŠU PIEDĀVĀJUMS

Atklāts konkurss: **Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēto tehnisko izpēti un ietekmes uz vidi novērtējums**, identifikācijas Nr. SAM 2012/12 TEN-T.

sastādīšanas vieta

datums

Saskaņā ar atklātā konkursa „Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēti un ietekmes uz vidi novērtējums”, iepirkuma identifikācijas Nr. SAM 2012/12 TEN-T nolikumu, mēs apstiprinām, ka piekritam atklāta konkursa „Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēti un ietekmes uz vidi novērtējums” nolikuma noteikumiem, un piedāvājam veikt nolikumā minētos darbus saskaņā ar Tehniskajām specifikācijām, atklāta konkursa nolikuma un līguma projekta nosacījumiem par kopējo summu:

Pakalpojums	Piedāvātā cena EUR (bez PVN)	PVN EUR	Kopējā piedāvātā cena EUR (ar PVN)
Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēti un ietekmes uz vidi novērtējums			
- t.sk. ietekmes uz vidi novērtējums pamatlīnijai			
- t.sk. ietekmes uz vidi novērtējums dzelzceļa līnijas ievadiem Rīgā un savienojumiem ar Lidostu un Rīgas brīvostu			
- t.sk. detalizēti tehniskie risinājumi pamatlīnijas galvenajam variantam			
- t.sk. detalizēti tehniskie risinājumi dzelzceļa līnijas ievadiem Rīgā un savienojumiem ar Lidostu un Rīgas brīvostu			
- t.sk. sliču projekta izstrāde (papildus detalizētiem tehniskiem risinājumiem pamatlīnijas galvenajam variantam un detalizētiem tehniskiem risinājumiem dzelzceļa līnijas ievadiem Rīgā un savienojumiem ar Lidostu un Rīgas brīvostu)			

- t.sk. grozījumu veikšana spēkā esošajos pašvaldību teritorijas attīstības plānošanas dokumentos izstrādājot lokālplānojumus, tajā skaitā stratēģiskā IVN izstrāde, ja nepieciešams (detalizēti norādot arī vienas vienības, tas ir, viena lokālplānojuma un viena stratēģiskā IVN veikšanas izmaksas)			
- t.sk. lokālplānojuma izstrāde kādā pašvaldības teritorijā, tajā skaitā stratēģiskā IVN izstrāde, ja nepieciešams (detalizēti norādot arī vienas vienības, tas ir, viena lokālplānojuma un viena stratēģiskā IVN veikšanas izmaksas)			

(Ar 2013.gada 8.aprīļa grozījumiem)

Apstiprinām, ka Finanšu piedāvājuma cenā ir iekļautas visas pakalpojumu izmaksas, visi normatīvajos aktos paredzētie nodokļi un visas ar paredzamā līguma izpildi saistītās izmaksas, **tai skaitā izmaksas ar visiem riskiem un iespējamām sadārdzinājumiem.**

Ar šo apstiprinu piedāvājumā sniegto ziņu patiesumu un precizitāti.

Pilnvarotās personas paraksts:

Pilnvarotās personas vārds, uzvārds,

amats:

Pretendenta nosaukums:

Vieta, datums:

IEPIRKUMA LĪGUMA PROJEKTS

**Līdzfinansējusi Eiropas Savienība**
Eiropas Transporta tīkls (TEN-T)

LĪGUMS Nr. ____

**Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā
izpēte un ietekmes uz vidi novērtējums**

Rīgā, 201_. gada ____

Latvijas Republikas Satiksmes ministrija, <juridiskā adrese, reģ. Nr., personas, kas paraksta vārds, uzvārds> personā, kurš darbojas saskaņā ar Ministru kabineta 2003. gada 29. aprīļa noteikumiem Nr. 242 „Satiksmes ministrijas nolikums”, (turpmāk – *Pasūtītājs*) no vienas puses, un <Izpildītāja nosaukums, juridiskā adrese, reģ. Nr., personas, kas paraksta vārds, uzvārds> personā, kurš darbojas uz ____ pamata (turpmāk – *Izpildītājs*), no otras puses, abas puses turpmāk kopā – Puses un katra atsevišķi - Puse, saskaņā ar iepirkuma Nr. ____ komisijas 201_. gada ____ lēmumu (protokols Nr. _), noslēdz šādu līgumu, (turpmāk – Līgums):

1. Līguma priekšmets

1.1. *Pasūtītājs* pasūta un *Izpildītājs* apņemas veikt Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizētu tehnisko izpēti saskaņā ar Tehnisko specifikāciju un savu piedāvājumu (turpmāk – *Pakalpojums*).

1.2. Šis Līgums sastāv no šādām daļām, kas uzskatāmas par šī Līguma neatņemamām sastāvdaļām:

1.2.1. šis Līgums;

1.2.2. *Pakalpojuma* izpildes laika grafiks;

1.2.3. Pielikums Nr.1 - Tehniskā specifikācija;

1.2.4. Pielikums Nr.2 – *Izpildītāja* piedāvājums (netiek cauršūts kopā ar Līgumu).

1.3. Jebkuru nesaskaņu vai pretrunu gadījumā starp iepriekš minētajiem dokumentiem, prioritāte dokumentiem ir tādā secībā, kādā tie uzskaitīti 1.2.punktā.

2. Līgumcena un norēķināšanās kārtība

2.1. Kopējā līgumcena par *Pakalpojuma* izpildi nepārsniedz **EUR ____** (cena vārdiem) bez pievienotās vērtības nodokļa (PVN). Pievienotās vērtības nodoklis tiek piemērots saskaņā ar spēkā esošajiem normatīvajiem aktiem. Kopējo līguma summu par *Pakalpojuma* izpildi veido līgumcenas un PVN summa. Kopējā līgumcena ietver visas izmaksas, kas attiecas uz *Pakalpojuma* veikšanu. Jebkuras izmaiņas attiecībā uz līgumcenu ir spēkā vienīgi Pusēm rakstiski vienojoties.

2.2. Līguma darbības laikā tiek veikts priekšapmaksas maksājums, trīs starpmaksājumi un noslēguma maksājums:

2.2.1. *Izpildītājs* ir tiesīgs saņemt priekšapmaksu līdz 20 % (divdesmit procentiem) no kopējās līgumcenas, ja *Izpildītājs* 10 (desmit) darba dienu laikā pēc Līguma abpusējas parakstīšanas iesniedz *Pasūtītājam* rēķinu un bankas galvojumu par priekšapmaksas summu *Pasūtītājam*

pieņemamā formā. Priekšapmaksas bankas galvojumam jābūt spēkā visā Līguma darbības laikā un līdz *Pakalpojuma* pieņemšanas-nodošanas akta abpusējai parakstīšanas dienai. No katra starpmaksājuma un noslēguma maksājuma *Pasūtītājs* ietur 25% no priekšapmaksas, atskaitot tos no *Izpildītāja* izrakstītajos rēķinos norādītajām summām;

(ar 2013.gada 16.aprīļa grozījumiem)

2.2.2. *Pasūtītājs* veic trīs starpmaksājumus, no kuriem tiek atrēķināta saņemtā priekšapmaksa Līguma 2.2.1.punktā norādītajā apmērā. Katrs starpmaksājums tiek veikts pēc Tehniskajā specifikācijā noteikto ziņojumu – papildinātā un precizētā 2.starpziņojuma (30% apmērā no Līguma 2.1.punktā norādītās kopējās līgumcenas), papildinātā un precizētā 3.starpziņojuma starpziņojuma (20% apmērā no Līguma 2.1.punktā norādītās kopējās līgumcenas) un papildinātā Noslēguma ziņojuma projekta starpziņojuma (30% apmērā no Līguma 2.1.punktā norādītās kopējās līgumcenas) (turpmāk tekstā - *Pakalpojuma daļa*) - iesniegšanas, apstiprināšanas no *Pasūtītāja* puses, un pēc *Pakalpojuma daļas* nodošanas - pieņemšanas akta abpusējas parakstīšanas un rēķina saņemšanas no *Izpildītāja*;

(ar 2013.gada 16.aprīļa grozījumiem)

2.2.3. noslēguma maksājums – atlikusī summa no kopējās līgumcenas, ~~bet ne vairāk kā 20%,~~ *Izpildītājam* tiek izmaksāta pēc *Pakalpojuma* nodošanas – pieņemšanas akta abpusējas parakstīšanas un rēķina saņemšanas no *Izpildītāja*.

(ar 2013.gada 16.aprīļa grozījumiem)

2.3. Par katru nokavēto *Pakalpojuma* izpildes laika grafikā norādīto *Pakalpojuma daļas* iesniegšanas dienu *Pasūtītājam* ir tiesības rīkoties atbilstoši Līguma 5.13.punktam.

2.4. Par katru nokavēto maksājuma veikšanas dienu *Izpildītājs* ir tiesīgs prasīt *Pasūtītājam* līgumsodu 0,5 (nulle, komats, piecu) procentu apmērā no nesamaksātās summas par katru nokavēto dienu, bet ne vairāk kā 10 (desmit) procentus no nokavētā maksājuma summas.

2.5. Līguma 2.4. un 5.13.apakšpunktos noteiktā līgumsoda samaksa nevienam no Pusēm neatbrīvo no saistību izpildes un nodarīto zaudējumu atlīdzināšanas, ja tādi ir radušies Puses prettiesiskas rīcības rezultātā un ir konstatēti un dokumentāli pierādīti zaudējumu nodarītāja vaina.

2.6. Visi maksājumi tiek veikti 60 (sešdesmit) dienu laikā no brīža, kad *Pasūtītājs* ir saņēmis atbilstoši normatīvajiem aktiem un Līguma noteikumiem sagatavotus rēķinus. Samaksu par sniegtajiem pakalpojumiem *Pasūtītājs* veic ar pārskaitījumu uz *Izpildītāja* Līgumā norādīto bankas kontu.

2.7. Samaksa *Izpildītājam* tiek veikta no Eiropas Komunikāciju tīklu (TEN-T) budžeta un valsts budžeta programmas „Finansējums Eiropas Savienības politiku instrumentu un pārējās ārvalstu finanšu palīdzības līdzfinansēto projektu un pasākumu īstenošanai” finanšu līdzekļiem.

2.8. Nekvalitatīvi vai Līguma noteikumiem neatbilstoši veikts *Pakalpojums* vai tā daļa netiek pieņemti un apmaksāti līdz trūkumu novēršanai un *Pakalpojuma* vai attiecīgās daļas pieņemšanai.

2.9. Par samaksas brīdi uzskatāms bankas atzīmes datums *Pasūtītāja* maksājuma uzdevumā.

3. Pušu tiesības un pienākumi

3.1. *Izpildītājam ir tiesības:*

3.1.1. konsultēties ar *Pasūtītāja* kontaktpersonu par neskaidriem jautājumiem, kas saistīti ar *Pakalpojuma* veikšanu;

3.1.2. *Pakalpojuma* sniegšanai *Izpildītājs* ir tiesīgs izmantot publiski pieejamus un ticamus informācijas avotus;

3.1.3. pēc Tehniskajā specifikācijā un *Pakalpojuma* izpildes laika grafikā noteiktās *Pakalpojuma daļas*, priekšapmaksas bankas galvojuma, ja tiek veikta priekšapmaksa, iesniegšanas *Pasūtītājam* un abpusējas *Pakalpojuma* vai *Pakalpojuma daļas* pieņemšanas – nodošanas akta parakstīšanas, saskaņā ar šajā Līgumā norādīto kārtību, saņemt samaksu par sniegto *Pakalpojumu* vai *Pakalpojuma daļu*.

3.2. ***Izpildītājam ir pienākums:***

3.2.1. sniegt *Pakalpojumu* atbilstoši šim Līgumam, tā pielikumiem, iesniegtajam piedāvājumam un ievērojot Latvijas Republikas un Eiropas Savienības normatīvos aktus;

3.2.2. sniegt *Pakalpojumu* saskaņā ar *Pakalpojuma* izpildes laika grafiku, Tehniskajā specifikācijā noteikto kārtību un prasībām;

3.2.3. nodrošināt informācijas, kas iegūta *Pakalpojuma* izpildei, izmantošanu atbilstoši normatīvajiem aktiem par informācijas atklātību. Līguma izpildes laikā jebkuru rakstveidā vai mutvārdos no *Pasūtītāja* vai trešajām personām iegūto informāciju un radītās materiālās un nemateriālās vērtības *Izpildītājam* bez *Pasūtītāja* rakstveida atļaujas aizliegts izmantot mērķiem, kas nav saistīti ar *Pakalpojuma* izpildi, izmantot komerciāliem mērķiem, publiskot to, paziņot par to trešajām personām, padarīt publiski pieejamu, pavairot to vai veikt jebkādas citas darbības, kas nav saistītas ar *Pakalpojuma* izpildi. Gadījumos, kad *Izpildītājs* saņemis *Pasūtītāja* rakstveida piekrišanu informācijas izmantošanai, *Pasūtītājs* patur tiesības šādu atļauju atsaukt, savlaicīgi informējot *Izpildītāju*;

3.2.4. pēc *Pasūtītāja* pieprasījuma ne vēlāk kā trīs darba dienu laikā sniegt jebkādu informāciju par *Pakalpojuma* izpildes gaitu, kā arī pēc *Pasūtītāja* pieprasījuma piedalīties *Pasūtītāja* organizētajās sanāksmēs;

3.2.5. novērst visas *Pasūtītāja* konstatētās neprecizitātes sniegtajā *Pakalpojumā* vai *Pakalpojuma* daļā, ja *Pasūtītājs* ir uz tām norādījis.

3.3. ***Pasūtītājam ir tiesības:***

3.3.1. pieprasīt un ne vēlāk kā trīs darba dienu laikā saņemt no *Izpildītāja* informāciju par *Pakalpojuma* izpildes gaitu;

3.3.2. ne biežāk kā vienu reizi divās nedēļās aicināt *Izpildītāju* sniegt informāciju par *Pakalpojuma* izpildes gaitu ar mērķi noteikt *Pakalpojuma* izpildes progresu un precizēt turpmāko rīcību, kā arī pārrunāt neskaidros jautājumus;

3.3.3. neapstiprināt *Izpildītāja* sniegto *Pakalpojumu* vai *Pakalpojuma* daļu un neparakstīt nodošanas – pieņemšanas aktu, ja *Pakalpojumā* vai *Pakalpojuma* daļā tiek konstatētas neprecizitātes vai kļūdas, kas būtu novēršamas. Visas konstatētās neprecizitātes vai kļūdas *Pasūtītājs* norāda rakstveidā;

3.3.4. neapstiprināt *Izpildītāja* sniegto *Pakalpojumu* vai *Pakalpojuma* daļu, no savas puses neparakstot nodošanas – pieņemšanas aktu, ja nav novērstas visas *Pasūtītāja* iepriekš konstatētās neprecizitātes vai kļūdas;

3.3.5. ja *Pakalpojuma* vai *Pakalpojuma* daļas izpilde tiek kavēta ilgāk par četrām nedēļām, *Pasūtītājam* ir tiesības vienpusēji izbeigt Līgumu, par to rakstiski informējot *Izpildītāju*. Šajā gadījumā par neizpildīto *Pakalpojumu* vai *Pakalpojuma* daļu samaksa netiek veikta;

3.3.6. vienpusēji izbeigt Līgumu, ja *Izpildītājam* piemēroto līgumsodu summa ir sasniegusi 10 (desmit) procentus no kopējās līgumcenas;

3.3.7. vienpusēji izbeigt Līgumu, rakstiski brīdinot par to *Izpildītāju*, ja tiek konstatēts, ka *Izpildītājs* savā darbībā rupji neievēro un pārkāpj Latvijas Republikas un Eiropas Savienības tiesību aktu normas, šī Līguma vai Tehniskās specifikācijas noteikumus.

3.3.8. ja *Izpildītājs* neievēro *Pakalpojuma* izpildes laika grafiku *Pasūtītājs*, ja tas viņam ir nepieciešams, var atteikties no kādas *Pakalpojuma* daļas, attiecīgi samazinot *Izpildītājam* veicamo maksājumu.

~~3.3.9. Līgums tiek slēgts par visu Tehniskajā specifikācijā minēto darba apjomu, tomēr *Pasūtītājs* pēc pirmās *Pakalpojuma* daļas saņemšanas un tā apstiprināšanas, balstoties uz tajā iekļauto informāciju, kā arī ņemot vērā projektu virzību Lietuvā un Igaunijā, ir tiesīgs nepasūtīt un atteikties no šādu Tehniskajā specifikācijā minēto darbu izstrādes bez jebkādam soda sankcijām no otra līdzēja puses, proporcionāli samazinot *Pakalpojuma* līgumcenu.~~

~~3.3.9.1. ———— skaidru projekta izstrādes un/vai~~

~~3.3.9.2. ———— grozījumu veikšanas spēkā esošajos pašvaldību teritorijas attīstības plānošanas dokumentos un/vai~~

(ar 2013. gada 8. aprīļa grozījumiem)

3.4. **Pasūtītājam ir pienākums** pēc *Izpildītāja* pieprasījuma, kā arī pēc saviem ieskatiem, nodrošināt *Izpildītāju* ar visu *Pasūtītāja* rīcībā esošo informāciju, kas nepieciešama *Pakalpojuma* izpildei un kas nav pretrunā ar normatīvajos aktos noteiktajiem dokumentu lietošanas ierobežojumiem, kā arī drošības prasībām attiecīgajās jomās.

3.5. *Izpildītājs* garantē, ka *Pakalpojums* tiks sniegts rūpīgi, profesionāli, prasmīgi un atbilstoši Līgumā un Tehniskajā specifikācijā izvirzītajām prasībām.

3.6. *Pasūtītājs* patur visas īpašumtiesības uz *Pakalpojumu* vai *Pakalpojuma* daļām pēc nodošanas - pieņemšanas akta parakstīšanas. *Izpildītājs* patur visas īpašumtiesības un citas tiesības uz visām ar darba uzdevuma veikšanu saistītajām metodoloģijām, procesiem, tehnikām, idejām, koncepcijām, komercnoslēpumiem un prasmi (*know-how*).

3.7. *Pakalpojuma* izpildes rezultātā izstrādātie materiāli un autortiesības uz tiem ir *Pasūtītāja* īpašums.

3.8. *Pasūtītājs* ir tiesīgs mainīt, pārstrādāt, dalīt daļās un publicēt *Izpildītāja* iesniegtos materiālus bez *Izpildītāja* atļaujas, norādot, kas un kāpēc ir veicis šīs darbības.

3.9. Ja *Pakalpojuma* izpildes laikā tiek radīta vērtība, kas var tikt uzskatīta par autortiesību objektu, ar *Pakalpojuma* vai *Pakalpojuma* daļas pieņemšanas - nodošanas akta parakstīšanas brīdī *Izpildītājs* nodod *Pasūtītājam* visas Latvijas Republikas Autortiesību likuma 15. pantā noteiktās autora mantiskās tiesības un *Izpildītājam* nepienākas papildu atlīdzība.

3.10. *Izpildītājs* ir atbildīgs un sedz visus tiešos *Pasūtītāja* zaudējumus, kas radušies *Izpildītāja*, *Izpildītāja* darbinieku, apakšuzņēmēju un/vai pārstāvju rupjas neuzmanības vai apzināti ļaunprātīgas rīcības rezultātā.

3.11. *Puses* savus pienākumus pilda godprātīgi un tiesības izlieto pēc labas ticības.

4. Līguma termiņš un spēkā esamība

4.1. Līgums stājas spēkā ar dienu, kad to ir parakstījušas abas Puses.

4.2. Līguma izpilde *Izpildītājam* jāuzsāk Līguma parakstīšanas dienā un jāpabeidz divdesmit astoņu mēnešu laikā no Līguma abpusējas parakstīšanas dienas.

4.3. Līgums ir spēkā līdz visu *Pušu* saistību pilnīgai izpildei. Ja Līgums tiek izbeigts pirms visu *Pušu* saistību pilnīgai izpildei, atlikusī līgumcena tiek izmaksāta saskaņā ar šī Līguma 4.4. punktā noteikto.

4.4. Izbeidzot Līgumu, Puses sagatavo un abpusēji paraksta atsevišķu aktu par faktiski izpildīto *Pakalpojuma* apjomu un vērtību. Sagatavojot aktu, Puses ņem vērā izpildītā *Pakalpojuma* kvalitāti. *Pasūtītājs* samaksā *Izpildītājam* par saskaņā ar Līguma noteikumiem sniegto *Pakalpojumu* atbilstoši sagatavotajam un abpusēji parakstītajam aktam. Izdarot samaksu, *Pasūtītājs* ir tiesīgs ieturēt aprēķināto līgumsodu un/vai zaudējumus. Puses savstarpējos norēķinus šajā punktā minētajā gadījumā veic 30 (trīsdesmit) dienu laikā pēc šajā punktā minētā akta abpusējas parakstīšanas.

4.5. Līguma darbība var tikt izbeigta *Pusēm* par to rakstiski vienojoties.

5. Līguma vadība un Pakalpojuma vai Pakalpojuma daļas pieņemšanas kārtība

5.1. Līguma vadību nodrošina *Pasūtītāja* izveidota projekta Nacionālā vadības grupa.

5.2. Nacionālās vadības grupas lēmumi un ieteikumi ir saistoši *Izpildītājam* un to neievērošana uzskatāma par Līguma pārkāpumu.

5.3. Nacionālā vadības grupa izvērtē un apstiprina *Izpildītāja* izstrādātos dokumentus un ziņojumus vai nodod tos precizēšanai, izskata problēmas un to risinājumus, termiņus, kā arī Līguma grozījumu priekšlikumus.

5.4. *Izpildītājs* nekavējoties brīdina *Pasūtītāju* par apstākļiem, kas var ietekmēt Līguma izpildes kvalitāti, termiņus vai līgumcenu, un iesniedz novērtējumu par ietekmi uz Līguma izpildi.

5.5. *Izpildītājs* nodod *Pasūtītājam* *Pakalpojumu* vai *Pakalpojuma* daļas atbilstoši Tehniskajā specifikācijā noteiktajām prasībām un *Pakalpojuma* izpildes laika grafikā norādītajiem termiņiem.

5.6. *Pakalpojumu* vai *Pakalpojuma* daļas *Izpildītājs* iesniedz no savas puses parakstīta papīra dokumenta veidā divos eksemplāros un elektroniski, nosūtot to uz *Pasūtītāja* kontaktpersonas elektroniskā pasta adresi.

5.7. *Izpildītājs* iesniedzot *Pakalpojumu* vai *Pakalpojuma* daļu pievieno no savas puses parakstītu nodošanas – pieņemšanas aktu. Nodošanas – pieņemšanas akts tiek iesniegts divos eksemplāros.

5.8. *Pasūtītājs* izvērtē *Izpildītāja* sagatavoto un iesniegto *Pakalpojumu* vai *Pakalpojuma* daļu un ja pasūtītājs to apstiprina, tiek abpusēji parakstīts nodošanas – pieņemšanas akts.

5.9. Ja *Pasūtītājs* neapstiprina *Pakalpojumu* vai *Pakalpojuma* daļu, tad *Pasūtītājs* iesniedz *Izpildītājam* rakstisku pamatojumu šādai rīcībai un pieprasa novērst konstatētās neprecizitātes vai kļūdas, norādot termiņu neprecizitāšu vai kļūdu novēršanai, kas jebkurā gadījumā nebūs īsāks par 3 (trīs) darba dienām. Šādā gadījumā nodošanas – pieņemšanas akts abpusēji tiek parakstīts pēc visu konstatēto neprecizitāšu vai kļūdu novēršanas.

5.10. *Pakalpojums* vai *Pakalpojuma* daļa tiek uzskatīta par nodotu termiņā, ja saskaņā ar *Pakalpojuma* izpildes laika grafikā noteikto termiņu tiek parakstīts nodošanas – pieņemšanas akts.

5.11. Pēc nodošanas – pieņemšanas akta abpusējas parakstīšanas, *Izpildītājs* iesniedz pasūtītājam rēķinu. *Pasūtītājs* neapmaksā rēķinus, kuri iesniegti pirms attiecīgā nodošanas-pieņemšanas akta abpusējas parakstīšanas.

5.12. *Pakalpojuma* un *Pakalpojuma* daļu nodošanas - pieņemšanas aktus no *Pasūtītāja* puses tiek pilnvarots parakstīt _____, bet no *Izpildītāja* puses _____.

5.13. Ja *Izpildītājs* *Pasūtītāja* norādītajā termiņā nenovērs *Pasūtītāja* konstatētās neprecizitātes vai kļūdas, tad *Pasūtītājam* ir tiesības piemērot *Izpildītājam* līgumsodu par nokavējumu 0,5% apmērā no attiecīgā starpmaksājuma vai noslēguma maksājuma summas, bet ne vairāk kā 10% no kopējās līgumcenas. Līgumsodu *Pasūtītājs* ir tiesīgs ieturēt, par līgumsoda apmēru samazinot *Izpildītājam* veicamo maksājumu. Ja līgumsoda apmērs pārsniedz 10% no kopējās līgumcenas, *Pasūtītājs* ir tiesīgs vienpusēji izbeigt Līgumu.

5.14. Līguma izpildes valoda ir latviešu valoda (sarakste starp *Pasūtītāju* un *Izpildītāju*, iesniegtie dokumenti, sanāksmju protokoli, u.c.).

6. Pušu kontaktpersonas

6.1. *Pasūtītāja* kontaktpersona Līguma izpildes laikā ir _____, tālrunis: _____; fakss: _____; e-pasts: _____.

6.2. *Izpildītāja* kontaktpersona Līguma izpildes laikā ir _____, tālrunis: _____; fakss _____; e-pasts: _____.

6.3. *Puse* par jebkurām Līguma 6.1. un 6.2. apakšpunktā norādītās informācijas izmaiņām elektroniski paziņo otrai *Pusei* vienas darba dienas laikā.

7. Līguma izpildē iesaistītais personāls

7.1. Par Līguma izpildē iesaistīto personālu uzskatāms *Izpildītāja* piedāvājumā iekļautais personāls.

7.2. Ja nepieciešams, *Izpildītājs* ir tiesīgs papildus piesaistīt speciālistus, kuri nav iekļauti *Izpildītāja* piedāvājumā, informējot par to *Pasūtītāju*.

7.3. Bez rakstiskas *Pasūtītāja* piekrišanas nedrīkst nomainīt Līguma 7.1. apakšpunktā minēto personālu.

7.4. Ja *Pasūtītājs* piekritis darbinieka piesaistei, kas aizstās esošo darbinieku, tad jaunā darbinieka kvalifikācijai un pieredzei ir jābūt līdzvērtīgai vai labākai par aizstājamā darbinieka kvalifikāciju un pieredzi.

7.5. *Pakalpojuma* veikšanai *Izpildītājs* drīkst piesaistīt tikai savā piedāvājumā minētos apakšuzņēmējus.

7.6. *Izpildītāja* apakšuzņēmēju maiņa iespējama tikai ar *Pasūtītāja* rakstveida piekrišanu. Jauno apakšuzņēmēju kvalifikācijai un pieredzei jābūt līdzvērtīgai vai labākai kā nomaināmajiem apakšuzņēmējiem.

7.7. *Izpildītājs* ir atbildīgs par apakšuzņēmēju darbu.

7.8. *Izpildītājs* savam personālam nodrošina aprīkojumu un atbalstu, kas ir vajadzīgs, lai efektīvi pildītu tiem uzticētos pienākumus.

8. Nepārvarama vara

8.1. *Puses* tiek atbrīvotas no atbildības par Līguma saistību neizpildi, ja to izraisījuši nepārvaramas varas apstākļi, kurus *Puses* nevarēja paredzēt, kontrolēt vai novērst un par kuru iestāšanos *Puses* nav vainojamas, un kuru darbība sākusies pēc Līguma abpusējas parakstīšanas. Par nepārvaramas varas apstākļiem uzskatāmas dabas stihijas, ugunsgrēki, karadarbība, pilsoniskie nemieri, sacelšanās, streiki, epidēmijas, embargo, ierobežojumi enerģijas padevē, valdības lēmumi un citi ārpus līguma slēdzēju kontroles esoši apstākļi.

8.2. Par nepārvaramu varu nevar tikt atzīta apakšuzņēmēju, piegādātāju un citu iesaistīto personu saistību neizpilde vai nesavlaicīga izpilde.

8.3. Par nepārvaramas varas iestāšanos un pēc nepārvaramas varas beigšanās *Pusei*, kas cietusi no nepārvaramas varas, ir pienākums nekavējoties informēt otru *Pusi*.

8.4. Ja nepārvaramas varas dēļ Līguma izpilde aizkavējas ilgāk nekā par diviem mēnešiem, jebkurai no *Pusēm* ir tiesības vienpusēji izbeigt Līgumu. Ja Līgums šādā gadījumā tiek izbeigts, nevienai no *Pusēm* nav tiesības no otras *Puses* pieprasīt zaudējumu atlīdzību.

9. Līguma izpildes nodrošinājums

9.1. Desmit kalendāro dienu laikā pēc Līguma abpusējas parakstīšanas *Izpildītājs* iesniedz *Pasūtītājam* Līguma izpildes nodrošinājumu EUR ____ (____) apmērā, kuram jābūt spēkā visā Līguma darbības laikā un līdz pieņemšanas-nodošanas akta abpusējai parakstīšanas dienai.

9.2. Līguma izpildes nodrošinājumu *Pasūtītājs* ir tiesīgs izmantot, lai kompensētu *Izpildītāja* saistību neizpildes rezultātā *Pasūtītājam* nodarītos zaudējumus vai lai ieturētu līgumsodu – zaudējumu un/vai līgumsoda apmērā. Gadījumā, ja *Izpildītājam* Līguma izpildes nodrošinājums ir jāpagarina, lai ievērotu Līguma 9.1.punkta prasības, bet *Izpildītājs* 3 (trīs) dienas pirms Līguma izpildes nodrošinājuma termiņa beigām Līguma izpildes nodrošinājumu nav pagarinājis, *Pasūtītājs* ir tiesīgs ieturēt Līguma izpildes nodrošinājumu pilnā apmērā.

9.3. Ja *Izpildītājs* Līguma 9.1.punktā norādītajā termiņā neiesniedz *Pasūtītājam* Līguma izpildes nodrošinājumu vai ja iesniegtais Līguma izpildes nodrošinājums ir zaudējis spēku, *Pasūtītājam* ir tiesības vienpusēji izbeigt Līgumu.

10. Noslēguma noteikumi

9.4. Pienākumi un tiesības, kas nav ietvertas Līgumā, tiek regulētas atbilstoši Latvijas Republikas normatīvajiem aktiem.

9.5. Līguma noteikumus var grozīt, *Pusēm* rakstiski par to vienojoties.

9.6. Ja kāds no Līguma punktiem zaudē spēku vai ir pretrunā ar jaunizdotajiem normatīvajiem aktiem, tas neietekmē pārējo punktu spēkā esamību. Nepieciešamības gadījumā

Līguma punkti ir grozāmi atbilstoši spēkā esošajiem normatīvajiem aktiem, lai tiktu izpildītas Līgumā noteiktās saistības.

9.7. Visi Līguma pielikumi, vienošanās, papildinājumi un grozījumi kļūst par Līguma neatņemamu sastāvdaļu, kad to parakstījušas abas *Puses*.

9.8. Līgumā izveidotais noteikumu sadalījums pa sadaļām ar tām piešķirtajiem nosaukumiem ir izmantojams tikai un vienīgi atsaucēm un nekādā gadījumā nevar tikt izmantots vai ietekmēt Līguma noteikumu tulkošanu.

9.9. Visi strīdi, kas Līguma izpildes gaitā izcēlušies starp *Pusēm* risināmi pārrunu ceļā, ja izlīgums netiek panākts, tad tiesā Latvijas Republikas normatīvajos aktos noteiktajā kārtībā,

9.10. Līgums sagatavots 2 (divos) identiskos eksemplāros uz __ (__) lapām katrs, tajā skaitā pielikums. Abiem eksemplāriem vienāds juridisks spēks. Viens Līguma eksemplārs tiek nodots *Izpildītājam*, otrs - *Pasūtītājam*.

11. Pušu rekvizīti un paraksti

PASŪTĪTĀJS:

IZPILDĪTĀJS:

/ /

/ /

Pielikums Nr.1 ATKLĀTA KONKURSA, IEPIRKUMA IDENTIFIKĀCIJAS Nr. SAM 2012/12 TEN-T, NOLIKUMAM

TEHNISKĀ SPECIFIKĀCIJA

Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums



SATURA RĀDĪTĀJS

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1. PAMATOJUMS
2. SAĪSINĀJUMU UN TERMINU SKAIDROJUMS
3. VEICAMIE UZDEVUMI
 1. UZDEVUMS - Iespējamo trases novietojumu variantu izpēte dzelzceļa līnijas ievadiem Rīgā
 2. UZDEVUMS - Detalizēti izpētīt tehniskos un telpiskos priekšnosacījumus un sagatavot priekšlikumus par dzelzceļa līnijas novietojumu
 3. UZDEVUMS – Noteikt dzelzceļa līnijas tehniskos parametrus
 4. UZDEVUMS - Sagatavot dzelzceļa līnijas trases novietojuma priekšlikumus
 5. UZDEVUMS - Sagatavot tehniskos risinājumus
 6. UZDEVUMS - Ietekmes uz vidi novērtējums
 7. UZDEVUMS - Izmaksu – ieguvumu analīze un sociālekonomiskās ietekmes izvērtējums
 8. UZDEVUMS - Sagatavot turpmāko darba plānu
 9. UZDEVUMS - Turpmāko būvprojekta sagatavošanas soļu detalizēto tehnisko specifikāciju sagatavošana
 10. UZDEVUMS - Konsultācijas ar ieinteresētajām pusēm (pašvaldībām, valsts institūcijām u.c. organizācijām) un komunikācija ar sabiedrību
4. ZIŅOJUMI UN ATSKAITES
5. Izpētes un pētījumi, dati, kas jāņem vērā pakalpojuma izpildē
 - a. DZELZCEĻU JOMĀ
 - b. AUTOCEĻU JOMĀ
 - c. RĪGAS UN PIERĪGASTRANSporta sistēmas attīstības jomā
 - d. LIDOSTU JOMĀ

1. PAMATOJUMS

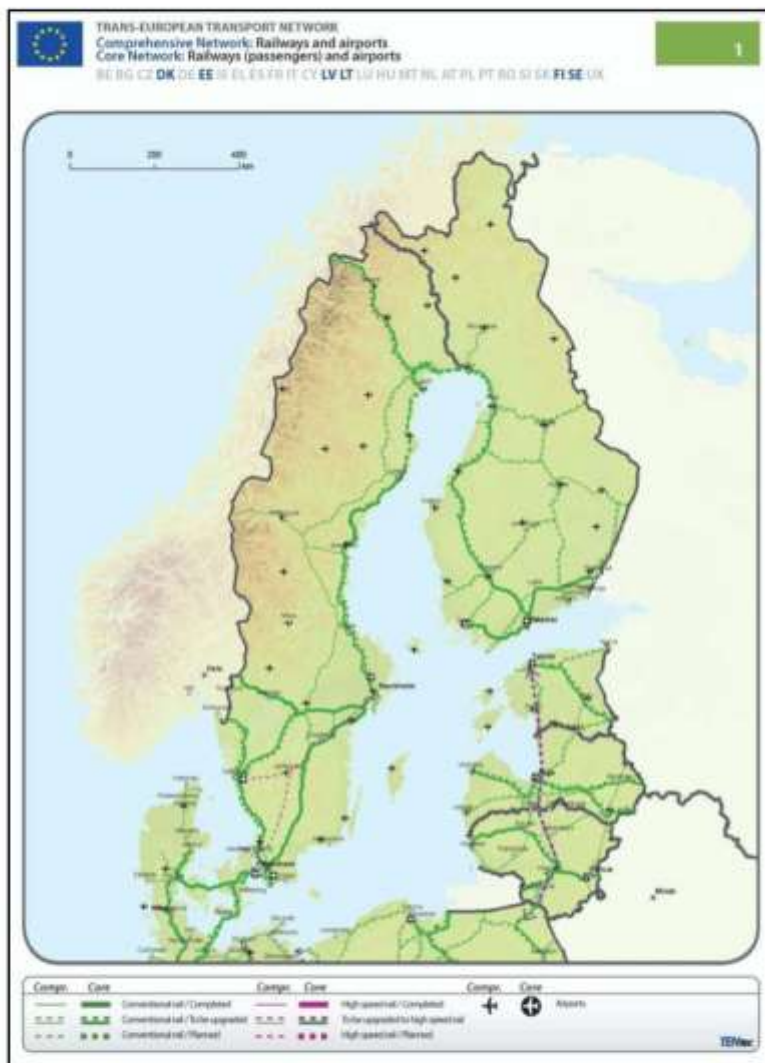


1. Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums tiek veikti Eiropas transporta tīkla (TEN-T) līdzfinansēta projekta „Pētījumi par Eiropas platuma sliežu ceļa līniju (Latvijas posms)”, projekta Nr.2007-LV-27050-S, ietvaros. Projektam piešķirts finansējums ar EK 2008.gada 11.decembra lēmumu C(2008) 7978 „Lēmums par finansiālā atbalsta piešķiršanu pasākumam 11.12.2008, kas attiecas uz Kopienas finansiālā atbalsta piešķiršanu vispārējās intereses projektiem „Pētījumi par Eiropas platuma sliežu ceļa līniju (Latvijas posms)” - 2007-LV-27050-S – Eiropas transporta tīklu (TEN-T) jomā”.
2. Iepriekšējā izpētes posmā 2010. - 2011.g. tika veikta projekta – jaunas 1435mm – Eiropas standarta platuma dzelzceļa līnijas būvniecības priekšizpēte - „Tehniski ekonomiskais pamatojums par Eiropas standarta platuma dzelzceļa līniju Igaunijā, Latvijā un Lietuvā (Rail Baltica koridors)” (“Feasibility study and technical studies of new European gauge line of Rail Baltica section Kaunas-Riga-Tallinn”). Priekšizpēti pēc trīs valstu – Igaunijas, Latvijas un Lietuvas pasūtījuma veica AECOM Ltd.
3. Šīs priekšizpētes rezultāts parādīja, ka jaunas 1435mm sliežu platuma līnijas būvniecība, kas savienotu Igauniju, Latviju un Lietuvu ar Poliju un pārējām Eiropas valstīm ir sociālekonomiski pamatota. Izpētes rezultātā tika noteikts iespējamais dzelzceļa līnijas novietojuma koridors, un tas savieno Tallinu, Rīgu un Kauņu pa īsāko un ātrāko maršrutu. Priekšizpētes ziņojuma kopsavilkums pieejams interneta vietnē:http://www.sam.gov.lv/images/modules/items/PDF/item_3187_Rail_Baltica_Final_Report_Executive_Summary_31_05_11_FINAL_v2_LV.pdf. Citi priekšizpētes ziņojuma materiāli elektroniski pieejami interneta vietnē: <http://www.tja.ee/rail-baltica-tasuvusanaluus>

Attēls Nr.1. Iepriekšējās izpētes – priekšizpētes

noteiktais Rail Baltica Eiropas standarta platuma dzelzceļa līnijas novietojuma koridors. Avots: Tehniski ekonomiskais pamatojums par Eiropas standarta platuma dzelzceļa līniju Igaunijā, Latvijā un Lietuvā (Rail Baltica koridors); AECOM, 2011.

4. 2011. gada oktobrī Eiropas Komisija izteica priekšlikumu jaunām TEN-T vadlīnijām. Vadlīniju projektā Rail Baltica līnija ir iekļauta TEN-T pamattīklā un pamattīkla Baltijas – Adrijas koridorā Nr.1. Vadlīniju projektā Rail Baltica ir identificēts kā Eiropas kopējo interešu TEN-T prioritārais projekts, kam Latvijā jāveic detalizēta tehniskā izpēte Eiropas Savienības vienotajā dzelzceļa telpā pilnībā savstarpēji izmantojamai Starptautiskās dzelzceļu savienības (UIC) standarta platuma dzelzceļa līnijai.



Attēls Nr.2 Eiropas Komisijas TEN-T dzelzceļu un lidostu tīkla projekts. Avots: Eiropas Komisija, skatīts 17.1.2012, http://ec.europa.eu/transport/infrastructure/doc/com%282011%29_650_final_2_annex_i_part05.pdf

5. **Detalizētās tehniskās izpētes mērķis** ir noteikt precīzu plānotās dzelzceļa līnijas Rail Baltica novietojumu LR teritorijā, tajā skaitā savienojumus ar ostu un lidostu, un veikt nepieciešamās izpētes un priekšdarbus dzelzceļa līnijas būvprojektēšanas, zemju atsavināšanas un būvniecības procesu uzsākšanai līdz 2020. gadam.
6. **Detalizētās tehniskās izpētes rezultāti** ir:
 - Sagatavoti tehniskie risinājumi plānotās dzelzceļa līnijas Rail Baltica tehniski, ekonomiski un juridiski iespējamajiem novietojuma variantiem;
 - Veiktas tehnisko risinājumu un detalizēto tehnisko risinājumu pamatošanai nepieciešamās inženierizpētes;
 - Veikts ietekmes uz vidi novērtējums atbilstoši normatīvajos aktos noteiktajam;

- Administratīvajās teritorijās (pašvaldībās), tur, kur nepieciešams veikt grozījumus pašvaldību teritoriju plāņos, izstrādāts jaunās dzelzceļa līnijas lokālplānojums un veikts lokālplānojuma stratēģiskais ietekmes uz vidi novērtējums, ja tāds nepieciešams;
 - Izraudzīts precīzs un no visiem aspektiem pamatots jaunās dzelzceļa līnijas novietojuma variants (galvenais dzelzceļa līnijas trases novietojuma variants);
 - Galvenajam dzelzceļa līnijas trases novietojuma variantam izstrādāti detalizēti tehniskie risinājumi ~~skīču projektam atbilstošā detalizācijas pakāpē~~ un sagatavota nepieciešamā tehniskā dokumentācija, lai uzsāktu nākamo projekta etapu – būvprojektēšanu un būvniecību ~~atbilstoši Būvniecības likumam un saistošajiem normatīvajiem aktiem¹~~;
(ar 2013.gada 8.aprīļa grozījumiem)
 - Galvenajam dzelzceļa līnijas trases novietojuma variantam sagatavotas rekomendācijas zemju atsavināšanai un Pasūtītāja rīcībai attiecībā uz vietējo pašvaldību teritorijas attīstības plānošanas dokumentiem;
 - Sagatavotas tehniskās specifikācijas un Pasūtītāja prasības iepirkumiem būvprojektēšanai, būvniecībai un saistītajiem procesiem, tajā skaitā projektēšanas uzdevums;
 - Veikta projekta pilna izmaksu – ieguvumu analīze, tajā skaitā Visiem apstiprinātajiem dzelzceļa līnijas novietojuma variantiem un apakšvariantiem, nosakot papildus izmaksas, ieņēmumus, sociālekonomiskos ieguvumus un zaudējumus salīdzinājumā ar Pamatvariantu, balstoties uz iepriekšējās izpētes rezultātiem.
 - Galvenajam dzelzceļa līnijas novietojuma variantam sagatavots detalizēts projekta izmaksu – ieguvumu analīzes aprēķinu modelis un veikta pilna izmaksu – ieguvumu analīze, tajā skaitā aprēķināts nepieciešamais ES finanšu instrumentu līdzfinansējums, sadalot projektu tehniski un ekonomiski nodalāmos realizācijas posmos pa atsevišķiem periodiem: no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada; Sagatavots detalizēts projekta vadības un projekta īstenošanas plāns, tajā skaitā darbu, laika un naudas plūsmas grafiks;
 - Projekts strukturēts atsevišķos tehniski un ekonomiski nodalāmos būvprojektos, kurus var īstenot iespēju robežās autonomi, tādējādi nodrošinot loģisku būvniecības posmu secību projekta ietvaros, t.sk. noteikti būvobjekti, ar kuriem sākt būvdarbus, sadalot laika periodos no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada.
7. Projektam paredzēts piesaistīt Eiropas Savienības finansējumu, t.sk. no „Savienojot Eiropu” finanšu instrumenta (*Connecting Europe Facility, CEF*).
8. Pakalpojuma izpildē jāievēro Rail Baltica starptautiskās koordinācijas darba grupas (*Rail Baltica Task Force*) izstrādātie un apstiprinātie detalizētās tehniskās izpētes kopējie principi („The Common Principles for the Rail Baltica 1435 mm Railway Spatial and Territorial Planning and Preliminary Design Study (Jointly agreed version by Estonia, Latvia, and Lithuania)”). Pakalpojuma izpildītājam jāņem vērā, ka detalizētās tehniskās izpētes un ietekmes uz vidi novērtējuma pakalpojuma izpildes laikā būs pienācīgā veidā un apmērā jāsadarbojas ar līdzīgu pakalpojumu veicējiem Igaunijā un Lietuvā, kā arī ar Rail Baltica Speciālo koordinācijas darba grupu un citām projekta attīstībā iesaistītajām institūcijām.
9. Izpildītājam jāveic visas darbības, kas ir viņa kompetencē, un jānodrošina Pasūtītājs ar materiāliem un informāciju, lai Pasūtītājs var veikt savā kompetencē esošās procedūras, tajā skaitā pieņemt nepieciešamos lēmumus detalizētās tehniskās izpētes un ietekmes uz vidi novērtējuma laikā.

¹ - Ņemot vērā, ka šobrīd Latvijā tiek izstrādāts jauns Būvniecības likums, tad izpētes rezultāts ir (1) detalizēti tehniskie risinājumi tādā detalizācijas pakāpē, lai būtu iespējams saņemt plānošanas un arhitektūras uzdevumu atbilstoši šā brīža Būvniecības likuma un saistošo normatīvo aktu prasībām vai (2) detalizēti tehniskie risinājumi - būvprojekts minimālā sastāvā, lai būtu iespējams saņemt būvatļauju atbilstoši Būvniecības likumam un saistošo normatīvo aktu prasībām to nākotnes redakcijā.

2. SAĪSINĀJUMU UN TERMINU SKAIDROJUMS

10. **Iepriekšējā izpēte** – priekšizpēte „Tehniski ekonomiskais pamatojums par Eiropas standarta platuma dzelzceļa līniju Igaunijā, Latvijā un Lietuvā (Rail Baltica koridors)”. Priekšizpētes nosaukums angļu valodā: "Feasibility study and technical studies of new European gauge line of Rail Baltica section Kaunas-Riga-Tallinn". Priekšizpēti pēc trīs valstu – Igaunijas, Latvijas un Lietuvas pasūtījuma veica AECOM Ltd.
11. **Pamatvariants** – iepriekšējās izpētes rekomendētais dzelzceļa līnijas trases novietojuma variants (t.s. red line), kas ir detalizēti pētāms trases novietojuma pamatvariants
12. **Visi dzelzceļa līnijas trases novietojuma varianti** – detalizētās tehniskās izpētes sākumposmā izskatāmie dzelzceļa līnijas trases novietojuma varianti, uz kuru pamata tiek identificēti iespējamie dzelzceļa līnijas trases novietojuma varianti. Tekstā lietots arī saīsinājums – **visi varianti**
13. **Iespējamie dzelzceļa līnijas trases novietojuma varianti** – no dažādiem aspektiem iespējami trīs vai vairāki dzelzceļa līnijas trases novietojuma varianti papildus pamatvariantam, un kuri tiek padziļināti analizēti un izpētīti, un iesniegti Pasūtītājam apstiprināšanai detalizētai tehniskai izpētei un ietekmes uz vidi novērtējumam. Tekstā lietots arī saīsinājums – **iespējamie varianti**.
14. **Apstiprinātie iespējamie dzelzceļa līnijas trases novietojuma varianti** - iespējamie dzelzceļa līnijas trases novietojuma varianti, kurus Pasūtītājs apstiprinājis detalizētajai tehniskajai izpētei un ietekmes uz vidi novērtējumam (vismaz divi pietiekami atšķirīgi varianti). Tekstā lietots arī saīsinājums – **apstiprinātie varianti**.
15. **Galvenais dzelzceļa līnijas trases novietojuma variants** – no visiem (tehniskajiem, tehnoloģiskajiem, vides, juridiskajiem, izmaksu un ieguvumu, u.c.) aspektiem izvēlētais jaunbūvējamās dzelzceļa līnijas novietojuma variants, kas saņēmis pozitīvu ietekmes uz vidi novērtējumu un Pasūtītāja apstiprinājumu. Tekstā lietots arī saīsinājums – **galvenais variants**.
16. **Pamatlīnija** – dzelzceļa līnijas posmi (iecirķņi), kas nodrošina pamatfunkcionalitāti.
17. **Savienojumi ar Lidostu un Rīgas brīvostu** – dzelzceļa līnijas iecirķņi, kas nodrošina pamatlīnijas savienojumu ar Starptautisko lidostu „Rīga” un Rīgas brīvostas teritorijām.
18. **Projekts** – Jaunas Eiropas standarta platuma dzelzceļa līnijas Rail Baltica būvniecība (Latvijas posms).
19. **IIA** – izmaksu – ieguvumu analīze atbilstoši Guide to CBA, 2008 un Latvijā spēkā esošo normatīvo aktu prasībām.
20. **SITS** - savstarpējās izmantojamības tehniskās specifikācijas (angļu val. – **Technical Specifications for Interoperability**).

(ar 2013.gada 8.aprīļa grozījumiem)

3. VEICAMIE UZDEVUMI

21. Detalizētās tehniskās izpētes ietvaros jāapskata visi plānotās jaunās dzelzceļa līnijas tehniskie, tehnoloģiskie, finansiālie, sociālekonomiskie, juridiskie un vides aspekti atbilstoši izpētes mērķim.
22. Veicamie uzdevumi strukturēti desmit darba pakās. Uzdevumi ir savstarpēji saistīti, un izpildītājam pakalpojuma izpildes laikā jāpiemēro tādas darba metodes un darbu organizācija, lai tiktu sasniegti izpētes mērķi un rezultāti noteiktajos termiņos un atbilstošā kvalitātē.
23. Izpildītājam jānodrošina, ka izpētes rezultāts pilnībā atbilst Latvijas Republikā spēkā esošo normatīvo aktu prasībām, t.sk. tehniskajām un būvprojektēšanas normām un standartiem. Izpildītājam jāparedz atbilstoši pasākumi, lai nodrošinātu izpētes dokumentu atbilstību normatīvo aktu prasībām Noslēguma ziņojuma iesniegšanas brīdī, tajā skaitā ņemot vērā normatīvo aktu izmaiņas pakalpojuma izpildes laikā.

1. UZDEVUMS - Iespējamo trases novietojumu variantu izpēte dzelzceļa līnijas ievadiem Rīgā

24. Veikt visu dzelzceļa līnijas trases novietojuma variantu izpēti dzelzceļa līnijas Pamatvarianta savienojumam ar Rīgas pilsētas centru, Starptautisko lidostu „Rīga” un Rīgas brīvdostas teritorijām Daugavas kreisajā un labajā krastā, un sagatavot priekšlikumus no tehniskajiem, vides, ekonomiskajiem un juridiskajiem aspektiem iespējamajiem variantiem, tajā skaitā, ņemot vērā iepriekšējās izpētes definēto iespējamo trases novietojuma koridoru, kurš uzskatāms par turpmāk detalizēti pētāmu dzelzceļa līnijas trases novietojuma Pamatvariantu (koridoru).
25. Veikt visu variantu izmaksu – ieguvumu analīzi, sniegtot detalizētu salīdzinājumu ar dzelzceļa līnijas trases novietojuma Pamatvariantu (koridoru). Salīdzinājumam jāsniedz detalizēts priekšstats par šo variantu ietekmi uz dzelzceļa līnijas finanšu un ekonomiskajiem rādītājiem salīdzinājumā ar Pamatvariantu. Izmaksu – ieguvumu analīze veicama tā, lai ar tās palīdzību būtu iespējams pamatot variantu izvēli, t.i. iespējamo variantu identificēšanai, kā arī sniegt pietiekamu informatīvo bāzi Pasūtītājam, lai būtu iespējams pieņemt pamatotu lēmumu, kuru no iespējamajiem variantiem apstiprināt turpmākajai detalizētai tehniskajai izpētei un ietekmes uz vidi novērtējuma veikšanai.
(ar 2013.gada 8.aprīļa grozījumiem)
26. Sagatavot tehniskos risinājumus noteiktajā mērogā, attēlot iespējamās dzelzceļa līnijas trases novietojuma variantus, sagatavojot situācijas plānus, kas izstrādāti uz topogrāfiskā plāna pamata un sniedz precīzu priekšstatu par būves novietojumu un būves plānojumu.
27. Veikt vides aspektu analīzi, nosakot būtiskākos vides faktorus, kas var ietekmēt variantu izvēli un turpmāko projekta attīstību.
28. Veikt visu iespējamo dzelzceļa līnijas trases novietojuma variantu ietekmes izvērtējumu uz esošo un perspektīvo Daugavas šķērsojumu², nosakot caurlaides un caurvedes spēju un dzelzceļa stacijas Rīga - Pasažieru caurlaides spēju.
29. Pēc iespējamo dzelzceļa līnijas trases novietojuma variantu izvērtēšanas un Pasūtītāja apstiprinājuma saņemšanas, vismaz diviem apstiprinātajiem dzelzceļa līnijas trases

² Piemēram, bet ne tikai, izvērtējot Daugavas šķērsojuma variantus Rīgas centrā pa esošo dzelzceļa tiltu, kombinējot 1520mm un 1435mm platuma sliežu ceļus vai izbūvējot vēl vienu jaunu tiltu, ņemot vērā kravu plūsmas uz Rīgas brīvdostu Daugavas kreisajā krastā cauri Rīgas centram vai pa citu maršrutu nešķērsojot Rīgas centru, kā arī ņemot vērā Starptautiskās lidostas „Rīga” dzelzceļa savienojuma pasažieru pārvadājumus pa 1520mm vai 1435mm dzelzceļa līniju. Izskatīt arī iespējamās tuneļa risinājumus.

novietojuma variantiem veikt detalizētu tehnisko izpēti un ietekmes uz vidi novērtējumu atbilstoši šīs Tehniskās specifikācijas uzdevumu Nr.2 - Nr.10 prasībām.

30. Izpildītājam darba gaitā jāizskata Visi dzelzceļa līnijas trases novietojuma varianti, t.sk. Pasūtītāja uzskaitītie varianti. Dzelzceļa līnijas trases novietojuma variantiem jāizskata arī apakšvarianti, ja tādi ir. Pasūtītāja sniegtais variantu uzskaitījums ir uzskatāms par indikatīvu. Izpildītājam jāizanalizē un jāpiedāvā pēc iespējas vairāki sociālekonomiski un tehniski racionālākie novietojuma varianti. Kopumā izpildītājam būtu sākotnēji jāizanalizē un jāpiedāvā vismaz astoņi ekonomiski un tehniski racionālākie novietojuma varianti, neskaitot šo variantu kombinācijas.
31. Pasūtītāja identificētie varianti dzelzceļa līnijas savienojumam ar Rīgas pilsētas centru, Starptautisko lidostu „Rīga” un Rīgas brīvdostas teritorijām Daugavas kreisajā un labajā krastā ir šādi:
 - a) Savienojums ar Rīgas pilsētas centru (stacija Rīga – pasažieru) pa dzelzceļa līnijas trases novietojuma Pamatvariantu (ievads Rīgā Z3/D3) un Rīgas pilsētas centra savienojums ar Starptautisko lidostu „Rīga” pa 1520 mm standarta dzelzceļa līniju (attēls):



b) Savienojums ar Rīgas pilsētas centru (stacija Rīga – pasažieru) pa dzelzceļa līnijas trases novietojuma Pamatvariantu vai citiem variantiem (ievads Rīgā pa Z1, Z2 vai Z3/D3, izvads no Rīgas pa Z3/D3 vai D1) un Rīgas pilsētas centra savienojums ar Starptautisko lidostu „Rīga” pa jaunbūvējamu 1435 mm standarta dzelzceļa līniju, un savienojums ar Rīgas brīvdabas teritorijām Daugavas labajā krastā pa Pamatvariantu Z3/D3 vai citiem variantiem (ievads Rīgā pa Z1 vai Z2 un izvads pa Z2 vai D1) un turpinājumā pa L, kā arī savienojums ar Rīgas brīvdabas teritorijām Daugavas kreisajā krastā pa D1 un turpinājumā pa K (attēls)³:

³ Attēlā ar svītrojumu atzīmētas tās teritorijas, kurās attēlotie identificētie dzelzceļa līnijas trases novietojuma varianti ir teorētiski, jo līdz šim veiktās Pasūtītājam zināmās izpētes nesniedz pietiekamu informāciju novietojuma varianta vispārīgai identificēšanai.



32. Trašu variantiem jāizstrādā tipveida tehniskie risinājumi, dzelzceļa līnijas novietojums attēlojams mērogā 1:10000, katram no identificētajiem variantiem jāapskata galveno ceļu varianti, staciju izvietojums, un to vispārīgs plānojums mērogā 1:10000.
33. Katram no identificētajiem variantiem jāveic būvizmaksu aplēse pietiekamā detalizācijas pakāpē, lai būtu iespējams salīdzināt katra varianta izmaksas un to struktūru.
34. Katram no identificētajiem variantiem jāveic daudzkritēriju analīze, ņemot vērā visus aspektus, un kvantificējot rādītājus. Izpildītājam jāpiedāvā turpmākajai izpētei vismaz vairāki pietiekami atšķirīgi iespējamie dzelzceļa līnijas trases novietojuma varianti, kuriem jāveic

izmaksu – ieguvumu analīze, nosakot papildus izmaksas, ieņēmumus, sociālekonomiskos ieguvumus un zaudējumus salīdzinājumā ar dzelzceļa līnijas trases novietojuma Pamatvariantu saskaņā ar iepriekšējās izpētes rezultātiem. Identificētie varianti jāaplūko pēc vismaz šādas kritēriju kopas: būvniecības un ekspluatācijas izmaksas, tehniskie risinājumi, savietojamība, kustības organizācija, teritorijas plānošanas un vides aspekti.

2. UZDEVUMS - Detalizēti izpētīt tehniskos un telpiskos priekšnosacījumus un sagatavot priekšlikumus par dzelzceļa līnijas novietojumu

35. Veikt tehnisko risinājumu apstiprinātajiem variantiem un detalizēto tehnisko risinājumu galvenajam variantam pamatošanai nepieciešamās inženierizpētes, t.sk. dzelzceļa līnijas novietojuma ģeotehniskā un hidroloģiskā izpēte, t.sk. veicot nepieciešamos urbumus un instrumentālos mērījumus pietiekamā apjomā, t.i. atbilstoši atbildīgo institūciju izsniegtajai ietekmes uz vidi novērtēšanas programmai, dzelzceļa līnijas un saistīto autoceļu, t.sk. mākslīgo būvju būvprojektēšanas vajadzībām, kā arī nepieciešamo saistīto ēku būvprojektēšanas vajadzībām. Inženierizpētes apjoms nosakāms atbilstoši spēkā esošajiem normatīvajiem aktiem un atbilstoši šī iepirkuma mērķim. Inženierizpētes rezultāti iesniedzami elektroniskā rediģējamā formātā Pasūtītājam apstiprināšanai.
36. Veikt spēkā esošo un izstrādes stadijā esošo vietējo pašvaldību un augstāka līmeņa teritorijas attīstības plānošanas dokumentu detalizētu analīzi, ieskaitot apstiprinātos un izstrādes stadijā esošos detālplānojumus un lokālplānojumus, un apkopojot informāciju par šo pašvaldību izsniegtajiem arhitektūras un plānošanas uzdevumiem dažādu projektēšanas un būvniecības darbu veikšanai dzelzceļa līnijas trases novietojuma ietekmes zonā, bet neierobežojot analīzi ar tiem.
37. Izvērtēt visu līmeņu teritorijas attīstības plānošanas dokumentos paredzētos vai īstenošanā esošos investīciju projektus, kuri ietekmē, vai kurus ietekmē Rail Baltica dzelzceļa līnijas būvniecība, novērtējot ietekmi uz Rail Baltica projekta īstenošanu.
38. Galvenajam variantam, pirms detalizēto tehnisko risinājumu izstrādes, veikt topogrāfisko uzmērīšanu mērogā ne lielākā kā 1:500 (apdzīvotās vietās) un ne lielākā kā 1:1000 (ārpus apdzīvotām vietām). Vietās, kur nepieciešama detalizācija, uzmērīšana jāveic mērogā 1:250. Pielaujams izmantot esošos topogrāfiskos uzmērījumus tajās teritorijās, kur šie uzmērījumi ir veikti ne senāk kā pirms 24 mēnešiem pirms izpētes uzsākšanas dienas, ja nav notikušas izmaiņas virszemes situācijā un komunikāciju novietojumā.
39. Ģeodēziskie un topogrāfiskie darbi jāveic Latvijas ģeodēzisko koordinātu sistēmā (LKS-92) un Baltijas 1977. gada augstumu sistēmā.
40. Apzināt atsavināmo zemju lietošanas mērķus un sagatavot nekustamo īpašumu īpašnieku sarakstu (jāiesniedz elektroniskā rediģējamā formātā) plānotās dzelzceļa līnijas Rail Baltica trases izbūves robežās, nosakot atsavināmo zemju lietošanas mērķus un plānoto (atļauto) izmantošanu atbilstoši spēkā esošajiem teritorijas attīstības plānošanas dokumentiem, atsavināmo zemju 1 m² cenas zemēm pa lietošanas mērķu grupām, atpērkamās platības pa lietošanas mērķiem, faktorus, kuri var apgrūtināt zemju iepirkšanu (piemēram, nepieciešams nojaukt būves, nekustamie īpašumi iekļāti u.tml.).
41. Analizēt esošās transporta infrastruktūras tīklu (gan valsts autoceļi, gan vietējie ceļi, gan esošais dzelzceļš) un perspektīvās dzelzceļa līnijas savstarpējo ietekmi un sagatavot konkrētus tehniskos risinājumus satiksmes organizēšanai pēc Rail Baltica dzelzceļa līnijas izbūves (nepieciešamie dzelzceļu un autoceļu šķērsojumi, to tehniskais risinājums utt.).
42. Izstrādāt un iesniegt Pasūtītājam rediģējumu kartogrāfisko materiālu M 1:1000 elektroniskā formātā vektordatu formā (*.pdf un vektordatu *.dgn, *.dxf, *.dwg vai *.shp formātā) Latvijas ģeodēzisko koordinātu sistēmā LKS-92, kurā attēlots trases novietojums un apdzīvotās vietas, transporta un komunikāciju tīkli, kravu un pasažieru pārvadājumu maršrutu tīkli.

43. Ņemot vērā telpisko u.c. priekšnosacījumu analīzes rezultātus, administratīvajās teritorijās (pašvaldībās), tur, kur nepieciešams veikt grozījumus pašvaldību teritorijas plānojumos, atbilstoši normatīvajos aktos un pašvaldības izsniegtajā darba uzdevumā noteiktajam, izstrādāt jaunās dzelzceļa līnijas lokālpārplānojumu (-us) un veikt lokālpārplānojuma (-u) stratēģiskais ietekmes uz vidi novērtējumu, ja tāds nepieciešams.

3. UZDEVUMS – Noteikt dzelzceļa līnijas tehniskos parametrus

44. Precizēt paredzamo dzelzceļa līnijas darbības koncepciju un iepriekšējās izpētes noteiktos dzelzceļa līnijas tehniskos parametrus ja tas ir lietderīgi (tajā skaitā, ņemot vērā EK vadlīniju priekšlikumu TEN-T tīklam). Saskaņot precizēto koncepciju un līnijas tehniskos parametrus ar Pasūtītāju.
45. Ja nepieciešams, papildināt iepriekšējās izpētes kravu un pasažieru plūsmas prognozes, ņemot vērā papildu plūsmu ietekmi, ko veido reģionālā / piepilsētas pasažieru satiksme un pasažieru un kravu plūsmas uz Starptautisko lidostu „Rīga” un Rīgas brīvostu.
46. Modelēt dzelzceļa satiksmi ar mērķi noteikt vilcienu apmaiņas punktu atrašanās vietas, kur jāparedz atbilstošas infrastruktūras izbūve kombinētajai kravu un pasažieru satiksmei, detalizējot atbilstoši izpētes mērķim un veicot, ja nepieciešams, pamatotas korekcijas salīdzinājumā ar priekšizpētes rezultātiem. Kustības modelēšanā ņemt vērā arī reģionālās / piepilsētas pasažieru satiksmes ietekmi un pasažieru un kravu plūsmas uz Starptautisko lidostu „Rīga” un Rīgas brīvostu.

4. UZDEVUMS - Sagatavot dzelzceļa līnijas trases novietojuma priekšlikumus

47. Veikt iespējamo dzelzceļa līnijas trases novietojuma variantu izpēti, ņemot vērā Pamatvariantu un šīs izpētes mērķi, t.sk. sasaisti ar 1520 mm dzelzceļa tīklu. Izpētes rezultātā jā sagatavo, ciktāl nepieciešams, atšķirīgi iespējamie trases novietojuma varianti.
48. Pēc iespējamo dzelzceļa līnijas trases novietojuma variantu izpētes, iesniegt Pasūtītājam apstiprināt un izvērtēt apstiprināto variantu, t.sk. veikt ietekmes uz vidi novērtējumu un pieņemt lēmumu par galveno trases novietojuma variantu, sagatavot detalizētus tehniskos risinājumus galvenajam dzelzceļa līnijas trases novietojuma variantam.
49. Apstiprinātajiem variantiem un vēlākā izpētes posmā galvenajam variantam jā sagatavo situācijas plāns, kas izstrādāts uz topogrāfiskā plāna pamata un sniedz precīzu priekšstatu par būves novietojumu un būves plānojumu.
50. Veicot izpēti un precizējot dzelzceļa līnijas trases novietojumu, pēc iespējas jā ņem vērā pašvaldību teritorijas attīstības plānošanas dokumentus un jāizvērtē variantus, kas pēc iespējas mazāk sadala zemes vienības.
51. Jāapzina visus autoceļus: valsts autoceļus (galvenie, reģionālie, vietējie), pašvaldību ceļi, komersantu un māju ceļus, kurus šķērsos perspektīvā „Rail Baltica” trase. Izpētē izmantot VAS „Latvijas Valsts ceļi” (turpmāk – LVC) satiksmes intensitātes datus par valsts autoceļiem tajos posmos, kurus šķērsos perspektīvā „Rail Baltica” trase.
52. Jāiegūst un jāizmanto LVC (par valsts autoceļiem), pašvaldību (par pašvaldību, komersantu un māju ceļiem), un mežu ceļu valdītājiem (mežu ceļi un pašvaldību un valsts autoceļi, kas nodrošina piekļuvi meža ceļiem) informāciju, tajā skaitā projektus par minēto autoceļu plānoto attīstību un plānotajiem autoceļu risinājumiem jaunā vietā plānotajā dzelzceļa līnijas trases zonā.
53. Noteikt dzelzceļa līnijas parametrus un trasējumu savienojumam ar Starptautisko lidostu „Rīga” (turpmāk – Lidosta), izstrādājot:
- a. dzelzceļa līnijas trasējuma variantus ievērojot Lidostas attīstības plānošanas dokumentos (attīstības plāns un detālpārplānojums) paredzētos transporta

infrastruktūras attīstības risinājumus Lidostas teritorijā; iepriekš izstrādāto pētījumu rezultātus par dzelzceļa ievada izbūvi Lidostas teritorijā; dzelzceļa līnijas trasējuma integrāciju lidostas esošajā infrastruktūrā;

- b. dzelzceļa pārvadājumu pieprasījuma prognozes ievērojot kravas aviācijas attīstības un Lidostas apgādes iespējas, izmantojot, kur tas ir lietderīgi, Lidostas sniegto informāciju un datus, un attīstības plānošanas dokumentos un Lidostas biznesa plānā noteiktos mērķus un biznesa stratēģiju;
- c. dzelzceļa līnijas ievada koncepciju, izvērtējot dzelzceļa līnijas biznesa modeli kā pasažieru vai kravas – pasažieru līnijai,
- d. dzelzceļa stacijas (vai staciju) izbūves variantus, ņemot vērā lidostas termināļa paplašināšanas kārtas un ilgtermiņa attīstības plānus un citas infrastruktūras attīstības perspektīvas;
- e. ekonomiskos, finansiālos un juridiskos aspektus un riskus, kā arī optimālāko risinājumu dzelzceļa ievada izbūvei lidostas teritorijā.

5. UZDEVUMS - Sagatavot tehniskos risinājumus

54. Sagatavot tehniskos risinājumus ietekmes uz vidi novērtējuma vajadzībām, t.sk. tipveida risinājumus līnijas šķērsprofilam, elektrifikācijai, signalizācijas, centralizācijas, bloķēšanas (turpmāk – SCB) un sakaru sistēmām, pieturvietām, stacijām, inženierbūvēm – autoceļu šķērsojumiem, upju šķērsojumiem un caurtekām, gājēju un dzīvnieku pārejām, ainavas dizainam, skaņas slāpēšanas pasākumiem, drošības barjerām, nožogojumiem. Risinājumi jā sagatavo atbilstoši SITS prasībām dzelzceļa līnijas kategorijai P2/F1, turpmākās attīstības nolūkā paredzot dzelzceļa līnijas trases ģeometriskos parametrus atbilstoši kategorijai P1. Tehniskie risinājumi izstrādājami mērogā 1:1000 vai augstākā detalizācijas pakāpē katram no dzelzceļa līnijas novietojuma vai tehnoloģiskajiem variantiem. Tehniskajiem risinājumiem jāaptver visi principiālie dzelzceļa līnijas un saistīto būvju risinājumi, un jānodrošina detalizētu paredzamo ietekmju kvantifikācija un novērtēšana, kā arī jāsniedz lēmumu pieņēmējiem, ieinteresētajām pusēm un sabiedrībai precīzs priekšstats par būves novietojumu un principiālajiem tehniskajiem risinājumiem, kā arī paredzamo darbību būves ekspluatācijas periodā. Tehniskajiem risinājumiem jānodrošina viennozīmīgs priekšstats par dzelzceļa līnijas un saistītās infrastruktūras jaunveidojamo nodalījuma joslu, un jāietver principiāls būves dalījums ģeogrāfiskajās un tehniskajās kārtās, kā arī jānodrošina atbilstība normatīvajos aktos noteiktajām būtiskām būvei izvirzāmām prasībām.

(ar 2013.gada 8.aprīļa grozījumiem)

55. Veikt visus tehnisko risinājumu un detalizēto tehnisko risinājumu izstrādei nepieciešamos inženierizpētes darbus.

(ar 2013.gada 8.aprīļa grozījumiem)

56. Sagatavot detalizētus tehniskos risinājumus galvenajai dzelzceļa līnijas trasei un iespējamajām alternatīvām mērogā 1:500 apdzīvotās teritorijās un mērogā 1:1000 ārpus apdzīvotām teritorijām ~~skūču projektam atbilstošā detalizācijas pakāpē un formā.~~ Detalizētajiem tehniskajiem risinājumiem jāaptver pilnai dzelzceļa līnijas funkcionalitātei nepieciešamās dzelzceļa, autoceļu, energapgādes, ēku konstrukciju, u.c. daļas, , kā arī jānodrošina atbilstība normatīvajos aktos noteiktajām būtiskām būvei izvirzāmām prasībām. Detalizētajiem tehniskajiem risinājumiem jāietver precīzs un viennozīmīgs būves dalījums ģeogrāfiskajās un tehniskajās kārtās (būvprojektos), un jānodrošina viennozīmīgs priekšstats par dzelzceļa līnijas un saistītās infrastruktūras jaunveidojamo nodalījuma joslu.

(ar 2013.gada 8.aprīļa grozījumiem)

57. Izstrādāt nepieciešamos autoceļu šķērsojumu shematiskos risinājumus saskaņā ar prasībām vairāklīmeņu krustojumu izbūvei, lai nodrošinātu drošu un ērtu dzelzceļa līnijas trases šķērsošanu. Risinājumiem jānodrošina privātpašniekiem piekļuvi saviem īpašumiem abpus plānotajai dzelzceļa līnijas trasei un jāietver priekšlikumi vietējai satiksmei paredzēta ceļu tīkla izveidei atbilstoši situācijai. Risinājumi izstrādājami konsultējoties ar ceļu infrastruktūras pārvaldītājiem un vietējām pašvaldībām.

58. Projektēt piedāvātajiem autoceļu šķērsojumiem plānus un garenprofilus līdz tādai detalizācijas pakāpei, kas nodrošina izejas datus mākslīgo būvju projektēšanai un aptuvenu darba daudzumu aprēķināšanai.
59. Sagatavot tehniskos risinājumus staciju un citu sadales punktu, pieturas punktu, ritošā sastāva un infrastruktūras apkalpošanai nepieciešamajai infrastruktūrai.
60. Aprēķināt dzelzceļa līnijai nepieciešamo vilces apakšstaciju novietojumu un sagatavot tehniskos risinājumus apakšstaciju novietojumam un to energoapgādei, tajā skaitā ņemot vērā VAS „Latvijas dzelzceļš” dzelzceļa līniju elektrifikācijas plānus, kā arī AS “Augstsprieguma tīkls” un AS „Latvijas elektriskie tīkli” attīstības plānus.
61. Aprēķināt būvizmaksas, sadalījumā pa darbu veidiem, katram dzelzceļa līnijas posmam, tai skaitā visiem nepieciešamajiem papildu risinājumiem (autoceļu šķērsojumi, vietējie ceļi, trokšņu aizsargsienas, dzīvnieku aizsargsētas un pārejas u.c.).
62. Sagatavot detalizētu pārskatu par atsavinājamajiem nekustamajiem īpašumiem.
63. Izveidot nekustamā īpašuma lietotāju / īpašnieku sarakstu, iegūstot rakstiskus konceptuālus saskaņojumus no zemes īpašniekiem par iespējamo būvniecību, t.i. rakstisku dokumentu, kas apliecina zemes īpašnieka piekrišanu iespējamajai būvniecībai (gan īpašuma izmantošanu būvniecības vajadzībām, gan īpašuma atsavināšanu būvniecības vajadzībām). Pasūtītājs paredz pilnvarot Izpildītāju rīkoties tā vārdā, saņemot no privāto zemju īpašniekiem saskaņojumus. Konceptuālie saskaņojumi saņemami arī no apkārtējo zemju īpašniekiem, kuru īpašumu ietekmēs jaunizbūvētais dzelzceļš, ievērojot normatīvajos aktos par ietekmes uz vidi novērtējumu noteikto. Ja zemes īpašnieks nepiekrīt sniegt konceptuālo saskaņojumu, kā arī gadījumos, kad zemes īpašnieks nav sasniedzams, Izpildītājam argumentēti jāpamato objektīvie iemesli, kuru dēļ nav iespējams saņemt zemes īpašnieka piekrišanu.
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64. Jāsniedz detalizētas rekomendācijas nekustamā īpašuma atsavināšanai un nepieciešamajām darbībām teritorijas plānojumu un citu attīstības plānošanas dokumentu grozījumiem vai izstrādei atbilstoši izpētes nobeigumā LR spēkā esošajiem normatīvajiem aktiem.
65. Aprēķināt aptuvenās 1 m² cenas zemēm pa lietošanas mērķu grupām (lauksaimniecība, vienas un divģimeņu māju apbūve, daudzdzīvokļu māju apbūve, sabiedrisko un darījumu ēku apbūve, mežsaimniecība u.c.)
66. Jāapkopo informāciju, kas nepieciešama jaunu inženierkomunikāciju izbūvei un esošo inženierkomunikāciju rekonstrukcijai vai pārbūvei, saņemot konceptuālu piekrišanu un izvirzītās prasības pārbūvei vai pārcelšanai no inženierkomunikāciju īpašnieka.
67. Jāsagatavo tehniskie risinājumi dzelzceļa daļai, ietverot:
- a. sliežu ceļu plānu ar ēku un būvju izvietojumu un projektējamās līnijas trasi, garenprofilus un raksturīgos šķēršņus, virsbūves konstrukciju;
 - b. signalizācijas pamatierīču izvietojumu;
 - c. vilces apakšstaciju un transformatoru izvietojumu (ēkām un būvēm - ēkas vai būves izvietojumu);
 - d. dzelzceļa inženierbūvju daļu: tiltus, pārvadus un caurtekas;
 - e. pasažieru apkalpošanai nepieciešamo infrastruktūru;
 - f. autoceļu un gājēju ceļu vairāklīmeņu šķērsojumus, dzīvnieku pārejas;
 - g. prettrokšņu žogus vai citus tehniskos risinājumus trokšņu un vibrāciju ietekmes samazināšanai;
 - h. dzelzceļa apkalpošanai nepieciešamās ēkas un būves un tehnoloģiskos autoceļus.
- Tehniskajiem risinājumiem funkcionāli jāaptver visi dzelzceļa kā transporta sistēmas elementi - dzelzceļa infrastruktūra, ritošā sastāva funkcionēšanai nepieciešamās būves, būves tehnoloģisko procesu nodrošināšanai gan dzelzceļa infrastruktūras uzturēšanai gan pārvadājumu nodrošināšanai (ritošā sastāva ekipēšana, tehniskās apkopes, remonts, u.c.).
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68. Jāveic būvizmaksu aprēķini.
69. Jāsagatavo detalizēts pārskats par nepieciešamo attīstību vai uzlabojumiem saistītajai (piemēram, elektroenerģijas augstsprieguma tīkli, autoceļu pievadi utml.) infrastruktūrai.
70. Sagatavot tehnisko risinājumu vizualizāciju – lai būtu redzams, kā pārvietojas ritošais sastāvs, kā uzņem pasažierus, kā tiek veikta kravu apstrādes būtiskākās tehnoloģiskās norises (pasažieru

vilciena pienākšana stacijā Rīga pasažieru, Starptautiskajā lidostā „Rīga”, pasažieru apmaiņa ar citiem vilcieniem vai citiem transporta veidiem, Daugavas šķērsojums, sarežģītu vairāklīmeņu transporta infrastruktūras mezglu šķērsošana, kravu apstrāde stacijā un intermodālajā terminālī, u.c.). Vizualizācija jā sagatavo grafiskās modelēšanas 3D skicu veidā, skicēm jābūt gan statiskām (foto), gan dinamiskām (video). Šādas vizualizācijas mērķis ir parādīt gan lēmumu pieņēmējiem un nozares pārstāvjiem, gan arī plašākai publikai (piemēram, demonstrējot pozitīvos un negatīvos ietekmes uz vidi aspektus ietekmes uz vidi novērtējuma ietvaros komunikācijā ar sabiedrību) kā praktiski izskatīsies jaunā dzelzceļa līnija. Statiskās un dinamiskās skices jāizmanto arī darba sanāksmēs ar Pasūtītāju, demonstrējot piedāvātos tehniskos risinājumus.

71. Sagatavojot tehniskos risinājumus savienojumam ar Lidostu, ņemt vērā;

- a. iespējamās Lidostas infrastruktūras pārbūves nepieciešamību saistībā ar Lidostas un dzelzceļa līnijas elektroapgādi, gruntsūdeņu novadīšanu, gaisa kuģu stāvvietām peronā un to novietojumu, autotransporta stāvvietām un citu infrastruktūras pārbūves nepieciešamību, ko tiešā veidā ietekmētu dzelzceļa līnijas ievada izbūve Lidostas teritorijā;
 - b. piedāvāt integrētus un saskaņotus risinājumus saistībā ar Lidostas 4.perona rekonstrukciju un pasažieru termināļa paplašināšanu, t.sk. autostāvvietas izbūvi;
 - c. objektus un teritorijas, kuras skar plānotais dzelzceļa līnijas ievads: 1) Baltijas Cargo centrs; 2) P3 stāvlaukums; 3) papildus jāņem vērā, ka ir nepieciešama 100m aizsargzona no perspektīvā degvielas uzglabāšanas termināļa; 4) precīzas trases iezīmēšanas gadījumā skarto objektu un teritoriju apjoms var tikt precizēts.
72. Sagatavot tehniskos risinājumus, ņemot vērā paredzamās darbības - Trešā lgaunijas – Latvijas elektropārvades tīkla starpsavienojuma – atbildīgā AS "Augstsprieguma tīkls" un realizētāja AS „Latvijas elektriskie tīkli” tehniskos risinājumus, t.sk. kopīga Rail Baltica dzelzceļa līnijas un Trešā lgaunijas – Latvijas elektropārvades tīkla starpsavienojuma infrastruktūras koridora izveidei. Saņemt principiālās prasības no paredzētās darbības atbildīgā un realizētāja.
73. Noskaidrot un apkopot Pasūtītāja un ieinteresēto pušu principiālās prasības attiecībā uz dzelzceļa līniju un saistīto infrastruktūru, regulāri visā tehnisko risinājumu izstrādes procesa laikā tās pilnveidot un aktualizēt, un saskaņot ar Pasūtītāju.

6. UZDEVUMS - Ietekmes uz vidi novērtējums

74. Veikt ietekmes uz vidi novērtējumu atbilstoši likumā „Par ietekmes uz vidi novērtējumu”, 2011. gada 25. janvāra Ministru kabineta noteikumos Nr. 83 „Kārtība, kādā novērtējama paredzētās darbības ietekme uz vidi” un 2011. gada 19. aprīļa Ministru kabineta noteikumos Nr.300 "Kārtība, kādā novērtējama ietekme uz Eiropas nozīmes īpaši aizsargājamo dabas teritoriju (*Natura 2000*)" noteiktajai kārtībai, kā arī ievērojot 25.02.1991. "Konvencija par ietekmes uz vidi novērtējumu pārrobežu kontekstā" un citus saistošos starptautiskos un nacionālos tiesību aktus, nodrošinot šādus procesa etapus:

- a. Konsultācijas Pasūtītājam - , lai sagatavot lerosinātāja pieteikumu iesniegumu (-us) un iesniegt Vides pārraudzības valsts birojā un Valsts vides dienestā, t.sk. bet ne tikai - sagatavot nepieciešamo iesniegumu un paskaidrojošo informāciju un dokumentu projektus.
(ar 2013.gada 8.aprīļa grozījumiem)
- b. Informēt sabiedrību un organizēt sākotnējo sabiedrisko apspriešanu, veicot vismaz vienu sabiedrisko apspriešanu katrā administratīvajā teritorijā, kuru skar Rail Baltica dzelzceļa līnija un katrā ietekmes uz vidi novērtējuma darba etapā.
- c. Veikt izpēti, alternatīvu salīdzināšanu un sagatavot ziņojumu un pilnveidot atbilstoši IVN programmai un saņemtajiem nosacījumiem.— un / vai IVN programmai. Veikt sabiedrības informēšanu, ziņojuma sabiedrisko apspriešanu un saņemt sabiedrības un institūciju ierosinājumus. Alternatīvas jāizstrādā atbilstoši prasībām, kas izvirzītas trases novietojuma variantiem un tehniskajiem risinājumiem, t.sk. to sastāvam, detalizācijai un mērogam. Jāparedz trases

novietojuma un, kur tas nepieciešams, tehnoloģiskās alternatīvas (piemēram, bet ne tikai, ūdenstilpņu šķērsojumiem, u.c.). Izpildītājam jānodrošina, ka IVN procesa laikā tiek detalizēti novērtētas un kvantificētas visas paredzamās īslaicīgās un ilglaicīgās ietekmes, un uzdevums jāveic atbilstoši izsniegtās IVN programmas noteikumiem un nosacījumiem

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d. Konsultācijas Pasūtītājam visā procesa laikā.

e. Sagatavot ziņojumu par ietekmes uz vidi novērtējumu aktuālo versiju pēc sabiedriskās apspriešanas un saņemto atzinumu un ierosinājumu rezultātiem, t.sk. pēc VPVB atzinumu saņemšanas.

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f. saņemt no kompetentās institūcijas atzinumu (-us) par ziņojumu par ietekmes uz vidi novērtējumu, atzinumu un ziņojumu iesniegt Pasūtītājam darbības akcepta iegūšanai normatīvajos aktos noteiktajā kārtībā un sniegt konsultācijas līdz darbības akcepta iegūšanai.

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75. Ietekmes uz vidi novērtējuma gaitā jāsniedz atbildes uz sabiedrību interesējošiem jautājumiem, rakstiski apkopojot uzdotos jautājumus un atbildes uz tiem.

76. Sagatavot sabiedriskās apspriešanas sanāksmēm rasējumus, kartogrāfiskos materiālus un 3D vizualizāciju, mērogu un principiālās prasības iepriekš saskaņojot ar Pasūtītāju. Sabiedriskās apspriešanas sanāksmēm sagatavotajos materiālos atspoguļot iespējami precīzu informāciju par atsavināmajām vai sadalāmajām zemēm, nojaucamajām būvēm, sniedzot šo informāciju gan kartogrāfiskajā materiālā, gan sarakstos. Rasējumos un kartogrāfiskajos materiālos attēlot iespējami uzskatāmākā veidā paredzamo Rail Baltica dzelzceļa līnijas ietekmi uz apkārtējām teritorijām, kā arī attēlojot visus svarīgākos būves principiālos risinājumus.

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77. Izpildītājam jānodrošina pēc iespējas aktīvāka sabiedrības iesaiste un līdzdalība.

78. Izstrādājot dzelzceļa līnijas trases novietojuma variantus un tehniskos risinājumus, vismaz vienā no variantiem, kur tas iespējams, paredzēt kopīga Rail Baltica dzelzceļa līnijas un Trešā Igaunijas – Latvijas elektropārvades tīkla starpsavienojuma infrastruktūras koridora izveidi. Saņemt principiālās prasības no paredzētās darbības - Trešā Igaunijas – Latvijas elektropārvades tīkla starpsavienojuma – atbildīgā AS "Augstsprieguma tīkls" un realizētāja AS „Latvijas elektriskie tīkli”. Sadarboties ar paredzētās darbības - Trešā Igaunijas – Latvijas elektropārvades tīkla starpsavienojuma – realizētāja AS „Latvijas elektriskie tīkli” ietekmes uz vidi novērtējuma ziņojuma un vēlākā etapā arī būvprojekta (tehniskā projekta) izstrādātāju, sniedzot nepieciešamo informāciju un datus, kā arī ņemot vērā izstrādāju sagatavotos paredzamās darbības tehniskos risinājumus, informāciju un datus. Veicot ietekmes uz vidi novērtējumu dzelzceļa līnijai, ņemt vērā, ka Trešā Igaunijas – Latvijas elektropārvades tīkla starpsavienojuma ietekmes uz vidi novērtējumu paredzēts pabeigt indikatīvi līdz 2014.gada beigām.

7. UZDEVUMS - Izmaksu – ieguvumu analīze un sociālekonomiskās ietekmes izvērtējums

79. Veikt pilnu projekta izmaksu – ieguvumu analīzi ar mērķi noteikt ārējā finansējuma – Connecting Europe Facility (CEF) un citu finanšu instrumentu – piesaistes iespējamību un apmēru, sadalot projektu tehniski un ekonomiski nodalāmos realizācijas posmos laika periodos no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada;

80. Veikt izmaksu – ieguvumu analīzi pēc papildizmaksu / papildu ieguvumu principiem Rīgai caurejošas dzelzceļa līnijas vai ar Rīgas pasažieru staciju savienojošas dzelzceļa līnijas izbūvei, tajā skaitā ņemot vērā esošās pasažieru plūsmas pa transporta veidiem un pēc dzelzceļa līnijas izbūves izmaiņas pasažieru plūsmās aviosatiksmē, dzelzceļā un

autotransportā starp Lidostu un Viļņu, Kauņu, Paņevēžu, Pērnavu un Tallinu (un citiem lielākajiem attīstības centriem), un vispārējo ietekmi uz Lidostas darbību.

81. Izmaksu – ieguvumu analīzi veic:

- o ņemot vērā spēkā esošos ES dokumentus un LR normatīvos aktus, kas nosaka izmaksu – ieguvumu analīzes veikšanas kārtību;
- o balstoties uz iepriekšējās izpētes ietvaros veiktās izmaksu – ieguvumu analīzes rezultātiem, detalizējot to;
- o nodrošinot izmaksu – ieguvumu analīzes salīdzināmību un izsekojamību attiecībā pret iepriekšējās izpētes ietvaros veiktās izmaksu – ieguvumu analīzes rezultātiem;
- o ņemot vērā pilnas projekta dzīves cikla izmaksas, ieņēmumus, zaudējumus un ieguvumus un piemērojot dzīves ciklu 30 gadi no dzelzceļa līnijas ekspluatācijas uzsākšanas pirmā pilnā gada
- o gan Pamatvariantam, gan pārējiem apstiprinātajiem variantiem detalizētai izpētei;
- o Izpildītāja izstrādātajiem un Pasūtītāja apstiprinātajiem tirgus un makroekonomiskās attīstības iespējamajiem scenārijiem (minimālais izstrādājamo scenāriju skaits – četri);
- o izstrādājot t.s. projekta attīstības do-minimum, do-optimum un do-maximum scenārijus, par do-optimum scenāriju pieņemt iepriekšējās izpētes rezultātu;
- o plānotās investīcijas strukturējot prioritārajā investīciju programmā un ilgtermiņa investīciju programmā. Prioritārajā investīciju programmā iekļaujami pasākumi, kas nodrošina pilnu dzelzceļa līnijas funkcionalitāti pēc būvniecības pabeigšanas. Ilgtermiņa investīciju programmā iekļaujami pasākumi, kas uzlabo dzelzceļa līnijas funkcionalitāti divdesmit gadu laikā pēc dzelzceļa līnijas ekspluatācijas uzsākšanas;

82. Projekta izmaksu – ieguvumu analīzei jāizstrādā elektronisks modelis *.xlsx formātā. Modelim jāaptver vismaz šāda funkcionalitāte:

- o Makroekonomiskie pieņēmumi;
- o Tirgus attīstības scenāriji;
- o Projekta ieņēmumu prognoze, ietverot detalizētu pieprasījuma prognozi, kas balstās uz ticamiem kravu un pasažieru plūsmas modelēšanas rezultātu datiem, **un kas sniedz detalizētu priekšstatu par katru jaunbūvējamās dzelzceļa līnijas pārvadājumu segmentu, un kuri izstrādāti kā iepriekšējās izpētes rezultātu papildinoša kravu un pasažieru plūsmas prognoze,**

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- o Finansējuma deficīta likmes un ES fondu ieguldījuma un pārējā publiskā līdzfinansējuma aprēķins;
- o Infrastruktūras pārvaldītāja finanšu pārskatu aprēķins (peļņas vai zaudējumu aprēķins, balance, naudas plūsmas pārskats);
- o Infrastruktūras pārvaldītāja finanšu rādītāju analīze;
- o Konsolidēto finanšu rādītāju analīze, ietverot kravas un pasažieru pārvadātājus izdalot atsevišķi pa dažādajiem pārvadājumu segmentiem (indikatīvi kravu pārvadātāji, starptautiskie pasažieru pārvadājumi, reģionālās satiksmes un lidostas savienojuma pasažieru pārvadājumi), t.sk. peļņas vai zaudējumu aprēķins, balance, naudas plūsmas pārskats;

- Projekta finanšu, sociālekonomiskā, risku un jutīguma analīze, ietverot attiecīgo rādītāju aprēķinu; jutīguma un risku analīze jāveic vismaz četriem nākotnes scenārijiem, scenārijiem jāaptver visi projektu ietekmējošie būtiskie faktori;
 - Infrastruktūras lietošanas maksas aprēķins;
 - Detalizēts pamatlīdzekļu nolietojuma aprēķins;
 - Infrastruktūras pārvaldītāja un projekta finansēšanas aprēķins, tajā skaitā projekta finansēšanas plāns;
 - Pievienotās vērtības nodokļa naudas plūsmas aprēķins;
 - Projekta īstenošanas (fiziskā progresā) laika grafiks, kas sasaistīts ar Projekta naudas plūsmu individuālā būvprojekta līmenī;
 - Modelis jāsagatavo, un jāveic lietotāju klātienē instruktaža un jānodod Pasūtītājam modeļa detalizēts apraksts tādā detalizācijas pakāpē, lai izstrādāto modeli Pasūtītājs var izmantot (modificēt, papildināt, u.tml.) turpmākajā Projekta sagatavošanas darbā patstāvīgi.
83. Izpildītāja izstrādātajai izmaksu – ieguvumu analīzei jāaptver vismaz šādi aspekti, ietverot tos izmaksu – ieguvumu analīzes modeli vai veicot modeli papildinošu aprēķinu:
- Zemes un nekustamā īpašuma atsavināšanas izmaksas, ņemot vērā atsavināšanas procesam nepieciešamo laiku;
 - Tieši saistītās (uz projektu attiecināmās) un netieši saistītās (dzelzceļa staciju un infrastruktūras pieejamības nodrošināšanai) investīciju un darbības izmaksas;
 - Netieši ar projektu saistītās reģionālas kravu pārvadājumu un pasažieru pārvadājumu infrastruktūras izveides papildizmaksas;
84. Papildus izmaksu ieguvumu analīzei veikt analītisku projekta sociālekonomiskās ietekmes novērtējumu, aptverot šādu jautājumu loku:
- Rail Baltica dzelzceļa līnijas ietekme uz transporta nozares cenām un ienākumiem, it īpaši ņemot vērā autopārvadājumus, tajā skaitā novērtējot Rail Baltica koridora ietekmi uz satiksmes intensitāti un kravu plūsmām pa autoceļiem, kas saistīti ar koridoru, un plānotajiem investīciju projektiem autoceļu jomā;
 - Iedzīvotāju mobilitātes un paradumu izmaiņas (tūrisms, darba braucieni, u.c.), un to ietekme uz citu pārvietošanās veidu ieņēmumiem un izmaksām, tajā skaitā šobrīd pastāvošo valsts budžeta un pašvaldību budžetu līdzfinansēto sabiedriskā transporta sistēmu;
 - Projekta uzlaboto pārvietošanās iespēju ietekme uz nekustamo īpašumu vērtību un īpašumtiesībām;
 - Ārvalstu tiešo investīciju apjoms, kas sagaidāms projekta realizācijas rezultātā, un līdz ar to projekta īstenošanas makroekonomiskā ietekme;
 - Projekta ietekme uz Starptautiskās lidostas „Rīga” un Rīgas brīvostas darbības rādītājiem;
 - Projekta ietekme uz kravu pārkraušanas apjomiem un pasažieru apgrozību Latvijas lielākajās ostās un pārvadājumiem uz / no šīm ostām;
 - Nodarbinātība - jaunradīto tiešo darba vietu skaits dzelzceļa koridora būvniecības, apsaimniekošanas un darbības periodā, jaunradīto darba vietu skaits saistītajās nozarēs (loģistika, pārvadātāji, izplatītāji u.c.), un jaunradīto darbavietu ekonomiskās ietekmes novērtējums.
85. Projekta sociālekonomiskās ietekmes novērtējuma ietvaros izvērst analīzi arī par jautājumiem, kas svarīgi sabiedrībai un Projekta mērķgrupām, izvēršot analīzi atbilstoši

sabiedriskajās apspriešanās vai konsultāciju procesa laikā ar ieinteresētajām pusēm uzdotajiem interešu grupu jautājumiem vai identificētajiem problēmjautājumiem. Projekta sociālekonomiskās ietekmes novērtējums veicams, pielietojot kvantitatīvas un kvalitatīvas novērtējuma metodes, tajā skaitā ekonometriskās metodes. Novērtējuma rezultāts sagatavojams analītiska ziņojuma un papildus sabiedrībai viegli uztverama ziņojuma formā. Sociālekonomiskās ietekmes novērtējumam jābūt kvantificētam un pamatotam ar konkrētiem rādītājiem, ņemot vērā to bāzes vērtību un sagaidāmo vērtību noteiktos projekta dzīves cikla posmos.

8. UZDEVUMS - Sagatavot turpmāko darba plānu

86. Izpildītājam uzdevuma ietvaros jāsagatavo rekomendācijas tālākai darbībai detalizēta turpmākā darba plāna formā. Darba plānā jāietver Projekta realizācija pa posmiem ar konkrētu laika grafiku katrai aktivitātei katrā būvniecības kārtā (iepirkumi, būvprojektēšana, būvprojekta ekspertīze, būvniecība, piegādes, citi pakalpojumi, starptautiskā koordinācija, u.c.), finansējuma, naudas plūsmas un izmaksu plānu (sadalījumā pa izmaksu veidiem un finansējuma avotiem), tajā skaitā sadalot Projektu tehniski un ekonomiski nodalāmos realizācijas posmos laika periodos no 2014.-2020. gadam, ievērojot n+2 principu, un no 2021.gada. Būvobjekta / būvobjektu dalījumam būves kārtās un to būvniecības secībai jāpamato ar sociālekonomisko pamatotību katrai kārtai, dalījumā paredzot arī ilgtermiņa kārtas (iekļaujot ilgtermiņa investīciju programmā) un to finansiāli un sociālekonomiski pamatoto būvniecības gadu.
87. Tālāko darbu analizē jāietver izvērtējums alternatīviem Projekta finansēšanas avotiem, papildus darba uzdevumā norādītajam Eiropas transporta savienojamības instrumentam (Connecting Europe Facility [CEF]), tajā skaitā izvērtējot projekta izvēlētajā risinājuma vai tā daļu finansēšanu publiskās-privātās partnerības (PPP) ietvaros, vai kombinētā jeb hibrīda PPP veidā, kā arī izvērtējot Eiropas Komisijas iniciatīvas par projekta obligāciju izmantošanu projekta finansēšanai. Izvērtējumā salīdzinošā formā jānorāda izmaksas katram no finansēšanas veidiem.
88. Darba plānā jāietver katra darbības soļa risku izvērtējums un ieteicamie pasākumi risku mazināšanai. Darba plānam jāaptver laika periods līdz dzelzceļa līnijas ekspluatācijas uzsākšanas pirmajam pilnajam gadam ieskaitot.
89. Izpildītājam jāsagatavo detalizēts iepirkumu plāns, ietverot tajā paredzamo līgumcenu, plānoto iepirkuma metodi un galvenos izvēles/vērtēšanas kritērijus, nepieciešamo laiku iepirkuma procedūras sagatavošanai, izsludināšanai un vērtēšanai, iepirkumu procedūru savstarpējo secību katram būvniecības etapam.
90. Izpildītājam jāidentificē starp projekta dalībvalstīm koordinējamie jautājumi un jāsniedz rekomendācijas šo jautājumu risināšanai.

9. UZDEVUMS - Turpmāko būvprojekta sagatavošanas soļu detalizēto tehnisko specifikāciju sagatavošana

91. Katram būvobjektam sagatavot tehniskās specifikācijas:
 - Būvprojektēšanai (skicē un tehniskā projekta izstrādei);
 - Būvprojekta ekspertīzei ;
 - Būvuzraudzībai;
 - Autoruzraudzībai.

10. UZDEVUMS - Konsultācijas ar ieinteresētajām pusēm (pašvaldībām, valsts institūcijām u.c. organizācijām) un komunikācija ar sabiedrību

92. Izpildītājam uzdevuma ietvaros jāpieprasa, jāsaņem un jāizvērtē visu personu, kuru intereses skar paredzētie pasākumi, prasības.
93. Izpildītājam darba plānā jāparedz pietiekams laiks iesniegto ziņojumu un nodevumu izvērtēšanai Pasūtītāja un citu iesaistīto pušu (piemēram, bet ne tikai, VAS „Latvijas Valsts ceļi” Tehniskās pārvaldes daļas (Ceļu tīkla, Tiltu, Stratēģijas), VAS „Latvijas Dzelzceļš”, u.c.) pārstāvjiem – ņemot vērā vismaz 30 dienu termiņu izskatīšanai un atzinuma sniegšanai.
94. Detalizētās tehniskās izpētes izstrādes gaitā Izpildītājam jāsadarbojas un jākonsultējas ar iesaistīto pašvaldību pārstāvjiem, tajā skaitā speciālistiem, kuri ir atbildīgi par teritorijas attīstības plānošanas dokumentu izstrādi, ieviešanu un uzraudzību, un lēmumu pieņēmējiem.
95. Izpildītājam sadarbībā ar Pasūtītāju saskaņojot atsevišķos darba soļus jāveic regulāra sabiedrības informēšana par Projekta izstrādes gaitu vai jāsniedz Pasūtītājam nepieciešamā informācija sabiedrības informēšanas nodrošināšanai.
96. Izpildītājam jāparedz un jāīsteno sabiedrības līdzdalības pasākumi, kas pārsniedz normatīvajos aktos noteiktās minimālās prasības, un kas nodrošina sabiedrības iesaisti pēc iespējas agrīnākā izpētes stadijā, tādējādi veicinot sabiedrības izpratni par Projektu un aktīvu tās līdzdalību.
97. Izpildītājam pēc Pasūtītāja pieprasījuma šīs izpētes ietvaros ir jā sagatavo informatīvie materiāli vai prezentācija (latviešu un/vai angļu valodā) gan atspoguļojot detalizētās tehniskās izpētes izstrādes galvenos secinājumus uz konkrēto brīdi, gan pārskatu par izpētes gaitu.
98. Pēc Pasūtītāja uzaicinājuma Izpildītājam jānodrošina dalība un, ja nepieciešams, jā sagatavo informatīvi materiāli vai darba ziņojumi, sanāsmēs, forumos, tikšanās u.c. Pasūtītāja rīkotos pasākumos vai pasākumos, kuros Pasūtītājam jā piedalās. Šādi pasākumi, piemēram, ir Rail Baltica Task Force sanāksmes, darba grupas, sanāksmes Eiropas Komisijā, sanāksmes ar ieinteresētajām pusēm Latvijā, Lietuvā vai Igaunijā, konferences, diskusijas, u.c.

4. ZIŅOJUMI UN ATSKAITES

99. Izpildītājam jāsniedz šādi ziņojumi rakstiskā formātā:

MĒNESIS ⁴	NODEVUMS	NODEVUMA SATURA MINIMĀLĀS PRASĪBAS
0	Līguma noslēgšana	
1	Uzsākšanas ziņojums	- Precizēts darba plāns un metodoloģija - Sabiedrības līdzdalības nodrošināšanas un komunikācijas pasākumu plāna projekts, t.sk. sākotnējo sabiedrisko apspriešanu plāns IVN vajadzībām - Visu izpētē analizējamo trases novietojuma variantu dzelzceļa līnijas savienojumam ar Rīgas pilsētas centru, Starptautisko lidostu „Rīga” un Rīgas brīvostas teritorijām Daugavas kreisajā un labajā krastā uzskaitījums un vispārējs apraksts

⁴ No līguma noslēgšanas brīža

MĒNESIS ⁴	NODEVUMS	NODEVUMA SATURA MINIMĀLĀS PRASĪBAS
6	1.Starpziņojums	- Precizēti Pamatvarianta tehniskie parametri un precizēta tā paredzamā darbības koncepcija; precizēts trases novietojuma Pamatvariants - IVN procedūras uzsākšana precizētajam Pamatvariantam - Izanalizēti iespējamie trases novietojuma varianti dzelzceļa līnijas savienojumam ar Rīgas pilsētas centru, Starptautisko lidostu „Rīga” un Rīgas brīvdabas teritorijām Daugavas kreisajā un labajā krastā, kā arī Pamatlīnijas iespējamie varianti, t.sk. ņemot vērā sākotnējās sabiedriskās apspriešanas rezultātus - Precizēta metodoloģija IVN veikšanai, t.sk. iesnieguma projekts Vides pārraudzības valsts birojam par paredzēto darbību - Precizēta metodoloģija paredzētās darbības atbilstības nodrošināšanai teritorijas plānošanas dokumentiem, ņemot vērā spēkā esošo un plānoto normatīvo aktu ietvaru un esošās situācijas izpēti (ar 2013.gada 8.aprīļa grozījumiem) - Precizēta pieeja detalizēto tehnisko risinājumu izstrādei (t.sk. Pasūtītāja un funkcionālo prasību precizēšana)
8	Papildinātais un precizētais 1.Starpziņojums	
9	2.Starpziņojums	- Turpmākajai detalizētai izpētei apstiprināto trases novietojuma variantu dzelzceļa līnijas savienojumam ar Rīgas pilsētas centru, Starptautisko lidostu „Rīga” un Rīgas brīvdabas teritorijām Daugavas kreisajā un labajā krastā detalizēts apraksts - Precizēta metodoloģija IVN veikšanai, ņemot vērā izsniegto darba programmu
11	Papildinātais un precizētais 2.Starpziņojums	
16	3.Starpziņojums	- Turpmākajai detalizētai izpētei apstiprināto trases novietojuma variantu dzelzceļa līnijas savienojumam ar Rīgas pilsētas centru, Starptautisko lidostu „Rīga” un Rīgas brīvdabas teritorijām Daugavas kreisajā un labajā krastā tehniskie parametri, tehniskie risinājumi ietekmes uz vidi novērtējuma vajadzībām, sarežģīto objektu principiālie risinājumi - Pieprasītie un saņemtie plānošanas – arhitektūras uzdevumi, ja attiecināms,, tehniskie noteikumi un principiālās prasības detalizētajiem tehniskajiem risinājumiem

MĒNESIS ⁴	NODEVUMS	NODEVUMA SATURA MINIMĀLĀS PRASĪBAS
		5. Izmaksu – ieguvumu analīze
18	Papildinātais un precizētais 3.Starpziņojums	
22	Noslēguma ziņojuma projekts	6. Noslēguma ziņojuma projekts, ietverot detalizētus tehniskos risinājumus vai skicē projektu galvenajai dzelzceļa līnijas trasei
24	Papildinātais Noslēguma ziņojuma projekts	7. Papildinātais Noslēguma ziņojums, ietverot turpmāko darba plānu un Būvprojektēšanas, Būvprojekta ekspertīzes. Būvuzraudzības, Autoruzraudzībai tehniskās specifikācijas
26	Papildinātais un precizētais Noslēguma ziņojums	8. Noslēguma ziņojums noformēts atbilstoši nodevuma prasībām un saturiski pilnībā atbilstošs Tehniskajai specifikācijai

(ar 2013.gada 8.aprīļa grozījumiem)

100. Nodevumi sagatavojami elektroniskā formā (gan rediģējamā, gan nerediģējamā formā) un iesniedzami Pasūtītājam ne vēlāk kā konkrētā nodevuma izpildes mēneša pēdējā dienā. Nodevumu formāts jāprecizē uzsākšanas ziņojumā.

101. Noslēguma ziņojums iesniedzams drukātā formā trīs eksemplāros un elektroniskā rediģējamā un nerediģējamā formā. Noslēguma ziņojumu Izpildītājs iesniedz elektroniskā formā: tekstu un aprēķinus sagatavo ar Microsoft Office un Adobe programmatūras palīdzību, bet grafiskos materiālus – ar ArcGIS un AutoCad.

102. Pārskata sanāksmes ar Pasūtītāju plānojamās ne retāk kā vienu reizi ceturksnī. Ceturkšņa ziņojumi par progresu sagatavojami elektroniskā rediģējamā formātā (*.ppt, *.pptx) un iesniedzami Pasūtītājam vienu darba dienu pirms ziņojuma prezentācijas atskaites sanāksmē. Ziņojumam par progresu šā formā jāaptver visi pakalpojuma izpildes saturiskie aspekti, t.sk. informācija par darbu progresu un secinājumiem darba uzdevumu ietvaros, kā arī jautājumi un problēmsituācijas. Ziņojums par progresu var saturēt īsu tehnisko atskaiti par Izpildītāja darba norisi. Ziņojumu par progresu mērķis ir:

- 1) saņemt savlaicīgu informāciju no Izpildītāja par darbu progresu un sākotnējiem secinājumiem un priekšlikumiem;
- 2) sniegt Izpildītājam iespēju saņemt savlaicīgus komentārus, viedokļus un ieteikumus ar pakalpojuma izpildi saistītajos jautājumos.

103. Nepieciešamības gadījumā var tikt organizētas iepriekš neplānotas *ad-hoc* sanāksmes, , kuras var ierosināt gan Izpildītājs, gan Pasūtītājs.

104. Izpildītājam izpētes materiālus jāiesniedz latviešu valodā. Oficiālā sarakste notiek latviešu valodā, darba sanāksmēs nepieciešamības gadījumā jānodrošina tulkojums. Komunikācija ar sabiedrību Latvijas Republikas teritorijā notiek tikai latviešu valodā, nepieciešamības gadījumā nodrošinot tulkojumu. Starpziņojumiem pievienojams izvērsts kopsavilkums angļu valodā. Izvērstajā kopsavilkumā angļu valodā jāiekļauj visi būtiskākie ziņojumā izklāstītie rezultāti, shēmas, apraksti, tabulas, utt. Noslēguma ziņojums iesniedzams latviešu un angļu valodā.

105. **Nodevumu struktūra.** Izpildītājam jāstrukturē nodevumi (ziņojumi) tā, lai Pasūtītājam visa svarīgā informācija par dzelzceļa līniju būtu pieejama vienkopus par atsevišķiem dzelzceļa līnijas posmiem. Detalizēta struktūra saskaņojama Uzsākšanas ziņojumā.

5. Izpētes un pētījumi, dati, kas jāņem vērā pakalpojuma izpildē

106. Izpildītājam pakalpojuma izpildē jāņem vērā visi zināmie pētījumi, kas ir saistīti ar izpētes priekšmetu. Šajā nodaļā sniegts pārskats par pētījumiem un izpētēm, kas ir pieejamas Pasūtītājam.

a. DZELZCEĻU JOMĀ

107. Izpildītājam jāņem vērā šādus dzelzceļu izpētes projektus, un apstiprinātos risinājumus:

- „Tehniski ekonomiskais pamatojums par Eiropas standarta platuma dzelzceļa līniju Igaunijā, Latvijā un Lietuvā (Rail Baltica koridors)”; AECOM, 2011. Pasūtītājam pieejamie iepriekšējās izpētes rasējumi.
- „Daugavas kreisā krasta dzelzceļa maršrutu uz ostas teritorijām un Starptautisko lidostu „Rīga” izpēte”; personu apvienība Konstruktionsgruppe Bauen Latvija, AC Konsultācijas, Eisenbahnplanungsgesellschaft EPG, , Estonian, Latvian, Lithuanian Environment, Konstruktionsgruppe Bauen Kempten, 2010
- „Latvijas dzelzceļa tīkla elektrifikācijas tehniski – ekonomiskā pamatojuma izstrāde”, ETC, COWI, Gauff Rail Engineering, 2011
- „RAIL BALTICA JOINT VENTURE STUDY” – šobrīd iepirkuma stadijā, paredzams, ka izpētes Noslēguma ziņojums būs pieejams 2012. gada beigās.

108. Piekļuvi šiem dokumentiem nodrošina Pasūtītājs.

b. AUTOCEĻU JOMĀ

109. Izpildītājam jāņem vērā šādus autoceļu izpētes projektus vai būvprojektus, un jārespektē akceptētās ģenerālās trases un to risinājumus, t.sk. paredzēto vietējo (lokālo) ceļu tīklu u.c.:

- „E67 Via Baltica posma a/c A4 (Saulkalne) – Bauska (Ārce) attīstības izpēte”; Ceļuprojekts, 2009.
- „E22 Austrumu ievada Rīgā tehniskās iespējamības izpēte posmā Kranciems – Slāvu aplis”; JV „EER” (Hyder SEIB Ingenieure; Froelich & Sporbeck), 2008.
- Perspektīvā E22 ceļa saites ar Granīta ielu Rīgas pilsētā (V35 Škirotava - Saurieši) iespējamās rekonstrukcijas izpēte; AS “Ceļuprojekts”, 2012.
- Skiču projekta „Autoceļa A4 Rīgas apvedceļš (Baltezers – Saulkalne) uzlabošanas un attīstība”, BRD projekts, 2006. gads risinājumu aktualizācija un papildus detalizācija 2013.
- „Ātrsatiksmes autoceļa Rīga (Bukulti) – Ādaži – Lilaste iespējamības izpēte”; SIA „Projekts 3”, 2008.
- „Autoceļa A7 Rīga – Bauska – Lietuvas robeža (Grenctāle) posma km 7,9 – 25,0 un Ķekavas apvedceļa projektēšana”; PS „PROJEKTS 3& WITTEVEEN+BOS”, 2007.
- „Autoceļa A5 Rīgas apvedceļš (Salaspils – Babīte) posma km 11,6 (A7) – 34,6 (A9) rekonstrukcijas izpēte”; AS „Ceļuprojekts”, 2010.
- „Automaģistrāles Rīga - Jelgava iespējamības izpēte”; SFS „Latvian Roads”, 2008.

- „Autoceļa A9 Rīga (Skulte) - Liepāja posma 0,000 - 38,200 km (P98) iespējamās rekonstrukcijas izpēte”; PS Latroad.
- „Priekšizpētes, skīču projekta un ietekmes uz vidi novērtējuma izstrāde Rīgas Ziemeļu transporta koridora 3. un 4. posmam no Daugavgrīvas ielas līdz autoceļa A10 (Rīga – Ventspils) satiksmes mezglam pie Priedaines”; AS „Ceļuprojekts”, 2011.
- VAS „Latvijas Valsts ceļi” piedāvātie dati par ceļu ģeometriskajiem parametriem un satiksmes intensitāti.
- „Transporta plūsmas izpēte Pierīgā un Rīgas reģiona definētā lielā loka posma Iecava – Vecumnieki – Ķegums iespējamā attīstībā”, SIA „Projekts 3”, izpētes stadijā, 2013.

110. Piekļuvi šiem dokumentiem nodrošina Pasūtītājs.

c. RĪGAS UN PIERĪGASTRANSPORTA SISITĒMAS ATTĪSTĪBAS JOMĀ

111. Izpildītājam jāņem vērā šādus pilsētas infrastruktūras satiksmes infrastruktūras un citas publiskās infrastruktūras izpētes projektus, un apstiprinātos risinājumus:

- Automaģistrāles no autoceļa A2 ievada Rīgas pilsētā līdz Vairoga ielai (Brīvības ielas dubliera) būvniecības ietekmes uz vidi novērtējums, noslēguma ziņojums; Rīgas ilgtspējīgās attīstības centrs „Agenda 21”, 2009.
- Ietekmes uz vidi novērtējuma Rīgas Ziemeļu transporta koridora 2. posma no Daugavgrīvas ielas līdz Gustava Zemgala gatvei (Vairoga ielai) būvniecībai, noslēguma ziņojums; Estonian, Latvian & Lithuanian environment, 2010.
- Priekšizpētes, skīču projekta un ietekmes uz vidi novērtējuma izstrāde Rīgas Ziemeļu transporta koridora 3. un 4. posmam no Daugavgrīvas ielas līdz autoceļa A10 (Rīga – Ventspils) satiksmes mezglam pie Priedaines; Ceļuprojekts, 2011.
- Rīgas un Pierīgas mobilitātes plāns un rīcības programma; Witteveen+Bos Raadgevende Ingenieurs B.V., 2010.

112. Piekļuve šiem dokumentiem ir publiska.

d. LIDOSTU JOMĀ

113. Izpildītājam jāņem vērā šādus aviācijas un lidostu jomas izpētes projektus, un apstiprinātos risinājumus:

- VAS „Starptautiskā lidosta „Rīga”” termināļa paplašināšanas 5., 6. kārtas skīču projekts (izstrādātājs Projektēšanas birojs Arhis, 2008. gads. Projekts izstrādāts termināļa paplašināšanas 5., 6. kārtas variantam.
- Riga International Airport Masterplan (izstrādātājs HOCHTIEF AirPort GmbH, 2009. gads. Projekts izstrādāts TAV/Skonto piedāvātajam termināļa paplašināšanas variantam.

114. Piekļuvi šiem dokumentiem nodrošina Pasūtītājs.

IEPIRKUMA PROCEDŪRAS ZIŅOJUMS

(Atklāts konkurss „Eiropas standarta platuma dzelzceļa līnijas Rail Baltica Latvijas posma detalizēta tehniskā izpēte un ietekmes uz vidi novērtējums”, Identifikācijas Nr. SAM 2012/12/TEN-T)

Rīgā

2013.gada 14.oktobrī

Iepirkuma procedūras ziņojums sastādīts, pamatojoties uz Publisko iepirkumu likuma 8.panta pirmās daļas 1.punktu un 35.panta ceturto daļu.

1. Pasūtītāja nosaukums un adrese:

Pasūtītāja nosaukums:	LR Satiksmes ministrija
Adrese:	Gogoļa iela 3, Rīga, Latvija, LV-1743
Reģ. Nr:	90000088687
Tālruņa numurs	+371-67028210
Faksa numurs	+371-67217180
e-pasta adrese	satiksmes.ministrija@sam.gov.lv

2. Iepirkuma identifikācijas numurs:

SAM 2012/12/TEN-T

3. Iepirkuma procedūras veids:

Atklāts konkurss (Publisko iepirkumu likuma 8.panta pirmās daļas 1.punkts)

4. Līguma priekšmets:

Detalizēta tehniskā izpēte, ietverot ietekmes uz vidi novērtējuma ziņojuma sagatavošanu, detalizētu tehnisko izpēti un tehnisko risinājumu sagatavošanu, finanšu un ekonomisko aprēķinu veikšanu.

5. Datums, kad paziņojums par līgumu publicēts Iepirkumu uzraudzības biroja mājaslapā internetā:

30.01.2013.

6. Iepirkuma komisijas sastāvs un tās izveidošanas pamatojums:

Iepirkuma komisija (turpmāk – komisija) izveidota, pamatojoties uz Satiksmes ministrijas 2012.gada 15.augusta rīkojumu Nr.01-03/157 „Par iepirkuma komisijas izveidošanu”.

Iepirkuma komisijas priekšsēdētājs:

Satiksmes ministrijas Dzelzceļa departamenta vadītājs

Jānis Eiduks

Iepirkuma komisijas priekšsēdētāja vietnieks:

Satiksmes ministra biroja vadītājs

Aivis Freidenfelds

Iepirkuma komisijas locekļi:

Satiksmes ministrijas Dzelzceļa departamenta vecākais referents

Juris Krastiņš

Satiksmes ministrijas Dzelzceļa departamenta vecākā referente

Kristīne Bondare

Satiksmes ministrijas Finanšu un attīstības plānošanas departamenta vecākā referente

Daiga Dolģe

Satiksmes ministrijas Juridiskā departamenta valsts kapitāla daļu pārvaldes un publisko līgumu nodaļas juriskonsults

Agnis Driksna

2013.gada 22.jūlijā pamatojoties uz Satiksmes ministrijas 2013.gada 22.jūlija rīkojumu Nr.01-03/112 „Par grozījumiem 2012.gada 15.augusta rīkojumā Nr.01-03/157 „Par iepirkuma komisijas izveidošanu”” veikti grozījumi nosakot iepirkuma komisiju šādā sastāvā:

Iepirkuma komisijas priekšsēdētājs:

Satiksmes ministrijas Dzelzceļa departamenta vadītājs

Jānis Eiduks

Iepirkuma komisijas priekšsēdētāja vietniece:

Satiksmes ministra padomniece

Karina Korna

Iepirkuma komisijas locekļi:

Satiksmes ministrijas Dzelzceļa departamenta vecākais referents

Juris Krastiņš

Satiksmes ministrijas Dzelzceļa departamenta vecākā referente

Kristīne Bondare

Satiksmes ministrijas Finanšu un attīstības plānošanas

departamenta vecākā referente

Daiga Dolģe

Satiksmes ministrijas Komunikācijas nodaļas vadītājs

Aivis Freidenfelds

Satiksmes ministrijas Juridiskā departamenta valsts kapitāla

daļu pārvaldes un publisko līgumu nodaļas juriskonsults

Agnis Driksna

7. Pretendentiem noteiktās kvalifikācijas prasības:

Nr	Nolikuma punkts	Prasības saskaņā ar nolikumu
1. Vispārējās un noformēšanas prasības		
1.1.	1.6.1.	Piedāvājums jā sagatavo latviešu valodā un jā iesniedz 4 (četros) eksemplāros – 1 (viens) oriģināls un 3 (trīs) kopijas, katrs savā iesējumā. Uz iesējuma pirmās lapas jābūt norādei „Oriģināls”, vai „Kopija”.
1.2.	1.6.2.	Piedāvājums sastāv no šādām daļām: • pretendentu atlases dokumenti atbilstoši nolikuma 4.3.punktam; • tehniskais piedāvājums atbilstoši Nolikuma 4.4.punktam; • finanšu piedāvājums atbilstoši Nolikuma 4.5.punktam
1.3.	1.6.3.	Piedāvājuma oriģināls, kopijas un piedāvājuma nodrošinājuma oriģināls jā iesniedz kopā. Piedāvājumu iesniedz aizlīmētā, aizzīmogatā iepakojumā, uz kura norāda: Neatvērt līdz 2013. gada _____ plkst. ____.
		Latvijas Republikas Satiksmes ministrija, Gogoļa iela 3, Rīga, LV-1743, iepirkuma nosaukums id. nr. SAM 2012/12 TEN-T, konkursa piedāvājums, pretendenta nosaukums, juridiskā adrese, tālrunis un fakss
1.4.	1.6.6.	Piedāvājuma dokumentiem jābūt latviešu valodā. Ārvalstu institūciju izdotie dokumenti var būt svešvalodā ar pievienotu tulkojumu latviešu valodā. Par dokumentu tulkojuma atbilstību oriģinālam atbild Pretendents
1.5.	1.6.8	Piedāvājuma dokumentos nedrīkst būt dzēsumi, aizkrāsojumi, neatrunāti labojumi, svītrojumi un papildinājumi. Kļūdainie ieraksti jāpārsvītro un jebkurš labojums jāatrunā atbilstoši Ministru kabineta 2010.gada 28.septembra noteikumiem Nr.916 "Dokumentu izstrādāšanas un noformēšanas kārtība" prasībām.
1.6.	1.6.9.	Piedāvājums jā iesniedz sanumurētām lapām, caurauklots, ar uzlīmi, kas nostiprina auklu. Uz uzlīmes jābūt lapu skaitam, Pretendenta zīmoga nospiedumam, Pretendenta pārstāvja amata nosaukumam, parakstam un tā atšifrējumam.
1.7.	1.6.10.	Piedāvājums jāparaksta personai, kura likumiski pārstāv Pretendentu vai ir pilnvarota pārstāvēt Pretendentu šajā iepirkuma procedūrā.
1.8.	1.6.13.	Tehniskais un finanšu piedāvājums jā iesniedz arī elektroniskā formā (vienreiz rakstāmā CD), ierakstīts ar MS Office vai Adobe Acrobat rīkiem nolasāmā formātā, ar pieejamu teksta meklēšanas funkcionalitāti. Uz CD jābūt uzrakstītam Pretendenta nosaukumam un iepirkuma identifikācijas numuram
2. Pretendenta iesniedzamie atlases dokumenti		
2.1.	4.2.	Pretendenta pieteikums dalībai konkursā (saskaņā ar nolikuma 2.pielikumu) apliecina Pretendenta apņemšanos piedalīties konkursā un nodrošināt Pasūtītāja prasību realizāciju saskaņā ar nolikuma un tehniskās specifikācijas prasībām. Pieteikumu paraksta persona vai personas, kas ir pilnvarotas to darīt Pretendenta vārdā. Katras personas parakstam jābūt atšifrētam (jānorāda pilns vārds, uzvārds un amats).
2.2.	4.1.	Piedāvājuma nodrošinājums atbilstoši 1.5.punktā minētajām prasībām

2.3.	4.3.1. 4.3.1.1.	Dokuments, kas apliecina, ka Pretendents ir reģistrēts likumā noteiktajā kārtībā (šajā nolikuma punktā norādītie dokumenti jāiesniedz arī par katru apakšuzņēmēju un par katru personu apvienības dalībnieku, ja Pretendents būs personu apvienība); Latvijas Republikas Komercreģistrā reģistrētiem uzņēmumiem (uzņēmēj sabiedrībām) – Uzņēmumu reģistra Komercreģistra iestādes izsniegta Pretendenta reģistrācijas apliecības kopija
2.4.	4.3.1.2.	Ārvalstu uzņēmumiem (uzņēmēj sabiedrībām) kompetentas attiecīgās valsts institūcijas izsniegts dokuments, kas apliecina, ka Pretendents ir reģistrēts likumā noteiktajā kārtībā
2.5.	4.3.2.	Apliecinājums vai vienošanās atbilstoši 1.8.1.2. apakšpunkta prasībām
2.6.	1.8.1.2.	piegādātāju apvienība. Pretendenta piedāvājumam jāpievieno visu apvienības dalībnieku parakstīts apliecinājums vai vienošanās, iekļaujot tajā šādus nosacījumus:
2.7.	1.8.1.2.1.	ka katrs apvienības dalībnieks atsevišķi un visi kopā ir atbildīgi par iepirkuma līguma izpildi;
2.8.	1.8.1.2.2.	norādot galveno dalībnieku, kurš piegādātāju apvienības dalībnieku vārdā pilnvarots parakstīt piedāvājumu, iepirkuma līgumu un citus dokumentus, saņemt un izdot rīkojumus piegādātāja apvienības dalībnieku vārdā, kā arī saņemt maksājumus no Pasūtītāja;
2.9.	1.8.1.2.3.	ja piegādātāju apvienības piedāvājumu izraudzīs saskaņā ar piedāvājuma izvēles kritēriju, tad pirms iepirkuma līguma noslēgšanas piegādātāju apvienībai jānoslēdz sabiedrības līgums, ievērojot Civillikuma 2241. – 2280. panta normas, un viens sabiedrības līguma eksemplārs (oriģināls vai kopija, ja tiek uzrādīts oriģināls) jāiesniedz Pasūtītājam. Sabiedrības līgumu var aizstāt ar pilnsabiedrības reģistrēšanu Komercreģistrā, iesniedzot reģistrācijas dokumenta kopiju;
2.11.	1.8.1.3.	personālsabiedrība (pilnsabiedrība vai komandītsabiedrība) (turpmāk tekstā arī – Pretendents) norādot visus sabiedrības dalībniekus.
2.12.	4.3.3.	Uzņēmumu reģistra izziņas vai cita dokumenta apliecināta kopija par:
	4.3.3.1.	<u>Pretendenta</u> likumiskā pārstāvja vai pilnvarotās personas tiesībām pārstāvēt komercsabiedrību, parakstot piedāvājumu
	4.3.3.2.	komercsabiedrības likumiskā pārstāvja vai pilnvarotās personas tiesībām pārstāvēt komersantu, kura vārdā persona ir parakstījusi kādu no šādiem dokumentiem: 1) nolikuma 1.8.1.2. apakšpunktā minēto vienošanos, 2) jebkura veida apliecinājumu, kas izsniegts atbilstoši PIL 41. panta trešās daļas un 42. panta trešās daļas noteikumiem
2.13.	3.2.	Nosacījumi Pretendenta profesionālās darbības veikšanai: Pretendentam (tajā skaitā personu apvienības dalībniekam, apakšuzņēmējam) jābūt reģistrētam Komercreģistrā vai līdzvērtīgā reģistrā ārvalstīs, licencētam vai sertificētam atbilstoši attiecīgās valsts normatīvo aktu prasībām.
2.14.	3.3. 3.3.1.	Pretendenta tehniskās un profesionālās spējas: Pretendents kā galvenais uzņēmējs (līguma slēdzējs) vai vismaz viens no personu apvienības dalībniekiem kā galvenais uzņēmējs (līguma slēdzējs) pēdējo 3 (trīs) gadu laikā ir īstenojis līdzvērtīgus līgumus. Par līdzvērtīgiem līgumiem un līdzvērtīgu pieredzi tiks uzskatīta vismaz šāda pieredze:
2.15.	3.3.1.1.	vismaz 2 (divi) īstenoti būvprojektēšanas līgumi, kur veikta jaunas liela mēroga Eiropas standarta platuma dzelzceļa līnijas vai esošas Eiropas standarta platuma dzelzceļa līnijas būvprojektēšana vai izpēte, un katra noslēgtā līguma summa nav mazāka par LVL 100 000,00 (neieskaitot PVN). Ar liela mēroga dzelzceļa līnijas būvprojektu tiek saprasts tāds būvprojekts, kura būvizmaksas pārsniedz LVL 30 000 000,00 (neieskaitot PVN).
2.16.	3.3.1.2.	vismaz 2 (divi) īstenoti konsultāciju projekti, kur veikts liela mēroga transporta infrastruktūras objekta ietekmes uz vidi novērtējums. Ar liela mēroga transporta infrastruktūru tiek saprasts tāds transporta infrastruktūras objekts, kurš ietverts maģistrālajā autoceļā vai dzelzceļā tīklā, un kura būvniecības izmaksas pārsniedz LVL 30 000 000,00 (neieskaitot PVN).
2.17.	4.3.4.	atbilstoši nolikuma 4.3.9.apakšpunktā noteiktajām prasībām aizpildīta tabula par Pretendenta pieredzi
2.18.	4.3.6.	informācija par līguma izpildē iesaistīto personālu (speciālistiem) atbilstoši nolikuma 4.3.11.apakšpunkta prasībām
2.19.	4.3.9.	Informācija par pretendenta pieredzi, kas apliecina nolikuma 3.3.1. apakšpunkta prasību, tabulā norādot pasūtītāju un tā kontaktinformāciju, pakalpojumu sniegšanas laiku un īsu projekta aprakstu (projekta aprakstā norāda arī projekta finanšu apjomu)
2.20.	4.3.10	Atsauksmes no pasūtītājiem, kas piedāvājumā norādīti saskaņā ar nolikuma 4.3.9.punktu, kas apliecina Pretendenta atbilstību katrai no nolikuma 3.3.1.apakšpunkta prasībās ietvertā projekta īstenošanas pieredzei. Atsauksmē jābūt ietvertai visai nepieciešamajai informācijai, lai pasūtītājs varētu izvērtēt Pretendenta atbilstību attiecīgajai nolikuma prasībai, kā arī norādītai kontaktpersonai un kontaktinformācijai
2.21.	4.3.11.	Šāda informācija par līguma izpildē iesaistīto personālu (speciālistiem), kas apliecina 3.3.2. apakšpunkta prasību izpildi:
	4.3.11.1	sertifikāti vai licences, izglītību apliecinājošie dokumenti (kopijas)
	4.3.11.2.	Pretendenta piedāvāto speciālistu pašrocīgi parakstīts CV atbilstoši formai (Pielikums Nr.3)
	4.3.11.3.	citi dokumenti, kas apliecina atbilstību izvirzītajām prasībām
2.22.	4.3.12	<u>Pretendenta visu personu apvienības vai personālsabiedrības dalībnieku un piesaistīto apakšuzņēmēju</u> (ja Pretendents plāno piesaistīt apakšuzņēmējus) pēdējo trīs gadu (t.i. 2009.-2011.g.) peļņas vai zaudējumu aprēķinu apliecinātas kopijas

2.23.	3.4.	Prasības attiecībā uz pretendenta saimniecisko un finansiālo stāvokli: Pretendenta vidējais gada finanšu apgrozījums bez PVN iepriekšējo trīs gadu (t.i. 2009.-2011.g.) laikā ir vismaz Pretendenta finanšu piedāvājumā norādītās līgumcenas apmērā. Pretendenta, kas dibināts vēlāk par 2009.gadu, gada vidējais finanšu apgrozījums nostrādātajā periodā ir vismaz Pretendenta finanšu piedāvājumā norādītās līgumcenas apmērā.
2.24.	4.3.14.	Pretendents savā piedāvājumā norāda visus <u>tos apakšuzņēmējus</u> , kuru sniedzamo pakalpojumu vērtība ir 20 procenti no kopējās iepirkuma līguma vērtības vai lielāka, un katram šādam apakšuzņēmējam izpildei nododamo pakalpojumu līguma daļu
2.25.	4.5.3.	Finanšu piedāvājums jā sagatavo atbilstoši nolikumam pievienotajai formai (4.pielikums)

3.3.2. Līguma izpildē jāiesaista šāds personāls (speciālisti) ar vismaz šādu minimālo pieredzi:

Nr.	Līguma izpildē iesaistītie speciālisti	Izglītība, pieredze un prasmes
1.	Projekta vadītājs	Augstākā izglītība transporta būvju jomā vai ekonomikā, vai biznesa vadībā (bakalaura grāds, profesionālā augstākā vai maģistra vai doktora grāds); vismaz desmit gadu pieredze projektu vadībā; vismaz piecu gadu pieredze izpētes vai būvprojektēšanas projektu vadībā transportbūvju jomā; pieredze projekta vadītāja amatā vismaz vienā izpētes vai būvprojektēšanas projekta vadībā, kura ietvaros veikta izpēte vai būvprojektēšana jaunai dzelzceļa līnijai vismaz 50 km.
2.	Ekonomists	Vismaz maģistra grāds ekonomikā, finansēs vai uzņēmējdarbības vadībā pēdējo piecu gadu laikā veiktas vismaz divas izmaksu-ieguvumu analīzes jaunbūvējamai transportbūvei atbilstoši Eiropas Komisijas 2008. gada Vadlīnijām investīciju projektu izmaksu-ieguvumu analīzes veikšanai
3.	Vilcienu kustības vadības sistēmu projektēšanas speciālists	Inženiera kvalifikācija vilcienu kustības vadības sistēmu projektēšanā pieredze ERTMS track side (Eiropas vilcienu kustības vadības sistēmas lauka ierīču) projektēšanā - vismaz viens pabeigts būvprojektēšanas projekts.
4.	Dzelzceļa elektroapgādes un kontakttīklu speciālists	Inženiera kvalifikācija transporta elektroapgādē un/vai kontakttīklos pieredze kā dzelzceļa elektroapgādes un kontakttīklu projektēšanas ekspertam vismaz divos projektos, no kuriem vismaz viens ir pabeigts pēdējo piecu gadu laikā.
5.	Dzelzceļa projektēšanas speciālists	Inženiera kvalifikācija transporta būvju jomā; vismaz piecu gadu pieredze kā dzelzceļa būvprojektu vadītājam vismaz divos projektos; pieredze būvprojektēšanā atbilstoši SITS un 1435mm standarta dzelzceļa līnijās.
6.	Tiltu projektēšanas speciālists	Inženiera kvalifikācija transporta būvju jomā vismaz 5 gadu pieredze kā tiltu projektēšanas atbildīgajam speciālistam (būvprojekta sadaļas vadītājs); pieredze kā tiltu projektēšanas inženierim vismaz divos projektos, no kuriem vismaz viens ir pabeigts, un no kuriem vismaz viens ir projekts dzelzceļa jomā, un no kuriem vismaz viens ir daudzlīmeņu šķērsojumu projektēšana.
7.	Tuneļu projektēšanas speciālists	Inženiera kvalifikācija transporta būvju jomā; vismaz piecu gadu pieredze kā tuneļu projektēšanas atbildīgajam speciālistam; pieredze kā autoceļu vai dzelzceļu tuneļu projektēšanas ekspertam vismaz divos projektos, no kuriem vismaz viens ir pabeigts, un no kuriem viens ir tuneļa būvprojekts pilsētvidē.
8.	Autoceļu projektēšanas speciālists	Inženiera kvalifikācija transporta būvju jomā vismaz piecu gadu pieredze kā valsts galveno autoceļu būvprojektu vadītājam; vismaz divu autoceļu būvprojektu izstrādes vadībā pēdējo piecu gadu laikā.
9.	Teritorijas attīstības plānošanas dokumentu izstrādes vadītājs	Augstākā izglītība (bakalaura grāds, profesionālā augstākā vai maģistra vai doktora grāds); vismaz piecu gadu pieredze teritorijas attīstības plānošanā; praktiskā pieredze vismaz piecu vietēja līmeņa teritorijas attīstības plānošanas dokumentu izstrādē; praktiskā pieredze vismaz viena nacionāla vai reģionāla līmeņa teritorijas attīstības plānošanas dokumenta izstrādē; praktiskā pieredze Latvijas Republikā un LR normatīvo aktu pārzināšana.
10.	Dzelzceļa satiksmes vadības speciālists	Inženiera kvalifikācija dzelzceļa ekspluatācijas vai transporta plānošanas jomā; Vismaz piecu gadu pieredze dzelzceļa satiksmes vadības un plānošanas jomā (dzelzceļa

		pārvadājumu plānošana un kustības grafiku izstrāde).
11.	Vides speciālists	Augstākā izglītība vides zinātņu jomā (bakalaura grāds, profesionālā augstākā vai maģistra vai doktora grāds); pēdējo piecu gadu laikā pieredze kā vides ekspertam vismaz divos ietekmes uz vidi novērtējuma līnijbūvju projektos, no kuriem vismaz viens ir pabeigts; pieredze kā ietekmes uz vidi novērtējuma ziņojuma sagatavošanas projekta vadītājam vismaz vienam projektam transportbūvju jomā.
3.3.	Piesaistītajiem speciālistiem ir jābūt pieejamiem konkursa rezultātā noslēdzamā līguma izpildei visu līguma darbības laiku.	
3.3.	Visiem iesaistītajiem speciālistiem tieši vai ar tulka palīdzību ir jābūt spējīgiem komunicēt (gan mutiski, gan rakstiski) latviešu valodā. Pretendentam visā līguma izpildes laikā ir jānodrošina tulka pakalpojumi.	

8. Piedāvājuma izvēles kritērijs, vērtēšanas kritēriji un to īpatsvars nozīmīguma secībā:

8.1. piedāvājuma izvēles kritērijs - saimnieciski izdevīgākais piedāvājums;

8.2. vērtēšanas kritēriji un to īpatsvars nozīmīguma secībā:

	Saimnieciski izdevīgākā piedāvājuma vērtēšanas kritēriji	Maksimālā skaitliskā vērtība
A	Kopējā cena (bez PVN)	40
B	Pakalpojuma izpildes apraksta (tehniskais piedāvājums) kvalitāte	60
	Maksimālais iespējamais kopējais punktu skaits	100

9. Piedāvājumu iesniegšanas termiņš:

07.06.2013. plkst.14:00.

10. Pretendenti, kuri ir iesnieguši piedāvājumus, kā arī piedāvājuma iesniegšanas datums un laiks, piedāvātās cenas:

Nr .	Pretendents	Piedāvājuma iesniegšanas datums un laiks	Piedāvātā cena, EUR, bez PVN
1.	SYSTRA/AECOM Rail Baltic Latvia Joint Venture	07.06.2013., plkst. 12:21	6 926 881,40
2.	Personu apvienība OBERMEYER, VERTEX, INŽENIERBŪVE	07.06.2013., plkst. 12:27	8 855 543,00
3.	TEN-T Tōmegkōzlekedēs Energiaellātāsāt Tervezō es Kivitelezō Zārtkōrūen Mūkōdō Rēszvēnytārsqsāg	07.06.2013., plkst. 12:44	6 950 000,00
4.	Konsorcijs „EUROESTUDIOS un PROJEKTS 3 SIA”	07.06.2013., plkst. 13:16	6 002 900,00
5.	SENER SPOLKA Z ORGANIZICZONA ODPOWIEDZALNOSCIA	07.06.2013., plkst. 13:22	9 299 000,00
6.	Personu apvienība ILF & Geo Consultants	07.06.2013., plkst. 13:36	7 877 000,00

7.	DB International GmbH	07.06.2013., plkst. 13:44	9 650 000,00
8.	Personu apvienība Konstruktionsgruppe Bauen Latvija, Grupa 93, EPG Eisenbahn und Bauplanungs – Gesellschaft mbH Erfurt	07.06.2013., plkst. 13:56	3 993 000,00

11. Piedāvājumu atvēršanas vieta, datums un laiks:

Satiksmes ministrija, 4. stāva lielā sēžu zāle, Gogoļa iela 3, Rīga, LV-1743, 07.06.2013. plkst.14:00.

12. Piedāvājumu vērtēšanas kopsavilkums un pamatojums piedāvājumu izvēlei.

12.1. Pretendentu saimnieciski izdevīgākā piedāvājuma vērtēšanas kopsavilkums.

Pretendents	Saimnieciski izdevīgākā piedāvājuma vērtēšanas kritēriji		
	Kopējā cena (bez PVN)	Pakalpojuma izpildes apraksta kvalitāte	Kopā
SYSTRA/AECOM Rail Baltic Latvia Joint Venture	23.1	43.1	66.2
Konsorcijs „EUROESTUDIOS un PROJEKTS 3 SIA”	26.6	48.2	74.8
SENER SPOLKA Z ORGANICZONA ODPOWIEDZALNOSCIA	17.2	30.4	47.6
Personu apvienība ILF & Geo Consultants	20.3	47.2	67.5
DB International GmbH	16.6	56.3	72.9
Personu apvienība „EPG Eisenbahn und Bauplanungs – Gesellschaft mbH Erfurt”, „Grupa 93”, „Konstruktionsgruppe Bauen Latvija”	40.0	38.6	78.6

12.2. Atbilstoši Nolikuma 5.3.10.apakšpunktam par saimnieciski visizdevīgāko tika atzīts Personu apvienības „EPG Eisenbahn und Bauplanungs – Gesellschaft mbH Erfurt”, „Grupa 93”, „Konstruktionsgruppe Bauen Latvija” piedāvājums, jo tas atbilda visām Nolikumā noteiktajām prasībām un ir ieguva vislielāko punktu skaitu. Piedāvātā cena - 3 993 000,00 EUR bez PVN.

13. Pamatojums lēmumam par noraidītajiem pretendentiem, kā arī par iepirkuma procedūras dokumentiem neatbilstošajiem piedāvājumiem.

13.1. Atbilstoši Nolikuma 5.1.1. un 5.1.2.apakšpunktam pretendentu atlases laikā iepirkuma komisija vērtē Pretendentu atlases dokumentus saskaņā ar Nolikuma 3.punktu un 4.punktu, lai pārliecinātos, vai Pretendents atbilst noteiktajām Pretendentu atlases un kvalifikācijas prasībām. Iepirkuma komisija atlasa tos pretendētus, kuri atbilst visām nolikumā izvirzītajām prasībām. Ja pretendents neatbilst kādai no nolikumā izvirzītajām prasībām, iepirkuma komisija turpmāk tā piedāvājumu neizskata. Saskaņā ar minēto no turpmākas dalības konkursā tika izslēgti šādi pretendenti:

13.1.1. **TEN-T Tömegközlekedés Energiaellátását Tervező és Kivitelező Zártkörűen Működő Részvénytársaság** iesniegtais piedāvājums tika atzīts kā neatbilstošs konkursa nolikuma 3.3.2.apakšpunkta 3.punktā noteiktajām prasībām Vilcienu kustības vadības sistēmu projektēšanas speciālistam, proti, „*pieredze ERTMS track side (Eiropas vilcienu kustības vadības sistēmas lauka ierīču) projektēšanā - vismaz viens pabeigts būvprojektēšanas projekts*”.

Izvērtējot TEN-T Tōmegközlekedēs Energiaellātāsāt Tervezō es Kivitelezō Zārtkōrűen Működō Részvénytársaság iesniegtos dokumentus (iesniegtos piedāvājumu un 2013.gada 2.augustā saņemto Dr.Rozsa Gabor CV) iepirkuma komisija konstatēja, ka Vilcienu kustības vadības sistēmu projektēšanas speciālistam Dr.Rozsa Gabor ir pieredze dokumentu sagatavošanā, nevis ERTMS track side (Eiropas vilcienu kustības vadības sistēmas lauka ierīču) projektēšanā - vismaz viens pabeigts būvprojektēšanas projekts.

13.1.2. Personu apvienības „OBERMEYER, VERTEX, INŽENIERBŪVE” iesniegtais piedāvājums tika atzīts kā neatbilstošs konkursa nolikuma 3.3.2.apakšpunkta 9.punktā noteiktajām prasībām Teritorijas attīstības plānošanas dokumentu izstrādes vadītājam, proti, „*praktiskā pieredze vismaz viena nacionāla vai reģionāla līmeņa teritorijas attīstības plānošanas dokumenta izstrādē*”. Personu apvienības „OBERMEYER, VERTEX, INŽENIERBŪVE” piedāvājumā teritorijas attīstības plānošanas dokumentu izstrādes vadītāja CV ir norādīts, ka tas ir izstrādājis Kurzemes plānošanas reģiona sociālo pakalpojumu attīstības programmu 2011.-2018.gadam (turpmāk – programma). Izstrādātā programma ir reģionāla līmeņa vidēja termiņa politikas plānošanas dokuments, kas tika izstrādāta atbilstoši normatīvajiem aktiem (tajā skaitā 2009.gada 4.augusta Ministru kabineta noteikumiem Nr.867 „Noteikumi par darbības programmas “Cilvēkresursi un nodarbinātība” papildinājuma 1.4.1.2.4.apakšaktivitātes “Sociālās rehabilitācijas un institūcijām alternatīvu sociālās aprūpes pakalpojumu attīstība reģionos” pirmo kārtu”), lai sekmētu līdzsvarotu un ilgtspējīgu alternatīvo sociālo pakalpojumu attīstību Kurzemes reģionā.

Attīstības plānošanas sistēmas likuma (turpmāk - APSL) 6.panta pirmā daļa nosaka attīstības plānošanas dokumentu veidus - politikas plānošanas dokumenti, institūciju vadības dokumenti un teritorijas attīstības plānošanas dokumenti. Saskaņā ar APSL 6.panta otro daļu politikas plānošanas dokumentā nosaka mērķus, uzdevumus un rīcību vienas vai vairāku politikas jomu, nozaru vai apakšnozaru attīstības veicināšanai. Plānošanas reģiona sociālo pakalpojumu attīstības programma ir vērsta uz sociālo pakalpojumu jomas sakārtošanu.

Programma izstrādāta laika posmā no 2009.gada decembra līdz 2010.gada maijam. Līdz 2010.gada 1.aprīlim, kad stājās spēkā grozījumi Reģionālās attīstības likumā, nozaru attīstības programma tika definēta kā vidēja termiņa (septiņi gadi) politikas plānošanas dokuments (nevis teritorijas attīstības plānošanas dokuments), kas attiecas uz noteiktu jomu un nosaka mērķus, galvenos uzdevumus un sasniedzamos rezultātus šīs jomas attīstībā.

Teritorijas attīstības plānošanas līmeņus un dokumentu veidus līdz 2011.gada 1.decembrim noteica Teritorijas plānošanas likums, kas zaudēja spēku ar jaunā Teritorijas attīstības plānošanas likuma (turpmāk – TAPL) spēkā stāšanos, savukārt šobrīd saskaņā ar TAPL 5.panta pirmās daļas 2.punktu reģionālā līmenī ir divi teritorijas attīstības plānošanas dokumentu veidi - plānošanas reģiona ilgtspējīgas attīstības stratēģija un attīstības programma.

14. Lēmums par iepirkuma procedūras rezultātiem:

Lēmums par līguma slēgšanu ar Personu apvienību „„EPG Eisenbahn und Bauplanungs – Gesellschaft mbH Erfurt”, „Grupa 93”, „Konstruktionsgruppe Bauen Latvija”” tika pieņemts iepirkuma komisijas 10.10.2013. sēdē (protokols Nr.37).

Iepirkuma komisijas priekšsēdētājs: _____ J.Eiduks

Sagatavoja:

Iepirkuma komisijas sekretāre: _____ D.Osmāne

APSTIPRINĀTS:
Latvijas Republikas Satiksmes ministrijas
Iepirkuma komisijas
2014. gada 24. novembra sēdē,
protokols Nr. 6
Iepirkuma komisijas priekšsēdētājs

_____ (Māris Riekstiņš)

SLĒGTA KONKURSA

**Rail Baltica dzelzceļa līnijas intermodālā kravu loģistikas
centra Latvijā darbības plāna un tehnisko risinājumu
izstrāde**

KANDIDĀTU ATLASES NOLIKUMS

(ar 2014.gada 24.novembra grozījumiem)

Iepirkuma identifikācijas Nr. SM 2014/15 TEN-T

Rīga, 2014

1. Pasūtītājs, projekts un finansējuma avots

- 1.1 Pasūtītājs - Latvijas Republikas Satiksmes ministrija, Gogoļa ielā 3, Rīgā, LV-1743.
- 1.2 Iepirkums tiek finansēts no Eiropas Komunikāciju tīklu (TEN-T) budžeta un valsts budžeta programmas „Finansējums Eiropas Savienības politiku instrumentu un pārējās ārvalstu finanšu palīdzības līdzfinansēto projektu un pasākumu īstenošanai” finanšu līdzekļiem.
- 1.3 Iepirkumu regulē Latvijas Republikas normatīvie akti.
- 1.4 Kontaktpersona – Iepirkuma komisijas loceklis Kaspars Vingris (adrese: Gogoļa ielā 3, Rīgā, LV-1743, 504.telpa, tālrunis: +371 67 028 275, fakss : +371 67028307, e-pasts: Kaspars.Vingris@sam.gov.lv).
- 1.5 Iepirkuma procedūra tiek veikta, lai ieviestu projekta „Dzelzceļa līnijas Rail Baltica Latvijas posma skīču projekta izstrāde un darbību izpēte”, 2012-LV-27120-S (turpmāk – Projekts) aktivitātes.

2. Iepirkuma priekšmets, iepirkuma mērķis, CPV kods, iepirkuma izpildes vieta un termiņš

- 2.1 Iepirkuma priekšmets ir intermodāla kravu loģistikas centra izpēte un plānošana.
- 2.2 Iepirkuma mērķis ir veikt izpēti par **Rail Baltica dzelzceļa līnijas intermodālā kravu loģistikas centru Latvijā** (turpmāk RBILC”) - detalizēta darbības projekta izstrāde saistībā ar kopējo loģistikas sistēmu Latvijā, trīs Baltijas valstīs un Baltijas jūras reģionā, un ņemot vērā sasaisti ar globālo loģistikas ķēžu kravu plūsmām. Izpēte nepieciešama, lai pieņemtu lēmumus par loģistikas centru / intermodālo terminālu perspektīvo atrašanās vietu valsts transporta tīklā, kā arī plānojot publiskā sektora investīcijas šādas infrastruktūras attīstībai ilgtermiņā.
- 2.3 Izpildītāja uzdevums ir sagatavot RBILC no visiem aspektiem pamatotu projekta koncepciju tās ģenerālvariantā, ietverot tajā:
 - 2.3.1 Detalizētu tirgus analīzi un pieprasījuma noteikšanu,
 - 2.3.2 Apjomīgu kravu plūsmu datu ieguvu, analīzi un modelēšanu un prognozēšanu,
 - 2.3.3 Biznesa un pārvaldības koncepciju, ietverot finansēšanas plānu,
 - 2.3.4 Loģistikas centra un tā terminālu tehniskos un tehnoloģiskos risinājumus,
 - 2.3.5 Detalizētas tehniskas, tehnoloģiskas, būvniecības procesa, finanšu un ekonomiskas, darbības un pārvaldības, kā arī iepirkumu rekomendācijas Pasūtītāja turpmākai rīcībai projekta attīstīšanā.
- 2.4 Izpildītājam jāpiedāvā risinājums, kas nodrošina RBILC visu sauszemes transporta veidu efektīvu mijiedarbību (tajā skaitā starp divu sistēmu dzelzceļiem - esošo Latvijas dzelzceļa sistēmu 1520 mm standartā un jaunbūvējamo Eiropas sliežu ceļa platuma (1435 mm) dzelzceļa līniju) un sasaisti ar Latvijas lielākajām ostām un starptautisko Lidošanu „Rīga”.
- 2.5 Izpēte veicama trīs lielākos savstarpēji saistītos un secīgos posmos:
 - 2.5.1 Pirmais posms: Situācijas izpēte;
 - 2.5.2 Otrais posms: Loģistikas centra risinājumu izstrāde;
 - 2.5.3 Trešais posms: Loģistikas centra ģenerālvarianta detalizācija.
- 2.6 Situācijas izpētes posmā Izpildītājam (indikatīvs saraksts):

- 2.6.1 jāveic makroekonomiskā konteksta, kā arī esošo un potenciālo starptautisko un vietējo kravu plūsmu izpēti, identificējot to apjomus, kravu veidus, maršrutus un iesaistītos dalībniekus, kā arī transportēšanas tehniski ekonomiskos rādītājus;
- 2.6.2 jāizpēta pašreizējā Latvijas transporta un loģistikas infrastruktūra, raksturojot tās objektu izvietojumu, apstrādātās kravas, sniegtos pakalpojumus un izmantotās tehnoloģijas un tehniku;
- 2.6.3 jāizpēta ārvalstu līdzīga profila un mēroga intermodālo loģistikas centru biznesa un attīstības labo praksi;
- 2.6.4 jāizpēta iespējamās intermodālās dzelzceļu pārvadājumu / loģistikas centru tehnoloģijas;
- 2.6.5 jāizpēta perspektīvā plānoto loģistikas un kravu apstrādes infrastruktūras objektu attīstība Latvijā un jāsniedz to raksturojums, novērtējot šo infrastruktūras objektu iespējamo ietekmi uz RBILC darbību;
- 2.6.6 jāizpēta perspektīvā plānoto kravu punktu atrašanās vietas Latvijā, to raksturojums, novērtējot to iespējamo ietekmi uz RBILC darbību;
- 2.6.7 jāprognozē un jāmodelē perspektīvās kravu plūsmas, kas attiecas uz RBILC;
- 2.6.8 jānosaka RBILC iespējamo lomu un ietekmi kravu loģistikas sistēmā dažādiem kravu veidiem.
- 2.7 Loģistikas centra risinājumu izstrādes posmā Izpildītājam (indikātv saraksts):
 - 2.7.1 pamatojoties uz pirmā posma rezultātiem, jāizstrādā RBILC funkcijas (darbības profila), plānojuma, aprīkojuma (tehnoloģisko risinājumu) un darbības (pārvaldības modeļa gan operacionālajā, gan PPP izpratnē) iespējamie alternatīvie varianti;
 - 2.7.2 iespējamie RBILC īstenošanas alternatīvie varianti jāizstrādā un jāizvērtē vairākās dimensijās un ņemot vērā vairākus jēgpilnus attīstības scenārijus, kā arī nosakot stadiālas attīstības posmus;
 - 2.7.3 jāveic izvēlētais centra atrašanās vietas pieejamības un piemērotības paredzētajai darbībai izpēti;
 - 2.7.4 jāveic RBILC investīciju un darbības fāzes ietekmes uz vidi analīze;
 - 2.7.5 jāizstrādā un jāizvērtē iespējamie RBILC pārvaldības un finansēšanas modeļi, t.sk. identificējot RBILC partnerus un to iesaisti;
 - 2.7.6 labākajiem atlasītajiem alternatīvajiem variantiem jāveic tehniski ekonomiskā analīze, vispusīgi analizējot iespējamo RBILC projekta īstenošanas finanšu un ekonomisko ietekmi, rezultātā pamatojot un piedāvājot ekonomiski izdevīgāko alternatīvo variantu – ģenerālvariantu;
 - 2.7.7 Jāizstrādā ģenerālvarianta ieviešanas plāns, aptverot vairākus projekta ieviešanas variantus, jāidentificē vēlmais ieviešanas variants.
- 2.8 Loģistikas centra ģenerālvarianta detalizācijas posmā Izpildītājam, pamatojoties uz izvēlēto un ar Pasūtītāju saskaņoto ekonomiski izdevīgāko RBILC projekta īstenošanas alternatīvu (indikātv saraksts):
 - 2.8.1 jāizstrādā ģenerālvarianta galveno objektu un zonu izvietojuma plāns, ietverot provizoriskās skices infrastruktūras izvietojumam;
 - 2.8.2 jāizstrādā intermodālā dzelzceļa transporta termināla optimālais tehnoloģiskais modelis;
 - 2.8.3 jāveic autoceļu un dzelzceļa risinājumu detalizācija centra teritorijā;

- 2.8.4 jāveic stadiālas attīstības koncepcijas izstrāde;
- 2.8.5 jāveic detalizēts izmaksu aprēķins;
- 2.8.6 jāveic turpmākās rīcības un iepirkumu plāna izstrāde;
- 2.8.7 Jāizstrādā provizorisks investīciju un darbības uzturēšanas finansēšanas modelis, naudas plūsmas prognoze, t.sk. identificējot projekta partnerus un to atbildības.
- 2.9 Iepirkuma priekšmeta CPV kods: 71241000-9 (papildus CPV kodī 79314000-8, 71242000-6, 71410000-5).
- 2.10 Iepirkuma izpildes vieta: Rīga.
- 2.11 Iepirkuma līguma izpildes termiņš ir līdz astoņiem mēnešiem no līguma noslēgšanas dienas. Gadījumā, ja līgums tiks noslēgts pēc 2015. gada 2. marta izpildes termiņš ir līdz 2015. gada 2. novembrim.
- 2.12 Kandidātu atlases nolikuma tulkojumam angļu valodā ir tikai informatīvs raksturs. Atšķirīgas interpretācijas gadījumā noteicošais ir kandidātu atlases nolikuma teksts latviešu valodā.

3. Pieteikuma iesniegšanas un atvēršanas laiks, vieta un kārtība

- 3.1 Pieteikums jāiesniedz līdz 2014. gada **15.decembrī** plkst. 11:00 Satiksmes ministrijā, Dzelzceļa departamentā 504.telpā, (iepriekš sazinoties ar 1.4.punktā norādīto kontaktpersonu caurlaides sagatavošanai), Gogoļa ielā 3, Rīgā, LV-1743. Pieteikums jāiesniedz personīgi, jāatsūta pa pastu vai ar kurjerpastu. Pieteikumam jābūt nogādātam šajā punktā noteiktajā adresē līdz augstāk minētajam termiņam.
- 3.2 Pieteikumi, kas iesniegti pēc 3.1.punktā minētā termiņa, netiks vērti vaļā un vērtēti. Pasta sūtījumam jābūt nogādātam ministrijā līdz 3.1.punktā norādītajam termiņam. Pasta sūtījumi, kas tiks saņemti pēc 3.1.punktā norādītā termiņa, netiks vērti vaļā un neatplēstā veidā tiks atdoti vai nosūtīti atpakaļ iesniedzējam.
- 3.3 Saņemot pieteikumu, Pasūtītājs reģistrē tos iesniegšanas secībā, norādot kandidātu, pieteikuma iesniegšanas datumu un laiku.
- 3.4 Pieteikumi tiks atvērti Satiksmes ministrijā, Gogoļa ielā 3, Rīgā, LV-1743, 313.telpā pēc pieteikumu iesniegšanas termiņa beigām. Pieteikumu atvēršana ir atklāta.
- 3.5 Pieteikumus atver to iesniegšanas secībā. Pasūtītājs nosauc kandidātu, pieteikuma iesniegšanas datumu un laiku. Pēc pieteikumu atvēršanas sanāksmi slēdz.

4. Pieteikuma grozīšana un atsaukšana

- 4.1 Kandidāts var atsaukt savu pieteikumu līdz pieteikumu iesniegšanas termiņa beigām, ierodoties kandidāta pārstāvim personīgi pieteikuma uzglabāšanas vietā Satiksmes ministrijā, Dzelzceļa departamentā 504.telpā, Gogoļa ielā 3, Rīgā, LV-1743, un iesniedzot iesniegumu, kuru ir parakstījusi kandidātu pārstāvēt tiesīga persona, par pieteikuma atsaukšanu un iesniedz paraksta tiesības apliecināšu dokumentu (izziņu no Uzņēmumam reģistra, pilnvaru vai citu dokumentu, kas apliecina, ka attiecīgā persona ir tiesīga parakstīt dokumentus kandidāta vārdā) vai nosūtot Pasūtītājam pa pastu vai ar kurjerpastu paziņojumu par atsaukumu. Pieteikuma atsaukšanai ir bezierunu raksturs un tā izslēdz kandidātu no tālākas dalības slēgtā konkursā.
- 4.2 Kandidāts var grozīt savu pieteikumu līdz pieteikumu iesniegšanas termiņa beigām, ierodoties personīgi pieteikumu uzglabāšanas vietā Satiksmes ministrijā, Dzelzceļa departamentā 504.telpā, Gogoļa ielā 3, Rīgā, LV-1743, un iesniedzot pieteikuma

grozījumus vai jaunu pieteikumu vai nosūtot Pasūtītājam pa pastu vai ar kurjerpastu pieteikuma grozījumus vai jaunu pieteikumu. Pieteikuma grozīšanas gadījumā par pieteikumu iesniegšanas laiku tiks uzskatīts pēdējo grozījumu iesniegšanas brīdis.

- 4.3 Pieteikuma grozījumi vai paziņojums par pieteikuma atsaukšanu jāiesaiņo, jānoformē un jāiesniedz tāpat kā pieteikums, attiecīgi norādot „*Pieteikuma grozījumi*” vai „*Pieteikuma atsaukums*”.

5. Pieteikuma noformējums

- 5.1 Pieteikums jā sagatavo un jāiesniedz 2 (divos) eksemplāros – 1 (viens) pieteikuma oriģināls un 1 (viens) kopija. Pieteikuma oriģināls ir jāiesniedz arī skenētā veidā PDF formātā uz elektroniskā datu nesēja (CD-R, DVD-R vai USB).
- 5.2 Pieteikums iesniedzams aizlīmētā iepakojumā, uz kura jānorāda:

Neatvērt līdz 2014. gada **15.decembrim** plkst. 11⁰⁰
LATVIJAS REPUBLIKAS SATIKSMES MINISTRIJA
Gogoļa iela 3, Rīga, LV-1743
IEPIRKUMA id. nr. SM 2014/15 TEN-T „Rail Baltica
dzelzceļa līnijas intermodālā kravu loģistikas centra Latvijā
darbības plāna un tehnisko risinājumu izstrāde”
PIETEIKUMS SLĒGTAM KONKURSAM

kandidāta nosaukums, juridiskā adrese, tālrunis un fakss

- 5.3 Iepakojumā jābūt ievietotam kandidāta pieteikuma oriģinālam (ar uzrakstu „ORIĢINĀLS”), kandidāta pieteikuma apliecinātai kopijai (ar uzrakstu „KOPIJA”) un pieteikuma oriģināla skenētai versijai elektroniskajā datu nesējā (CD-R, DVD-R vai USB, un datu nesējs ir marķēts ar pretendenta nosaukumu un iepirkuma identifikācijas numuru).
- 5.4 Ja iepakojums nav noformēts atbilstoši nolikuma prasībām, Pasūtītājs nav atbildīgs par pieteikuma nonākšanu pie nepareiza adresāta vai tā priekšlaicīgu atvēršanu.
- 5.5 Pieteikumā jāiekļauj dokumenti šādā secībā:
- 5.5.1 Titullapa ar nosaukumu „Pieteikums slēgtam konkursam Nr. SM 2014/15 TEN-T ”Rail Baltica dzelzceļa līnijas intermodālā kravu loģistikas centra Latvijā darbības plāna un tehnisko risinājumu izstrāde” un Kandidāta nosaukums, reģistrācijas nr., tālrunis, fakss, Kandidāta kontaktpersonas vārds, uzvārds un e-pasts.
- 5.5.2 Satura rādītājs ar lapu numerāciju.
- 5.5.3 Kandidātu atlases dokumenti atbilstoši nolikuma 8.punkta prasībām.
- 5.6 Pieteikuma dokumentiem, jābūt cauršūtiem (caurauklotiem) tā, lai pieteikuma lapas nebūtu iespējams atdalīt, lapām jābūt numurētām. Uz pēdējās lapas auklu gali jānostiprina ar uzlīmi, uz uzlīmes jābūt norādītam lapu skaitam, datumam, kandidātu pārstāvēt tiesīgās personas vārds, uzvārds un paraksts.
- 5.7 Oriģināla un kopiju eksemplāros iekļautās informācijas nesakrītību gadījumā priekšroka ir oriģināla eksemplārā iekļautajai informācijai.
- 5.8 Pieteikuma dokumentiem jābūt latviešu valodā, ja vien konkrēto dokumentu nav atļauts iesniegt citā valodā. Ārvalstu institūciju izdotie apliecinājumu dokumenti var būt svešvalodā, tiem ir jāpievieno apliecināts tulkojums latviešu valodā saskaņā ar 2000.

gada 22. augusta Ministru kabineta noteikumos Nr.291 „Kārtība, kādā apliecināmi dokumentu tulkojumi valsts valodā” noteikto kārtību.

- 5.9 Kandidāts apliecina iesniegto dokumentu kopiju pareizību atbilstoši Dokumentu juridiskā spēka likuma un Ministru kabineta 2010. gada 28. septembra noteikumu Nr.916 „Dokumentu izstrādāšanas un noformēšanas kārtība” prasībām vai saskaņā ar Publisko iepirkumu likuma 33.panta septīto daļu apliecina visu iesniegto dokumentu atvasinājumu un tulkojumu pareizību ar vienu apliecinājumu, ja viss pieteikums ir cauršūts vai caurauklots.
- 5.10 Pieteikuma dokumentos nedrīkst būt dzēsumi, aizkrāsojumi, neatrunāti labojumi, svītrojumi un papildinājumi, dokumentiem jābūt skaidri salasāmiem. Ja pieteikumā iekļautajos dokumentos ir izdarīti labojumi, tiem jābūt ar pilnvarotās personas parakstu apstiprinātiem.
- 5.11 Kandidāta pieteikums dalībai slēgtā konkursā (saskaņā ar Pielikumā Nr.1 noteikto formu), kā arī pārējos pieteikuma dokumentus, kur tas ir nepieciešams, jāparaksta kandidāta pārstāvim ar pārstāvības tiesībām vai tā pilnvarotai personai. Ja kandidāts ir personu apvienība jebkurā to kombinācijā, kandidāta pieteikums dalībai slēgtā konkursā (saskaņā ar Pielikumā Nr.1 noteikto formu) jāparaksta katras personas, kas iekļauta personas apvienībā, pārstāvim ar pārstāvības tiesībām vai tā pilnvarotai personai. Gadījumā, ja pieteikumu paraksta pilnvarotās personas, pieteikumam pievieno pilnvaras oriģinālus vai apliecinātas kopijas.
- 5.12 Kandidāts sedz visus izdevumus, kas saistīti ar pieteikuma sagatavošanu un iesniegšanu. Pasūtītājs nav atbildīgs, nesedz un nekompensē šos izdevumus neatkarīgi no iepirkuma procedūras norises un rezultāta.

6. Informācijas apmaiņas kārtība, papildu informācijas sniegšana un nolikuma saņemšana

- 6.1. Ar nolikumu var iepazīties un to saņemt Satiksmes ministrijā, Dzelzceļa departamentā, 504. telpā, Gogoļa ielā 3, Rīgā, LV-1743, kā arī Pasūtītāja mājas lapā <http://www.sam.gov.lv> sadaļā „Publiskie iepirkumi”.
- 6.2. Informācijas apmaiņa starp Pasūtītāju, ieinteresētajiem piegādātājiem un kandidātiem notiek rakstveidā pa pastu, elektronisko pastu, faksu vai iesniedzot personīgi.
- 6.3. Ieinteresētie piegādātāji var pieprasīt papildus informāciju par nolikumā iekļautajām prasībām attiecībā uz pieteikumu sagatavošanu un iesniegšanu vai kandidātu atlasi. Ja informācija pieprasīta savlaicīgi, iepirkuma komisija papildus informāciju sniedz iespējami īsā laikā pēc pieprasījuma saņemšanas, bet ne vēlāk kā četras dienas pirms pieteikumu iesniegšanas termiņa beigām.
- 6.4. Papildus informāciju Iepirkuma komisija nosūta ieinteresētajam piegādātājam, kas uzdevis jautājumu un publicē Pasūtītāja mājas lapā <http://www.sam.gov.lv> sadaļā „Publiskie iepirkumi” pie attiecīgā iepirkuma nolikuma.
- 6.5. Lejupielādējot kandidātu atlases nolikumu, ieinteresētais piegādātājs uzņemas atbildību sekot līdž iepirkuma komisijas sniegtajai papildu informācijai, kas tiek publicēta pasūtītāja mājas lapā <http://www.sam.gov.lv> sadaļā „Publiskie iepirkumi” pie attiecīgā iepirkuma nolikuma.

7. Kandidāta atlases prasības

7.1 Vispārējie nosacījumi kandidāta dalībai konkursā

- 7.1.1 Pasūtītājs izslēdz kandidātu no dalības iepirkuma procedūrā jebkurā no šādiem gadījumiem:

- 7.1.1.1 kandidāts vai persona, kura ir kandidāta valdes vai padomes loceklis vai prokūrists, vai persona, kura ir pilnvarota pārstāvēt kandidātu darbībās, kas saistītas ar filiāli, ar tādu prokurora priekšrakstu par sodu vai tiesas spriedumu, kas stāties spēkā un kļuvis neapstrīdams un nepārsūdzams, ir atzīta par vainīgu jebkurā no šādiem noziedzīgiem nodarījumiem:
- a) kukuļņemšana, kukuļdošana, kukuļa piesavināšanās, starpniecība kukuļošanā, neatļauta labumu pieņemšana vai komerciāla uzpirkšana,
 - b) krāpšana, piesavināšanās vai noziedzīgi iegūtu līdzekļu legalizēšana,
 - c) izvairīšanās no nodokļu un tiem pielīdzināto maksājumu nomaksas,
 - d) terorisms, terorisma finansēšana, aicinājums uz terorismu, terorisma draudi vai personas vervēšana un apmācīšana terora aktu veikšanai;
- 7.1.1.2 kandidāts ar tādu kompetentas institūcijas lēmumu vai tiesas spriedumu, kas stāties spēkā un kļuvis neapstrīdams un nepārsūdzams, ir atzīts par vainīgu pārkāpumā, kas izpaužas kā:
- a) viena vai vairāku tādu valstu pilsoņu vai pavalstnieku nodarbināšana, kuri nav Eiropas Savienības dalībvalstu pilsoņi vai pavalstnieki, ja tie Eiropas Savienības dalībvalstu teritorijā uzturas nelikumīgi,
 - b) personas nodarbināšana bez rakstveidā noslēgta darba līguma, nodokļu normatīvajos aktos noteiktajā termiņā neiesniedzot par šo personu informatīvo deklarāciju par darba ņēmējiem, kas iesniedzama par personām, kuras uzsāk darbu;
- 7.1.1.3 kandidāts ar tādu kompetentas institūcijas lēmumu vai tiesas spriedumu, kas stāties spēkā un kļuvis neapstrīdams un nepārsūdzams, ir atzīts par vainīgu konkurences tiesību pārkāpumā, kas izpaužas kā vertikālā vienošanās, kuras mērķis ir ierobežot pircēja iespēju noteikt tālākpārdošanas cenu, vai horizontālā kartela vienošanās, izņemot gadījumu, kad attiecīgā institūcija, konstatējot konkurences tiesību pārkāpumu, par sadarbību iecietības programmas ietvaros kandidātu ir atbrīvojusi no naudas soda vai naudas sodu samazinājusi;
- 7.1.1.4 ir pasludināts kandidāta maksātnespējas process, apturēta vai pārtraukta kandidāta saimnieciskā darbība, uzsākta tiesvedība par kandidāta bankrotu vai kandidāts tiek likvidēts;
- 7.1.1.5 kandidātam Latvijā vai valstī, kurā tas reģistrēts vai kurā atrodas tā pastāvīgā dzīvesvieta, ir nodokļu parādi, tajā skaitā valsts sociālās apdrošināšanas obligāto iemaksu parādi, kas kopsummā kādā no valstīm pārsniedz 150 euro;
- 7.1.1.6 kandidāts ir sniedzis nepatiesu informāciju, lai apliecinātu atbilstību Publisko iepirkumu likuma 39.¹ panta noteikumiem vai saskaņā ar Publisko iepirkumu likumu noteiktajām kandidātu kvalifikācijas prasībām, vai vispār nav sniedzis pieprasīto informāciju.
- 7.1.2 Pasūtītājs izslēdz kandidātu no dalības iepirkuma procedūrā, ja uz personālsabiedrības biedru, ja kandidāts ir personālsabiedrība, ir attiecināms kāds no nolikuma 7.1.1.1. – 7.1.1.6.punktos minētajiem nosacījumiem.
- 7.1.3 Pasūtītājs izslēdz kandidātu no dalības iepirkuma procedūrā, ja uz kandidāta norādīto personu, uz kuras iespējām kandidāts balstās, lai apliecinātu, ka tā kvalifikācija atbilst nolikumā noteiktajām prasībām, ir attiecināms kāds no nolikuma 7.1.1.2. – 7.1.1.6.punkta minētajiem nosacījumiem.

- 7.1.4 Ja kandidāta, vai personālsabiedrības biedra, ja kandidāts ir personālsabiedrība, vai kandidāta norādītajai personai, uz kuras iespējām kandidāts balstās, lai apliecinātu, ka tā kvalifikācija atbilst nolikumā noteiktajām, maksātnespējas procesā tiek piemērota sanācija vai cits līdzīga veida pasākumu kopums, kas vērsts uz parādnieka iespējamā bankrota novēršanu un maksātnespējas atjaunošanu, Pasūtītājs, izvērtējot iespējamos ekonomiskos riskus un ņemot vērā līguma priekšmetu, var lemt par nolikuma 7.1.1.4.punkta nepiemērošanu.
- 7.1.5 Pasūtītājs neizslēdz kandidātu no dalības iepirkuma procedūrā, ja:
- 7.1.5.1. No dienas, kad kļuvis neapstrīdams un nepārsūdzams tiesas spriedums, prokurora priekšraksts par sodu vai citas kompetentas institūcijas pieņemtais lēmums saistībā ar nolikuma 7.1.1.1.punktā un 7.1.1.2.punkta "a" apakšpunktā minētajiem pārkāpumiem, līdz pieteikuma iesniegšanas dienai ir pagājuši trīs gadi;
- 7.1.5.2. No dienas, kad kļuvis neapstrīdams un nepārsūdzams tiesas spriedums vai citas kompetentas institūcijas pieņemtais lēmums saistībā ar nolikuma 7.1.1.2.punkta "b" apakšpunktā un 7.1.1.3.punktā minētajiem pārkāpumiem, līdz pieteikuma iesniegšanas dienai ir pagājuši 12 mēneši.
- 7.1.6 Pasūtītājs paredz tiesības izslēgt kandidātu no turpmākas dalības slēgtā konkursā, ja kandidāts (kā līgumslēdzēja puse vai līgumslēdzējas puses dalībnieks vai biedrs, ja līgumslēdzēja puse ir bijusi piegādātāju apvienība vai personālsabiedrība), tā dalībnieks vai biedrs (ja kandidāts ir piegādātāju apvienība vai personālsabiedrība) nav pildījis ar Pasūtītāju noslēgtu iepirkuma līgumu vai vispārīgo vienošanos un tādēļ Pasūtītājs ir izmantojis iepirkuma līgumā vai vispārīgās vienošanās noteikumos paredzētās tiesības vienpusēji atkāpties no iepirkuma līguma vai vispārīgās vienošanās. Pasūtītājs, pieņemot lēmumu par kandidāta izslēgšanu no turpmākās dalības iepirkuma procedūrā, ņem vērā, cik būtisks ir pārkāpums, kas pieļauts tā iepirkuma līguma vai vispārīgās vienošanās izpildē, no kā Pasūtītājs vienpusēji atkāpies, kā arī šīs iepirkuma procedūras rezultātā slēdzamā iepirkuma līguma neizpildes risku.
- 7.1.7 Pasūtītājs paredz tiesības neizslēgt kandidātu no turpmākās dalības slēgtā konkursā saskaņā ar nolikuma 7.1.6.punktu, tā vietā paredzot papildu saistību izpildes nodrošinājumu (piemēram, bankas garantija vai apdrošināšana par noteiktu naudas summu) vai tādus noteikumus, kas kandidātam padara ekonomiski neizdevīgu iepirkuma līguma būtisku noteikumu neievērošanu.
- 7.1.8 Nolikuma 7.1.6. un 7.1.7.punkta noteikumus Pasūtītājs nepiemēro, ja no dienas, kad Pasūtītājs vienpusēji atkāpies no 7.1.6.punktā minētā iepirkuma līguma vai vispārīgās vienošanās, līdz pieteikuma iesniegšanas dienai ir pagājuši 12 mēneši publiska piegādes vai pakalpojumu līguma gadījumā un trīs gadi publiska būvdarbu līguma gadījumā.

7.2 Prasības attiecībā uz kandidāta iespējām veikt profesionālo darbību

Kandidāts ir reģistrēts atbilstoši Latvijas Republikas vai attiecīgās ārvalsts normatīvo aktu prasībām, lai veiktu saimniecisko darbību. Pretendentam, kas tiks atzīts par uzvarētāju un tas nebūs reģistrējies savu darbību saimnieciskās darbības veikšanai, būs jāreģistrējas kā saimnieciskās darbības veicējam vai komersantam iepirkuma līguma noslēgšanai 30 dienu laikā no paziņojuma par iepirkuma līguma slēgšanas tiesību piešķiršanu saņemšanas dienas.

7.3 Prasības attiecībā uz kandidāta saimniecisko un finansiālo stāvokli

Kandidāta gada vidējais finanšu apgrozījums pēdējo 3 (trīs) gadu (2011., 2012., 2013.) laikā ir ne mazāks kā 500 000 EUR. Ja kandidāts ir dibināts vai uzsācis darbību 2011. gada 1. janvārī un vēlāk, tad šajā punktā minētā prasība attiecas uz kandidāta faktisko darbības periodu.

7.4 Prasības attiecībā uz kandidāta tehniskajām un profesionālajām spējām

7.4.1. Kandidāts vai visi personu apvienības dalībnieki kopā, ja kandidāts ir personu apvienība, pēdējo 3 (trīs) gadu laikā ir īstenojis vismaz 3 (trīs) līdzvērtīgus līgumus (pabeigti līgumi), un vismaz viens no personu apvienības dalībniekiem, ja kandidāts ir personu apvienība, pēdējo 3 (trīs) gadu laikā ir īstenojis vismaz 2 (divus) līdzvērtīgus līgumus (pabeigti līgumi). Par līdzvērtīgiem līgumiem tiks uzskatīti līgumi, kuru ietvaros kopā vai atsevišķi veikti šādi darbi¹:

7.4.1.1. izstrādāts ģenerālplāns² vai veikta priekšizpēte (t.sk. sagatavoti tehniskie risinājumi fāzē pirms būvprojektēšanas uzsākšanas) loģistikas centram³ vai ostai ar vismaz 100 (simts) tūkstoši TEU konteineru kravu plānoto apstrādes jaudu vai vismaz 2 (diviem) miljoniem tonnu bruto kravu apgrozību un ietverot sauszemes transporta risinājumus autotransportam un dzelzceļam;

7.4.1.2. izstrādāts ģenerālplāns vai veikta priekšizpēte (t.sk. sagatavoti tehniskie risinājumi pirms būvprojektēšanas uzsākšanas) intermodālam dzelzceļa transporta terminālam⁴ ar 7.4.1.1.punktā minētajiem raksturlielumiem, kas nodrošina kravu pārkraušanu starp dzelzceļa transportu un autotransportu.

7.4.2. Kandidāts iepirkuma līguma izpildē spēj piesaistīt šādus turpmāk uzskaitītos galvenos speciālistus (katrai pozīcijai viens galvenais speciālists), kas atbilst vismaz šādām minimālajām prasībām (jāņem vērā, ka par atbilstošiem tiks atzīti tikai tādi speciālisti, kuriem pieredze norādīta par pabeigtiem projektiem, izņemot, ja kādā nolikuma punktā noteikts citādi, turklāt kandidātam jānodrošina arī citu speciālistu un administratīvā personāla piesaiste, ja tas ir nepieciešams uzdevumu kvalitatīvai izpildei):

7.4.2.1. Projekta vadītājs, kuram ir:

7.4.2.1.1. Augstākā izglītība transporta sistēmu / loģistikas inženierijā vai ekonomikā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);

7.4.2.1.2. Vismaz 3 (trīs) vadīti pētījumi vai projekti⁵ transporta / loģistikas nozarē pēdējo 3 (trīs) gadu laikā;

7.4.2.1.3. Pieredze starptautisku un starpnozaru projekta komandu vadībā vismaz 3 (trīs) projektos pēdējo 3 (trīs) gadu laikā;

7.4.2.1.4. Pieredze vismaz 1 (vienas) ostas vai sausās ostas, vai loģistikas centra (ar vismaz 100 (simts) tūkstoši TEU konteineru kravu plānoto apstrādes jaudu vai vismaz 2 (diviem) miljoniem tonnu bruto kravu apgrozību) priekšizpētē vai attīstības plānu

¹ Piemēram, intermodālais dzelzceļa transporta terminālis var būt atsevišķs objekts vai loģistikas centra sastāvdaļa.

² Piemēram, kā detālplānojums teritorijai un ilgtermiņa attīstības programma vismaz desmit gadu perspektīvai vai kā ilgtermiņa biznesa plāns ar teritorijas risinājumiem.

³ Ar loģistikas centru šeit un turpmāk tekstā saprot - vienotu teritoriju, kura ietver transporta terminālu un citu tehnisko un administratīvo infrastruktūru, kas paredzēta neatkarīgām kompānijām, kas nodarbojas ar kravu transportēšanu (piemēram, ekspeditori, kravu nosūtītāji, pārvadātāji) un apkalpošanu (piemēram, uzglabāšanu, konsolidāciju, distribūciju, muitu).

⁴ Ar intermodālo dzelzceļa transporta terminālu šeit un turpmāk tekstā saprot - vietu, kas iekārtota intermodālo transporta iekārtu (ITU) pārsūtīšanai (arī pārkraušanai) un glabāšanai starplaikos, kad nenotiek pāreja uz citu transporta veidu, no kuriem viens ir dzelzceļš.

⁵ Ar pētījumiem vai projektiem šeit tiek saprastas transporta nozares vai tirgus izpētes vismaz nacionālā vai starptautiskā līmenī, izpētes vai izpētes projekti, kas saistīti ar liela mēroga transporta infrastruktūras attīstību vai transporta sistēmu risinājumiem.

izstrādē vai izveidē pēdējo 3 (trīs) gadu laikā;

- 7.4.2.1.5. Pieredze vismaz 1 (viena) izpētes projekta vadībā, kura ietvaros veikta loģistikas centra un/vai industriālā parka⁶, un/vai intermodāla dzelzceļa transporta termināla izveides juridiskā un finanšu analīze Eiropas Savienības dalībvalstīs.

7.4.2.2. Transporta ekonomists / transporta sistēmu speciālists (analītiķis), kuram ir:

- 7.4.2.2.1. Ekonomista kvalifikācija transporta organizēšanā vai augstākā izglītība transporta sistēmu inženierijā, vai augstākā izglītība transporta plānošanā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);
- 7.4.2.2.2. Vismaz 5 (piecu) projektu pieredze transporta un/vai loģistikas nozarēs – dalība pētījumos, izpētēs, priekšizpētēs - pēdējo 3 (trīs) gadu laikā;
- 7.4.2.2.3. Pieredze vismaz 3 (trīs) starptautiska mēroga (t.i. aptverot vismaz 3 (trīs) valstis) vai nacionāla mēroga (aptverot 1 (vienu) valsti, kuras iedzīvotāju skaits ir vismaz 8 (astoņi) miljoni) transporta un satiksmes prognožu sagatavošanā pēdējo 3 (trīs) gadu laikā;
- 7.4.2.2.4. Pieredze kā vadošajam ekspertam vai pētniekam starptautisko transporta plūsmu izpētē Eiropas Savienībā (t.sk. Baltijas valstīs) un Neatkarīgo valstu sadraudzības reģionā, vismaz 1 (viena) izpēte pēdējo 3 (trīs) gadu laikā;
- 7.4.2.2.5. Pieredze vismaz 2 (divu) globālo loģistikas ķēžu⁷ izpētē un analīzē pēdējo 3 (trīs) gadu laikā;
- 7.4.2.2.6. Pieredze kravas transporta plūsmu modeļu izstrādē un pielietošanā kravu plūsmu modelēšanā un prognozēšanā, vismaz 3 (trīs) modeļu izstrāde pēdējo 3 (trīs) gadu laikā;
- 7.4.2.2.7. Pieredze transporta sistēmu ar intermodālu dzelzceļa transporta terminālu projektēšanā vai plānošanā, vismaz 1 (viens) projekts pēdējo 3 (trīs) gadu laikā.

7.4.2.3. Sociologs, kuram ir vismaz:

- 7.4.2.3.1. Maģistra grāds socioloģijā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);
- 7.4.2.3.2. Pieredze kā vadošajam ekspertam/pētniekam vismaz 5 (piecos) transporta socioloģijas pētījumos pēdējo 3 (trīs) gadu laikā;
- 7.4.2.3.3. Pieredze kā vadošajam ekspertam/pētniekam starptautisko / globālo loģistikas ķēžu dalībnieku intervēšanā vai aptaujāšanā klātienē vismaz 1 (vienā) izpētes projektā pēdējo 3 (trīs) gadu laikā;
- 7.4.2.3.4. Pieredze augsta līmeņa vadītāju klātienē interviju sagatavošanā un intervijas veikšanā vismaz 3 (trīs) izpētes projektu vai socioloģisku vai ekonomisku pētījumu ietvaros pēdējo 3 (trīs) gadu laikā;

⁶ Ar industriālo parku šeit un turpmāk tekstā saprot - nošķirtu teritoriju, kurā tiek nodrošināta moderna infrastruktūra un biznesa pakalpojumi, lai sekmētu dažādu uzņēmējdarbības veidu, ārvalstu un vietējo uzņēmumu piesaisti un jaunu rašanos.

⁷ Ar globālu loģistikas ķēdi šeit un turpmāk tekstā saprot - secīgu loģistikas sistēmas posmu kopumu noteiktai izejvielu vai produktu grupai vai grupām no materiālo resursu piegādātāja līdz gatavās produkcijas gala patērētājam, kas šķērso atsevišķus pasaules reģionus.

7.4.2.4. Ekonomists, kuram ir vismaz:

- 7.4.2.4.1. Maģistra grāds transporta ekonomikā vai ekonomikā, vai finansēs, vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);
- 7.4.2.4.2. 5 (piecu) izpētes projektu pieredze transporta sistēmu izpētē un analīzē pēdējo 3 (trīs) gadu laikā;
- 7.4.2.4.3. 2 (divu) projektu pieredze loģistikas centru vai intermodālu dzelzceļa transporta terminālu tehniski ekonomisko pamatojumu vai biznesa plānu, vai ieguvumu un izdevumu analīzes izstrādē pēdējo 3 (trīs) gadu laikā;
- 7.4.2.4.4. Pieredze TEN-T finansējuma piesaistē⁸ transporta infrastruktūras projektiem, vismaz 1 (viens) projekts pēdējo 3 (trīs) gadu laikā;
- 7.4.2.4.5. Pieredze KF finansējuma piesaistē transporta infrastruktūras projektiem, vismaz 1 (viens) projekts pēdējo 3 (trīs) gadu laikā.

7.4.2.5. Publiskās un privātās partnerības (PPP) speciālists – jurists, kuram ir vismaz:

- 7.4.2.5.1. Maģistra grāds tiesību zinātnē vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);
- 7.4.2.5.2. Pieredze pēdējo 3 (trīs) gadu laikā vismaz 3 (trīs) izpētes projektos, kuros ietverti uzdevumi, kas saistīti ar normatīvo aktu piemērošanu PPP jomā;
- 7.4.2.5.3. Pieredze pēdējo 3 (trīs) gadu laikā vadošā eksperta lomā vismaz 3 (trīs) publiskās un privātās partnerības projektu sagatavošanā, t.i., konsultācijas PPP modeļa izvēlē un dokumentācijas izstrādē (PPP konkursa nolikums, PPP līgums), no kuriem vismaz 1 (viens) projekts ir transporta un loģistikas nozarē;
- 7.4.2.5.4. Dalības pieredze vismaz 1 (viena) PPP konkursa piedāvājuma sagatavošanā pēdējo 3 (trīs) gadu laikā;
- 7.4.2.5.5. Pieredze projekta ieviešanas konsultanta vai PPP projekta privātā partnera atbildīgā darbinieka pienākumu izpildē vismaz 1 (viena) PPP līguma realizācijā pēdējo 3 (trīs) gadu laikā.

7.4.2.6. Publiskās un privātās partnerības speciālists – ekonomists, kuram ir vismaz:

- 7.4.2.6.1. Maģistra grāds ekonomikā vai finansēs, vai vadības zinātnēs vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);
- 7.4.2.6.2. Pieredze pēdējo 3 (trīs) gadu laikā vadošā eksperta lomā vismaz 3 (trīs) publiskās un privātās partnerības projektu sagatavošanā, t.i., dalība finanšu un ekonomisko aprēķinu izstrādē, no kuriem vismaz 1 (viens) projekts ir transporta un loģistikas nozarē;
- 7.4.2.6.3. Dalības pieredze vismaz 1 (viena) PPP konkursa piedāvājuma sagatavošanā pēdējo 3 (trīs) gadu laikā;

⁸ Ar finansējuma piesaisti šeit un turpmāk tekstā saprot - pieredzi projekta iesniegumu sagatavošanā (projekta iesniegumi, kuriem piešķirts finansējums), projektu iesniegumu vērtēšanā, projektu ieviešanā vai ieviešanas uzraudzībā.

7.4.2.6.4. Pieredze projekta ieviešanas konsultanta vai ekonomista, vai PPP projekta privātā partnera atbildīgā darbinieka pienākumu izpildē vismaz 1 (viena) PPP līguma realizācijā pēdējo 3 (trīs) gadu laikā.

7.4.2.7. Speciālists dzelzceļa staciju projektēšanā 1435mm tīklā, kuram ir vismaz:

7.4.2.7.1. Augstākā izglītība būvniecībā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);

7.4.2.7.2. Būvprakses sertifikāts vai līdzvērtīgas patstāvīgas prakses tiesības kādā no Eiropas Savienības dalībvalstīm dzelzceļa staciju projektēšanā;

7.4.2.7.3. Pieredze vismaz 1 (vienas) dzelzceļa kravas stacijas projektēšanā (jaunbūve un/vai rekonstrukcija) pēdējo 3 (trīs) gadu laikā;

7.4.2.7.4. Pieredze vismaz 1 (viena) dzelzceļa transporta intermodālā termināla projektēšanā pēdējo 3 (trīs) gadu laikā;

7.4.2.7.5. Pieredze 1435 mm standarta dzelzceļa tīkla infrastruktūras projektēšanā un Eiropas Savienības savstarpējās izmantojamības standartu pielietošanā vismaz 1 (viena) būvprojektēšanas pakalpojuma ietvaros pēdējo 3 (trīs) gadu laikā.

7.4.2.8. Speciālists dzelzceļa staciju projektēšanā 1520 mm tīklā, kuram ir vismaz:

7.4.2.8.1. Augstākā izglītība būvniecībā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);

7.4.2.8.2. Būvprakses sertifikāts dzelzceļa staciju projektēšanā vai līdzvērtīgas patstāvīgas prakses tiesības kādā no Eiropas Savienības dalībvalstīm dzelzceļa staciju projektēšanā;

7.4.2.8.3. Pieredze vismaz 1 (vienas) dzelzceļa kravas stacijas projektēšanā (jaunbūve un/vai rekonstrukcija) pēdējo 3 (trīs) gadu laikā;

7.4.2.8.4. Pieredze 1520 mm standarta dzelzceļa tīkla infrastruktūras projektēšanā un Eiropas Savienības savstarpējās izmantojamības standartu pielietošanā vismaz 1 (viena) būvprojektēšanas pakalpojuma ietvaros pēdējo 3 (trīs) gadu laikā.

7.4.2.9. Speciālists intermodālu dzelzceļa transporta terminālu modelēšanā, kuram ir:

7.4.2.9.1. Augstākā izglītība inženierzinātnēs vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);

7.4.2.9.2. Pieredze vismaz 2 (divu) intermodālu dzelzceļa transporta terminālu darbības modelēšanā un / vai plānošanā pēdējo 3 (trīs) gadu laikā;

7.4.2.9.3. Zināšanas par IT sistēmām un IT risinājumiem loģistikas centriem, dalība kā projekta komandas loceklim vismaz 1 (viena) IT projekta ieviešanā pēdējo 3 (trīs) gadu laikā;

7.4.2.10. Autoceļu projektētājs, kuram ir vismaz:

7.4.2.10.1. Augstākā izglītība būvniecībā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);

7.4.2.10.2. Būvprakses sertifikāts autoceļu projektēšanā, būvdarbu vadīšanā un būvuzraudzībā vai līdzvērtīgas patstāvīgas prakses tiesības kādā no Eiropas Savienības dalībvalstīm autoceļu projektēšanā;

- 7.4.2.10.3. Pieredze kā atbildīgajam projektētājam autoceļu projektēšanā, kur kravas automašīnu gada vidējā diennakts satiksmes intensitāte pārsniedz 500 (pieci simti) vienības, vismaz 2 (divi) būvprojekti pēdējo 3 (trīs) gadu laikā;
- 7.4.2.10.4. Pieredze vismaz 1 (viena) intermodāla dzelzceļa transporta termināla vai loģistikas centru pievedceļu un iekšējo autoceļu projektēšanā pēdējo 3 (trīs) gadu laikā.
- 7.4.2.11. Ēku konstrukciju būvinženieris, kuram ir vismaz:
- 7.4.2.11.1. Augstākā izglītība būvniecībā vai līdzvērtīga izglītība, kas iegūta ārvalstīs (šajā gadījumā iesniedzot dokumentus vai paskaidrojumu, kas pierāda, ka iegūtā izglītība ir līdzvērtīga nolikumā izvirzītajām prasībām);
- 7.4.2.11.2. Sertifikāts ēku konstrukciju projektēšanā vai līdzvērtīgas patstāvīgas prakses tiesības kādā no Eiropas Savienības dalībvalstīm ēku konstrukciju projektēšanā;
- 7.4.2.11.3. Pieredze loģistikas centru ēku vai līdzvērtīgu ražošanas ēku⁹ projektēšanā vismaz 2 (divas) ēkas katra ar kopējo platību vismaz 10000 m² pēdējo 3 (trīs) gadu laikā.
- 7.4.3. Nolikuma 7.4.2.punkta apakšpunktos norādītajiem speciālistiem jāspēj komunicēt ar Pasūtītāju latviešu vai angļu valodā, vai arī pretendents nodrošina tulkošanas pakalpojumus no valodas, kurā komunicē speciālists, uz latviešu valodu.
- 7.4.4. Nolikuma 7.4.2.4. un 7.4.2.6.punktos, 7.4.2.7. un 7.4.2.8., 7.4.2.10.punktos, 7.4.2.5. un 7.4.2.6.punktos minēto speciālistu funkciju var pildīt viens speciālists, ja tam ir izglītība un pieredze, kas aptver attiecīgajos punktos noteiktās prasības. Nav atļauts vienai personai pildīt 7.4.2.4., 7.4.2.5. un 7.4.2.6.punktos minēto speciālistu funkcijas.

8. Iesniedzamie Kandidātu atlases dokumenti

- 8.1. Kandidāta pieteikums dalībai slēgtā konkursā (saskaņā ar Pielikumā Nr.1 noteikto formu).
- 8.2. Pilnvara (oriģināls vai apliecināta kopija), kas apliecina pilnvarotās personas tiesības parakstīt pieteikumu un/vai tajā iekļautos dokumentus, ja pieteikumu un/vai dokumentus paraksta pilnvarota persona.
- 8.3. Attiecībā uz ārvalstī reģistrētu (ārvalstī atrodas pastāvīgā dzīvesvieta) kandidātu – komercdarbību reģistrējošas iestādes ārvalstī, kur kandidāts reģistrēts, izdotas un spēkā esošas reģistrācijas apliecības vai cita līdzvērtīga dokumenta kopija.
- 8.4. Kandidāta izdota izziņa par gada vidējo finanšu apgrozījumu pēdējo 3 (trīs) gadu (2011., 2012., 2013.) laikā, norādot atsevišķi arī katra gada finanšu apgrozījumu. Ja kandidāts ir dibināts vai uzsācis darbību pēc 2011. gada 1. janvāra un vēlāk, tad kandidāts izdod izziņu par kandidāta gada vidējo finanšu apgrozījumu par tā faktisko darbības periodu.
- 8.5. Kandidāta pēdējo 3 (trīs) gadu laikā īstenoto vismaz 3 (trīs) līdzvērtīgo līgumu saraksts (saskaņā ar Pielikumā Nr.2 „Kandidāta pieredzes saraksts” noteikto formu), kurā sniegta informācija par kandidāta pieredzi atbilstoši 7.4.1.punktam. Pieredzes sarakstam jāpievieno pasūtītāja atsauksme par katru no sarakstā norādītajiem līdzvērtīgajiem līgumiem. Atsauksmē jānorāda kandidāta veiktais darbu apjoms un saturs, darbu

⁹ Ar līdzvērtīgām ražošanas ēkām šeit un turpmāk tekstā saprot – ražošanas uzņēmumu noliktavu ēkas vismaz 10000 m² platībā ar autoceļu vai dzelzceļu pieslēgumiem, t.sk. atklātas vai slēgtas rampas.

izpildes novērtējums (termiņi un kvalitāte), pasūtītāja par pakalpojuma izpildi atbildīgā kontaktpersona, amats un kontaktinformācija (tālrunis un e-pasts).

- 8.6. Kandidāta piesaistīto speciālistu saraksts atbilstoši Pielikuma Nr.3 formai.
- 8.7. Kandidāta piesaistīto speciālistu pašrocīgi parakstīti CV atbilstoši Pielikumā Nr.4 norādītajai formai un sertifikātu, izglītības apliecinājošo dokumentu apliecinātas kopijas, ja ir izvirzītas prasības attiecībā uz speciālista kvalifikāciju un/vai izglītību.
- 8.8. Kandidāta speciālistu pieredzes apraksts atbilstoši Pielikumā Nr.5 norādītajai formai.
- 8.9. Kandidāta pieredzes apraksts atbilstoši Pielikumā Nr.6 norādītajai formai.
- 8.10. Ja pieteikumu iesniedz personu apvienība, pieteikumam pievieno visu personu apvienības dalībnieku parakstītu vienošanos par dalību slēgtā konkursā, kurā norādīts apvienības dalībnieku atbildības sadalījums un kopīga apņemšanās izpildīt iepirkuma līgumu, kā arī kurā nosaukts galvenais dalībnieks, kurš ir pilnvarots parakstīt pieteikumu un citus dokumentus, saņemt un izdot rīkojumus grupas dalībnieku vārdā, un ar kuru notiks visi maksājumi
- 8.11. Gadījumā, ja kandidāts balstās uz apakšuzņēmēja iespējām, lai apliecinātu, ka tā kvalifikācija atbilst nolikuma 7.3. vai 7.4.punkta prasībām - apakšuzņēmēja parakstīts dokuments (apliecinājums vai vienošanās), kas norāda uz apakšuzņēmēja plānotajām saistībām attiecībā uz iepirkuma līguma izpildi. Detalizēts pārējo piesaistīto iepirkuma līguma izpildei apakšuzņēmēju saraksts un to parakstīti dokumenti, kas apliecinās attiecīgo apakšuzņēmēju iesaisti un izpildāmo darbu daļu, būs jāiesniedz slēgtā konkursa otrajā kārtā kopā ar piedāvājumu
- 8.12. Kandidāta izpratnes apraksts latviešu vai angļu valodā, kurā kandidāts sniedz izpratnes aprakstu par sniedzamo pakalpojumu, tā izpildes metodēm un to piemērotību, pakalpojuma izpildē analizējamo ārvalstu praksi, pakalpojuma izpildē galvenajiem speciālistiem, to pieredzi, informāciju par papildus speciālistiem un atbalsta personālu (turpmāk – pārējiem speciālistiem), kas tiks iesaistīts pakalpojuma izpildē, par indikatīvajām plānotajām cilvēkdienām katram no iesaistāmajiem speciālistiem (gan galvenajiem speciālistiem, gan pārējiem speciālistiem), kā arī informāciju par to, kādos jautājumos plānots piesaistīt apakšuzņēmējus.

9. Pieteikumu vērtēšanas kārtība

9.1. Kandidātu atlases dokumentu pārbaude

- 9.1.1. Iepirkuma komisija novērtē, vai kandidāts ir iesniedzis visus nolikuma 8.punktā pieprasītos dokumentus un to atbilstību nolikuma 7.punktā noteiktajām atlases prasībām.
- 9.1.2. Ja pieteikums atbilst nolikuma 7.punktā noteiktajām atlases prasībām un kandidāts ir iesniedzis visus nolikuma 8.punktā pieprasītos dokumentus, iepirkuma komisija lemj par pieteikuma tālāk izskatīšanu.
- 9.1.3. Ja pieteikums neatbilst nolikuma 7.punktā noteiktajām atlases prasībām, iepirkuma komisija noraida kandidātu un tālāk nevērtē tā pieteikumu.
- 9.1.4. Ja kandidāts nav iesniedzis kādu nolikuma 8.punktā pieprasīto dokumentu, izņemot 8.10.punktā prasīto dokumentu, iepirkumu komisija izvērtē, vai attiecīgajā dokumentā norādāmā informācija nav pieejama publiskās datu bāzēs vai citā pieteikumā iesniegtajā dokumentā, vai precizējama un skaidrojama saskaņā ar Publisko iepirkumu

likuma 45.pantu. Ja nepieciešamā informācija nav iegūstama atbilstoši šajā punktā norādītajam, iepirkumu komisija noraida kandidātu un tālāk nevērtē tā pieteikumu.

9.2. Pieteikumu vērtēšana

9.2.1. Iepirkuma komisija vērtē Kandidātu pieteikumus, piešķirot punktus, atbilstoši šādiem kritērijiem:

Nr.p. k.	Kritērijs	Maksimālais punktu skaits	Vērtēšanas metodika
1.	Kandidāta pieredze līdzvērtīgu (atbilstoši 7.4.1. apakšpunktos noteiktajam) līgumu izpildē pēdējo 10 (desmit) gadu laikā - objektu (intermodālie dzelzceļa termināli, loģistikas centri, ostas ar 7.4.1.1.punktā noteikto minimālo kravu apstrādes jaudu) skaits noteiktos reģionos.	20	Kandidāts saņem 20 punktus, ja tam ir līdzvērtīga līgumu pieredze vismaz 10 (desmit) objektos Eiropas Savienības vai Eiropas ekonomiskās zonas (EEZ) teritorijā. Kandidāts saņem 10 punktus, ja tam ir līdzvērtīga līgumu pieredze vismaz 5 (piecos) objektos Eiropas Savienības vai (EEZ) teritorijā.
2.	Kandidāta pieredze līdzvērtīgu (atbilstoši 7.4.1. apakšpunktos noteiktajam) līgumu izpildē pēdējo 10 (desmit) gadu laikā – objektu (intermodālie dzelzceļa termināli, loģistikas centri, ostas ar 7.4.1.1.punktā noteikto minimālo kravu apstrādes jaudu) skaits.	30	Kandidāts saņem 30 punktus, ja tam ir līdzvērtīga līgumu pieredze vismaz 15 (piecpadsmit) objektos. Kandidāts saņem 20 punktus, ja tam ir līdzvērtīga līgumu pieredze vismaz 10 (desmit) objektos. Kandidāts saņem 15 punktus, ja tam ir līdzvērtīga līgumu pieredze vismaz 5 (piecos) objektos.
3.	Kandidāta piedāvāto speciālistu (kas minēti 7.4.2.1., 7.4.2.2.punktos) profesionālās spējas transporta objektu plānošanā – objektu (intermodālie dzelzceļa termināli, loģistikas centri, ostas ar 7.4.1.1.punktā noteikto minimālo kravu apstrādes jaudu) skaits pēdējo 10	20	Kandidāts saņem 20 punktus, ja tā piesaistītajiem speciālistiem (7.4.2.1. un 7.4.2.2.punktos minētajiem) kopā ir pieredze vismaz 15 (piecpadsmit) objektu plānošanā. Kandidāts saņem 10 punktus, ja tā piesaistītajiem speciālistiem (7.4.2.1. un 7.4.2.2.punktos minētajiem) kopā ir pieredze vismaz 10 (desmit) objektu

Nr.p. k.	Kritērijs	Maksimālais punktu skaits	Vērtēšanas metodika
	(desmit) gadu laikā.		plānošanā. Kandidāts saņem 5 punktus, ja tā piesaistītajiem speciālistiem (7.4.2.1. un 7.4.2.2. punktos minētajiem) kopā ir pieredze vismaz 7 (septiņu) objektu plānošanā.
4.	Kandidāta piedāvāto galveno speciālistu (kas minēti 7.4.2.7., 7.4.2.8., 7.4.2.9., 7.4.2.10. punktos) profesionālās spējas transporta būvju plānošanā vai projektēšanā¹⁰ - objektu skaits pēdējo 10 (desmit) gadu laikā.	15	Kandidāts saņem 15 punktus, ja tā piesaistītajiem speciālistiem (kas minēti 7.4.2.7., 7.4.2.8., 7.4.2.9., 7.4.2.10. punktos) kopā ir pieredze vismaz 25 (divdesmit piecu) transporta būvju plānošanā vai projektēšanā. Kandidāts saņem 10 punktus, ja tā piesaistītajiem speciālistiem (kas minēti 7.4.2.7., 7.4.2.8., 7.4.2.9., 7.4.2.10. punktos) kopā ir pieredze vismaz 15 (piecpadsmit piecu) transporta būvju plānošanā vai projektēšanā. Kandidāts saņem 5 punktus, ja tā piesaistītajiem speciālistiem (kas minēti 7.4.2.7., 7.4.2.8., 7.4.2.9., 7.4.2.10. punktos) kopā ir pieredze vismaz 5 (piecu) transporta būvju plānošanā vai projektēšanā.
5.	Kandidāta piedāvāto speciālistu (kas minēti 7.4.2.5. un 7.4.2.6. punktos) profesionālās spējas publiskās un privātās partnerības jomā – objektu skaits pēdējo 10 (desmit) gadu laikā.	15	Kandidāts saņem 15 punktus, ja tā piesaistītajiem speciālistiem (7.4.2.5. un 7.4.2.6. punktos) kopā ir pieredze¹¹ vismaz 10 dažādos publiskās un privātās partnerības projektos. Kandidāts saņem 10 punktus, ja tā piesaistītajiem speciālistiem

¹⁰ Ar transporta būvēm šeit tiek saprastas gan dzelzceļa kravas stacijas, gan dzelzceļa intermodālie termināli, gan loģistikas centru transporta infrastruktūra.

¹¹ Kā atbilstošu pieredzi uzskatīs, ja speciālists piedalījies publiskās un privātās partnerības projekta izvērtēšanā vai ieviešanā kā ekonomists, finansists, publiskās un privātās partnerības speciālists, jurists, projekta vadītājs, finansējuma piesaistes eksperts.

Nr.p. k.	Kritērijs	Maksimālais punktu skaits	Vērtēšanas metodika
			(7.4.2.5. un 7.4.2.6. punktos) kopā ir pieredze ¹² vismaz 8 dažādos publiskās un privātās partnerības projektos. Kandidāts saņem 5 punktus, ja tā piesaistītajiem speciālistiem (7.4.2.5. un 7.4.2.6. punktos) kopā ir pieredze ¹³ vismaz 6 dažādos publiskās un privātās partnerības projektos.

- 9.2.2. Iepirkuma komisija rakstiski uzaicinās iesniegt tehnisko un finanšu piedāvājumus tos 5 (piecus) nolikuma prasībām atbilstošos kandidātus, kuri vērtēšanas rezultātā būs ieguvuši vislielāko punktu skaitu. Ja diviem vai vairākiem kandidātiem būs vienāds punktu skaits, lai iekļūtu uzaicināto skaitā, iepirkumu komisija izvēlēsies to/tos kandidātu, kuram būs lielāks unikālo objektu skaits, kas norādīts Kandidāta pieredzes aprakstā atbilstoši 9.2.1.punkta prasībām (Pielikums Nr.6).
- 9.2.3. Kandidātiem, kuri saskaņā ar nolikuma 9.2.2.punktu būs uzaicināmi iesniegt tehnisko un finanšu piedāvājumu, tiks veikta pārbaude attiecībā uz nolikuma 7.1.punkta apakšpunktos minētajiem izslēgšanas nosacījumiem. Kandidātu pārbaude tiks veikta saskaņā ar Publisko iepirkumu likuma 39.¹panta un 39.²panta noteiktajā kārtībā. Tie kandidāti, kuri neatbilda nolikuma 7.1.punkta apakšpunktos minētajām prasībām, tiks izslēgti no iepirkuma procedūras. Ja kāds no uzaicināmajiem iesniegt tehnisko un finanšu piedāvājumu kandidātiem tiks izslēgts no dalības iepirkumu procedūrā, iepirkumu komisija pārskatīs uzaicināmo kandidātu sarakstu un veiks pārbaudi attiecībā uz nākamo uzaicināmo kandidātu atbilstību nolikuma 7.1.punkta prasībām atbilstoši šajā punktā noteiktajam.
- 9.2.4. Kandidāti, kuri būs atzīti par atbilstošiem pēc nolikuma 9.2.3.punktā veiktās pārbaudes, saņems uzaicinājumu, kuram būs pievienots slēgta konkursa 2.kārtas nolikums, detalizēta tehniskā specifikācija un iepirkuma līguma projekts.
- 9.2.5. Pasūtītājs informē, ka slēgta konkursa 2.kārtā kandidātiem būs jāiesniedz piedāvājuma nodrošinājums kredītiestādes galvojuma vai apdrošināšanas polises formā, 2% apmērā no piedāvājuma cenas bez pievienotās vērtības nodokļa, un būs paredzēts arī iepirkuma līguma izpildes nodrošinājums.
- 9.2.6. Pasūtītājs informē, ka avansa maksājumi iepirkuma līgumā nav paredzēti, bet ir paredzēti starpmaksājumi pēc katra posma pabeigšanas un pieņemšanas no Pasūtītāja puses.

¹² Kā atbilstošu pieredzi uzskatīs, ja speciālists piedalījies publiskās un privātās partnerības projekta izvērtēšanā vai ieviešanā kā ekonomists, finansists, publiskās un privātās partnerības speciālists, jurists, projekta vadītājs, finansējuma piesaistes eksperts.

¹³ Kā atbilstošu pieredzi uzskatīs, ja speciālists piedalījies publiskās un privātās partnerības projekta izvērtēšanā vai ieviešanā kā ekonomists, finansists, publiskās un privātās partnerības speciālists, jurists, projekta vadītājs, finansējuma piesaistes eksperts.

- 9.2.7. Ja to kandidātu skaits, kuri atbilst kvalifikācijas prasībām, ir mazāks par 5 (pieciem), Pasūtītājs ir tiesīgs turpināt iepirkuma procedūru, uzaicinot atlasītos kandidātus iesniegt piedāvājumu.
- 9.2.8. Publisko iepirkumu likumā noteiktajā termiņā un kārtībā rakstisks paziņojums par slēgta konkursa kandidātu atlases rezultātu tiek nosūtīts katram kandidātam.

10. Iepirkumu komisijas tiesības

- 10.1 Iepirkumu komisijai ir tiesības pagarināt pieteikumu iesniegšanas termiņu, publicējot tādu pašu paziņojumu, kādā sākotnēji publicēta informācija par iepirkumu.
- 10.2 Iepirkumu komisija var pieprasīt kandidātam uzrādīt iesniegto kopēto / elektronisko dokumentu oriģinālus vai notariāli apliecinātas kopijas, ja tai rodas šaubas par iesniegto dokumentu kopiju autentiskumu.
- 10.3 Iepirkumu komisijai ir tiesības pieprasīt, lai kandidāts precizē informāciju par savu pieteikumu. Ja iepirkumu komisija pieprasa, lai kandidāts precizē informāciju par savu pieteikumu tā nosaka termiņu, līdz kuram kandidātam jāsniedz atbilde.
- 10.4 Iepirkumu komisija var lūgt, lai kandidāts vai kompetentas institūcijas izskaidro sertifikātus un dokumentus, kas iesniegti atbilstoši Publisko iepirkumu likuma un šī nolikuma prasībām. Iepirkumu komisija nosaka termiņu, līdz kuram kandidātam jāsniedz atbilde.
- 10.5 Iepirkumu komisija ir tiesīga pieaicināt iepirkumu komisijas darbā neatkarīgus ekspertus ar padomdevēju tiesībām.
- 10.6 Iepirkumu komisija ir tiesīga pārbaudīt nepieciešamo informāciju kompetentā institūcijā, publiski pieejamās datubāzēs vai citos publiski pieejamos avotos.
- 10.7 Iepirkumu komisijai ir tiesības veikt citas darbības atbilstoši Latvijas Republikas normatīvajiem aktiem.

11. Iepirkumu komisijas pienākumi

- 11.1 Nodrošināt iepirkuma procedūras norisi un dokumentēšanu.
- 11.2 Nodrošināt kandidātu brīvu konkurenci, kā arī vienlīdzīgu un taisnīgu attieksmi pret tiem.
- 11.3 Publisko iepirkumu likumā noteiktajā kārtībā sniegt informāciju ieinteresētajiem piegādātājiem un kandidātiem.
- 11.4 Veikt citas darbības atbilstoši Latvijas Republikas normatīvajiem aktiem.

12. Kandidāta tiesības un pienākumi

- 12.1 Kandidātam ir tiesības pieprasīt papildu informāciju par slēgta konkursa nolikumu, laikus iesniedzot pieprasījumu iepirkumu komisijai.
- 12.2 Kandidātam ir pienākums sniegt Pasūtītājam patiesu informāciju.
- 12.3 Pēc iepirkumu komisijas pieprasījuma kandidātam ir pienākums sniegt atbildes un precizēt informāciju, kas nepieciešama kandidātu atlasei, pieteikumu atbilstības pārbaudei, salīdzināšanai un vērtēšanai.
- 12.4 Kandidātam ir tiesības iesniegt Iepirkumu uzraudzības birojam iesniegumu par Pasūtītāja darbību attiecībā uz iepirkumu procedūras likumību, ja tas uzskata, ka iepirkumu komisija nav ievērojuši iepirkumu regulējošo normatīvo aktu prasības un tādējādi pārkāpuši iesnieguma iesniedzēja likumīgās tiesības un intereses.

13. Pielikumi

- 13.1. Pielikums Nr.1 – Pieteikuma veidlapa daļībai konkursā;
- 13.2. Pielikums Nr.2 – Kandidāta pieredzes saraksts;
- 13.3. Pielikums Nr.3 - Kandidāta piedāvāto speciālistu saraksts;
- 13.4. Pielikums Nr.4 - CV veidlapa;
- 13.5. Pielikums Nr.5 – Kandidāta speciālistu pieredzes apraksts;
- 13.6. Pielikums Nr.6 – Kandidāta pieredzes apraksts.

PIETEIKUMS

[Vietas nosaukums], 2014. gada __. _____

Kandidāta (personu apvienības) nosaukums: ¹⁴	
Reģistrācijas numurs un datums*:	
PVN maksātāja reģistrācijas numurs*:	
Adrese*:	
Bankas rekvizīti*:	
Pasta adrese:	
Kontaktpersona: (kontaktpersonas ieņemamais amats, vārds, uzvārds, tālrunis, fakss, e-pasts)	
Kandidāta/ Personu apvienības pilnvarotā persona: (pilnvarotās personas ieņemamais amats, vārds, uzvārds, tālrunis, fakss, e-pasts)	

* - aizpilda, ja piemērojams atbilstoši reģistrācijas valsts normatīvajiem aktiem

ar šī pieteikuma iesniegšanu:

- 1) piesakās piedalīties slēgtā konkursā „Rail Baltica dzelzceļa līnijas intermodālā kravu loģistikas centra Latvijā detalizēta izpēte”, identifikācijas Nr. SM 2014/15 TEN-T ;
- 2) iesniedz pieteikumu (turpmāk – Pieteikums), kas sastāv no šī pieteikuma un atlases dokumentiem;
- 3) apliecina, ka uz kandidātu neattiecas Publisko iepirkumu likuma 39¹.panta pirmajā daļā minētie izslēgšanas nosacījumi;
- 4) apliecina, ka visas Pieteikumā sniegtās ziņas ir patiesas.

Paraksts _____
(Kandidāta pārstāvja paraksts)

Vārds, uzvārds: _____

Kandidāta nosaukums: _____

(Kandidāta pārstāvja amata nosaukums)

¹⁴ Personu apvienības gadījumā norāda katra personu grupas dalībnieka nosaukumu, reģistrācijas numuru, adresi.

KANDIDĀTA¹⁵ PIEREDZES SARAKSTS¹⁶ PAR PĒDĒJIEM 3 (TRĪS) GADIEM

Nr.p. k.	Izpildes laiks	Līdzvērtīga līguma nosaukums	Īss darbu satura izklāsts ¹⁷ , norādot plānotos loģistikas centrus un multimodālos stacijas terminālus	Izpildes vieta	Darbu veicējs	Pasūtītājs, t.sk. pasūtītāja kontaktpersonas vārds, uzvārds, telefona nr., e- pasts.	Atsauksme (Kandidāta atzīme vai pievienota/nav pievienota)

Kandidāta pārstāvis:

Vārds, Uzvārds
Ieņemamais amats
Paraksts
Datums

¹⁵ Jānorāda kandidāta pieredze, kas attiecas uz pakalpojuma izpildi atbilstoši 7.4.1.punkta prasībām. Ja kandidāts balstās uz citu personu pieredzi, tad jānorāda arī citu personu pieredze.

¹⁶ Par katru no līgumiem ir jāpievieno pasūtītāja atsauksme.

¹⁷ Saturu kandidāts ir tiesīgs norādīt pieredzes apraksta pielikumā.

KANDIDĀTA PIEDĀVĀTO SPECIĀLISTU SARAKSTS

Nr.p.k.	Speciālista pozīcija saskaņā ar nolikuma 7.4.2.punktu	Speciālista vārds, uzvārds	Darba devējs iepirkuma līguma izpildes laikā/ pašnodarbinātais ¹⁸

Kandidāta pārstāvis:

Vārds, Uzvārds

Ieņemamais amats

Paraksts

Datums

¹⁸ Speciālists, kas iepirkuma līguma izpildē tiks piesaistīts kā pašnodarbināta persona (ar to tiks slēgts uzņēmuma līgums) ir uzskatāma par apakšuzņēmēju, līdz ar to par attiecīgo ekspertu ir iesniedzami papildu dokumenti, ja uz tā pieredzi balstās, lai Kandidāts apliecinātu savu kvalifikāciju, atbilstoši nolikuma 8.9.punktam.

CV VEIDLAPA

Loma projekta izpildes laikā: _____

1. Uzvārds:

2. Vārdi:

3. Izglītība:

Mācību iestāde [Datums no – līdz]	Saņemtais grāds/diploms.

4. Valodu prasmes: Norādiet zināšanu līmeni no 1 līdz 5 (5 - izcili; 1 - pamatzināšanas)

Valoda	Lasītprasme	Mutiski	Rakstiski

5. Pašreizējais amats un darba devējs:

6. Galvenā kvalifikācija (kas attiecas uz pakalpojuma izpildi):

7. Profesionālā pieredze pēdējo trīs gadu laikā (kas attiecas uz pakalpojuma izpildi atbilstoši 7.4.2.punkta prasībām):

Datums no – līdz (mēnesis/ gads)	Vieta	Uzņēmums	Amats	Projekta/darba/objekta nosaukums un īss apraksts, lai apliecinātu nolikuma 7.4.2.punkta prasības (jānorāda pasūtītājs, pasūtītāja kontaktpersona un kontaktainformācija)

8. Profesionālā pieredze pēdējo 4 līdz 10 gadu laikā (kas attiecas uz pakalpojuma izpildi atbilstoši 9.2.1.punkta prasībām):

Datums no – līdz (mēnesis/ gads)	Vieta	Uzņēmums	Amats	Projekta/darba/objekta nosaukums un īss apraksts, lai apliecinātu nolikuma 9.2.1.punkta prasības (jānorāda pasūtītājs, pasūtītāja kontaktpersona un kontaktainformācija)

9. Cita būtiska informācija, kas raksturo speciālista kvalifikāciju un pieredzi un ir attiecināma uz pakalpojuma izpildi:

10. Apliecinājums:

Es, apakšā parakstījies, apliecinu, ka šis CV satur patiesas ziņas par mani, manām zināšanām, kvalifikāciju un pieredzi. Es apzinos, ka nepatiesas informācijas sniegšana šeit var būt par diskvalifikācijas iemeslu.

Es piekrītu piedalīties šajā slēgtajā konkursā par minēto pakalpojumu izpildi kā kandidāta <kandidāta nosaukums> piedāvātais speciālists. Ja kandidāts uzvarēs šajā slēgtajā konkursā, es apliecinu, ka es varu un vēlos pildīt šo darbu paredzētajā speciālista amatā, par ko ir iesniegts mans CV.

[Speciālista paraksts]

Datums.....

KANDIDĀTA SPECIĀLISTU PIEREDZES APRAKSTS PAR PĒDĒJIEM 10 (DESMIT) GADIEM

Kandidāta piedāvāto galveno speciālistu (kas minēti nolikuma 7.4.2.1., 7.4.2.2.punktos) profesionālās spējas transporta objektu plānošanā:

Galvenā speciālista nosaukums	Eksperts (vārds uzvārds)	Objekta nosaukums	Pakalpojuma apraksts	Pakalpojuma izpildes sākums / beigas (mēnesis/gads)
7.4.2.1. Projekta vadītājs		1.		
		2.		
		...		
7.4.2.2. Transporta ekonomists / transporta sistēmu speciālists (analītiķis)		1.		
		2.		
		...		

Kandidāta piedāvāto galveno speciālistu (kas minēti nolikuma 7.4.2.5., 7.4.2.6. punktos) profesionālās spējas publiskās un privātās partnerības jomā:

Galvenā speciālista nosaukums	Eksperts (vārds uzvārds)	Objekta nosaukums	Pakalpojuma apraksts	Pakalpojuma izpildes sākums / beigas (mēnesis/gads)
7.4.2.5. Publiskās un privātās partnerības speciālists – jurists		1.		
		2.		
		...		
7.4.2.6. Publiskās un privātās partnerības speciālists – ekonomists		1.		
		2.		
		...		

Kandidāta piedāvāto speciālistu (kas minēti nolikuma 7.4.2.7., 7.4.2.8., 7.4.2.9., 7.4.2.10. punktos) profesionālās spējas transporta būvju plānošanā vai projektēšanā:

Galvenā speciālista nosaukums	Eksperts (vārds uzvārds)	Objekta nosaukums	Pakalpojuma apraksts	Pakalpojuma izpildes sākums / beigas (mēnesis/gads)
7.4.2.7. Speciālists dzelzceļa staciju projektēšanā		1.		
		2.		
		...		
7.4.2.8. Speciālists		1.		
		2.		

dzelzceļa staciju projektēšanā		...		
7.4.2.9. Speciālists intermodālu dzelzceļa transporta terminālu modelēšanā		1.		
		2.		
		...		
7.4.2.10. Autoceļu projektētājs		1.		
		2.		
		...		

Kandidāta pārstāvis:

Vārds, Uzvārds

Ieņemamais amats

Paraksts

Datums

KANDIDĀTA PIEREDZES APRAKSTS PAR PĒDĒJIEM 10 (DESMIT) GADIEM

Kandidāta (visu personas apvienības dalībnieku kopā, ja kandidāts ir personu apvienība) profesionālā pieredze, kas attiecas uz pakalpojuma izpildi līdzvērtīgu līgumu īstenošanā, lai izvērtētu 9.2.1.punktā 1. un 2.kritērija atbilstību:

Kandidāta vai personu apvienības dalībnieka nosaukums	Objekta nosaukums	Pakalpojuma apraksts	Pakalpojuma izpildes sākums / beigas (mēnesis/gads)	Pakalpojuma izpildes valsts
	1.			
	2.			
	...			
	1.			
	2.			
	...			
	1.			
	2.			
	...			

Kandidāta pārstāvis:

Vārds, Uzvārds

Ieņemamais amats

Paraksts

Datums



LATVIJAS REPUBLIKAS SATIKSMES MINISTRIJA

Gogoļa ielā 3, Rīgā, LV-1743, tālr. 67028210, fakss 67217180, e-pasts: satiksmes.ministrija@sam.gov.lv

Rīgā 10.12.2014. Nr. 01-08/4975
uz 04.12.2014. Nr. 622.12/2-22-12/14
MP 05.12.2014. rezolūcija Nr.45/SAN-2098

Latvijas Republikas Saeima
Informācija: Valsts kancelejai

Par atbildes sniegšanu uz Saeimas deputātu
jautājumu par AS „Air Baltic Corporation” un
VAS „Starptautiskā lidosta „Rīga”

Izpildot Ministru prezidentes 2014.gada 5.decembra rezolūcijā Nr.45/SAN-2098 doto uzdevumu, Satiksmes ministrija ir iepazinusies ar Saeimas deputātu 2014.gada 4.decembra jautājumu Nr.12/J12 par AS „Air Baltic Corporation” (turpmāk arī airBaltic) un VAS „Starptautiskā lidosta „Rīga” (turpmāk arī Lidosta) un saskaņā ar Saeimas kārtības rullja 121.panta pirmās daļas 1.punktu sniedzam atbildes uz uzdotajiem jautājumiem saistībā ar strīdu starp AS „Air Baltic Corporation” un VAS „Starptautiskā lidosta „Rīga” par ko ir ierosināta civillietā Nr.C33342514. Deputātu vēstulē norādīts, ka VAS „Starptautiskā lidosta „Rīga” ir lūgusi rakstveidā Satiksmes ministriju kā abu uzņēmumu kapitāla daļu turētāju, sniegt atbalstu un iesaistīties radušās situācijas pozitīva risinājuma panākšanā ārpustiesas ceļā, taču satiksmes ministrs negaidīti gandrīz pilnā apmērā ir nomainījis VAS „Starptautiskā lidosta „Rīga” valdi un publiskajā telpā paziņojis, ka ministrija nespēj „izdarīt nekādas aktivitātes” ne uz lidostu, ne arī uz valsts īpašumā esošo nacionālo aviokompāniju airBaltic, citāts: ”Satiksmes ministrija kā uzņēmuma akcionārs ir norādījusi, ka abu valsts uzņēmumu saimnieciskie jautājumi ir risināmi sarunu ceļā. Tā kā šobrīd abu sabiedrību jautājums par savstarpējiem saimnieciskajiem darījumiem atrodas tiesu instancēs, tad Satiksmes ministrija kā akcionārs nekādas aktivitātes uz abiem uzņēmumiem izdarīt nevar.”

1. Kā Jūs vērtējat šādu Satiksmes ministrijas pozīciju, vai tā ir atbalstāma un vai šāda ministra bezdarbība nevar novest pie nozīmīga valsts aktīvu vērtību samazinājuma un izdevumiem valsts budžetam, ja šī situācija netiks savlaicīgi atrisināta?

Likums „Par valsts un pašvaldību kapitāla daļām un kapitālsabiedrībām” nosaka valsts kapitāla daļu turētāja tiesības, atbildību un kompetenci. Saskaņā ar minēto normatīvo aktu, kā arī Komerclikumu kapitālsabiedrības valdes kompetencē ietilpst saimnieciskās darbības organizēšana, kā arī no tās izrietošo civiltiesisko strīdu risināšana. Nav uzskatāms, ka atbildīgā ministra rīcība būtu klasificējama kā bezdarbība, ņemot vērā, ka ministrs vairākkārt ir uzdevis rast risinājumu Jūsu vēstulē minētajai situācijai. Kapitālsabiedrību civiltiesiskie strīdi un no tiem radušās izdevumi ir finansējami no pašu kapitālsabiedrību līdzekļiem un nav tieši attiecināmi uz valsts

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budžetu. Tieša Satiksmes ministrijas ietekme/spiediens attiecībā uz situāciju un/vai tās risinājumu nav pieļaujama un var tikt traktēta kā valsts atbalsts kādai no kapitālsabiedrībām, kas ir klaji pretējs Eiropas Savienības normatīvajos aktos noteiktajam.

2. Kā Jūs vērtējat šīs AS „Air Baltic Corporation” parādsaistības pret VAS „Starptautiskā lidosta „Rīga”?”

AS „Air Baltic Corporation” 2010. gada 20. jūlijā iesniedza prasības pieteikumu Rīgas apgabaltiesā, kurā apgalvots, ka VAS „Starptautiskā lidosta „Rīga”” ļaunprātīgi izmantojusi dominējošo stāvokli un tādējādi nodarījis zaudējumus aviokompānijai. Dominējošā stāvokļa ļaunprātīga izmantošana esot izpaudusies kā diskriminējoši augstu cenu noteikšana AS „Air Baltic Corporation”, salīdzinot ar trešo personu. VAS „Starptautiskā lidosta „Rīga”” AS „Air Baltic Corporation” prasībā norādītajiem apstākļiem nepiekrīta.

Izvērtējot lietderības apsvērumus attiecībā uz tiesvedību starp divām kapitālsabiedrībām, kurās Satiksmes ministrija ir kapitāla daļu turētāja, sākot ar 2011.gadu tika uzsāktas sarunas par iespējamo risinājumu AS „Air Baltic Corporation” saistību dzēšanai pret VAS „Starptautiskā lidosta „Rīga””. Puses vairākkārt pēc abpusēja lūguma atlika tiesvedību, ņemot vērā, ka starp Pusēm norit mierizlīguma sarunas. Jānorāda, ka Pušu sarunu rezultātā Pusēm neizdevās rast abpusēji pieņemamu risinājumu, kā rezultātā VAS „Starptautiskā lidosta „Rīga”” 2014.gada 7.maijā iesniedza prasību par parāda un likumisko/līgumisko procentu piedziņu Rīgas rajona tiesā. Ar Rīgas rajona tiesas 2014.gada 12.jūnija lēmumu lietas izskatīšana nodota Ventspils tiesai. Lietas izskatīšana pēc būfības ir uzsākta.

3. Vai Jūs uzskatāt, ka esošā situācija starp abiem valsts uzņēmumiem ir kā normāla saimnieciskā darbība? Kāpēc?

Saskaņā ar Civilprocesa likuma 1.pantu, katrai fiziskajai un juridiskajai personai ir tiesības uz savu aizskarto vai apstrīdēto civilo tiesību vai ar likumu aizsargāto interešu aizsardzību tiesā. Satiksmes ministrijai nav pamata un tiesību liegt kapitālsabiedrībās, kurās tā ir valsts kapitāla daļu turētāja, izmantot normatīvajos aktos paredzētās tiesības aizstāvēt to aizskartās intereses.

4. Kā AS „Air Baltic Corporation” parādsaistības ietekmēs VAS „Starptautiskā lidosta „Rīga”” darbības drošuma spēju, finanšu stāvokli un attīstības stratēģijā nospraustos mērķus un uzdevumu izpildi?

Neskatoties uz to, ka lidsabiedrība airBaltic pilnā apmērā neveic maksājumus par Lidostas sniegtajiem pakalpojumiem, regulāri prognozējot un kontrolējot naudas plūsmu, šobrīd ir nodrošināta Lidostas finanšu stabilitāte. Gadījumā, ja arī turpmāk airBaltic turpinās nenorēķināties ar VAS „Starptautiskā lidosta „Rīga”” par saņemtajiem pakalpojumiem, tas negatīvi ietekmēs VAS „Starptautiskā lidosta „Rīga”” naudas plūsmu un maksātspēju.

VAS „Starptautiskā lidosta „Rīga”” tiesības un pienākumus attiecībā uz drošību nosaka šādi normatīvie akti.

Eiropas Savienības tiesību akti (regulas, lēmumi u.c.):

- Eiropas Parlamenta un Padomes 2008.gada 11.marta Regula (EK) Nr.300/2008 par kopīgiem noteikumiem civilās aviācijas drošības jomā un ar ko atceļ Regulu Nr.2320/2002.

- Eiropas Komisijas Regula Nr.272/2009 ar ko papildina vispārējos civilās aviācijas drošības pamatstandartus, kas izklāstīti Eiropas Parlamenta un Padomes Regulas (EK) Nr.300/2008 pielikumā.

- Eiropas Komisijas 2010.gada 4.marta Regula (EK) Nr.185/2010, ar ko nosaka sīki izstrādātus pasākumus kopīgu pamatstandartu īstenošanai aviācijas drošības jomā.

- Eiropas Komisijas 2010.gada 26.janvāra Regula Nr.72/2010, ar ko nosaka procedūras Komisijas pārbaūžu veikšanai aviācijas drošības jomā.

- Eiropas Komisijas 2010.gada 13. aprīļa Lēmums C(2010) 774, ar ko nosaka sīki izstrādātus pasākumus tādu kopīgu pamatstandartu īstenošanai aviācijas drošības jomā, kuros ir 18. panta a) punktā Regulā (EK) Nr.300/2008 minētā informācija.

Latvijas Republikas normatīvie akti:

- Likums "Par aviāciju".

- Ministru kabineta 2010.gada 27.aprīļa noteikumi Nr.397 "Noteikumi par Valsts civilās aviācijas drošības programmu".

- Ministru kabineta 2010.gada 18.maija noteikumi Nr.463 „Noteikumi par pasažieru, bagāžas un kravas drošības pārbaudes iesaistīto personu sertificēšanu un šo personu sagatavošanā un kvalifikācijas celšanā iesaistīto personu sertificēšanu”.

- Ministru kabineta 2010.gada 5.maija noteikumi Nr.415 „Noteikumi par civilās aviācijas drošības kvalitātes kontroles programmu”.

- Ministru kabineta 2010.gada 1.jūnija noteikumi Nr.496 „Kritiskās infrastruktūras, tajā skaitā Eiropas kritiskās infrastruktūras, apzināšanas un drošības pasākumu plānošanas un īstenošanas kārtība”.

- Ministru kabineta 2010.gada 20. jūlija rīkojums Nr.410 "Rīcības plāns civilās aviācijas gaisa kuģu un objektu apdraudējuma gadījumā" (Pretterorisma plāns "Lidmašīna").

- Ministru kabineta 2013.gada 30. jūlija noteikumi Nr.460 „Iepriekšējās darbības pārbaudes veikšanas kārtība un lidostas caurlaides izsniegšanas un anulēšanas kārtība”.

- Ministru kabineta 2014.gada 25. marta instrukcija Nr.2 „Kārtība, kādā Latvijas Republikas valsts amatpersonas un ārvalstu oficiālo delegāciju pārstāvjus atbrīvo no lidostas drošības pārbaudēm”.

Neskatoties uz esošo tiesvedību ar AS „Air Baltic Corporation”, normatīvo aktu prasības tiek izpildītas un VAS „Starptautiskā lidosta „Rīga”” veic uzlikto funkciju/pienākumu izpildi labā kvalitātē. Saskaņā ar likumu „Par aviāciju”, valsts nozīmes civilās aviācijas lidlauks ir stratēģiski svarīgs, civilās aviācijas infrastruktūras attīstībai un sabiedrības interešu nodrošināšanai vajadzīgs lidlauks, kurā tiek nodrošināti nepieciešamie augstas kvalitātes un drošības standarti.

5. Ja parādsaistības vairāk kā 23 milj.euro apmērā neietekmē lidostas darbības drošumu un rīcībspēju, tad lūdzam Jūs paskaidrot, kā tiek veidots lidostas pakalpojumu tarifs, saskaņā ar kādu metodiku tas tiek noteikts, un kāda ir paredzēta tā piemērošanas kārtība?

VAS „Starptautiskā lidosta „Rīga”” šobrīd spēkā esošās Ministru kabineta noteiktās maksas par valsts akciju sabiedrības „Starptautiskā lidosta „Rīga”” lidlaukā sniegto pakalpojumiem stājās spēkā 2009.gada 1.novembrī, atceļot iepriekš spēkā esošos tarifus, kuriem tika piemērotas apjoma atlaides, kuras par konkurenci kropļojošām 2006.gada 22.novembrī atzina Konkurences Padome, uzliekot Lidostai tiesisko pienākumu pārtraukt atlaižu piemērošanu. VAS „Starptautiskā lidosta „Rīga”” tarifu izstrādei piesaistīja konsultantu SIA „Ernst&Young Baltic”.

Lidostas tarifi un pakalpojuma maksas regulē sekojoši normatīvie akti:

- Ministru kabineta 2013.gada 16.aprīļa noteikumi Nr.210 „Noteikumi par valsts akciju sabiedrības „Starptautiskā lidosta „Rīga”” lidlaukā sniegto pakalpojumu maksu”.
- Ministru kabineta 2011.gada 23.augusta noteikumi Nr.661 „Noteikumi par lidostai uzliedzamām sabiedriskas nozīmes pakalpojumu sniegšanas saistībām”.
- Ministru kabineta 2011.gada 19.oktobra noteikumi Nr.823 „Noteikumi par lidlaukā sniegto drošības un glābšanas pasākumu maksu”.

6. Vai VAS „Starptautiskā lidosta „Rīga”” visām lidsabiedrībām ir piemērojusi vienlīdzīgus pakalpojumu nosacījumus? Ja nav – tad lūdzu uzskaitīt atšķirības piemērotajos nosacījumos, un paskaidrot tās.

2004.gada 23.jūlijā starp VAS „Starptautiskā lidosta „Rīga”” un Ryanair tika noslēgts līgums, ar kuru Ryanair ir piešķirti atvieglojumi salīdzinoši ar citām aviokompānijām. VAS „Starptautiskā lidosta „Rīga”” uzskata, ka ar VAS „Starptautiskā lidosta „Rīga”” – Ryanair līgumu Ryanair tiek sniegts nelikumīgs valsts atbalsts, tāpēc Lidostas–Ryanair līgums ir atceļams no tā noslēgšanas brīža. Līguma par Eiropas Savienības darbību 107.panta 1.punktā ietvertais valsts atbalsta jēdziens ietver jebkādu valsts vai ar valsts līdzekļiem jebkādā formā sniegtu atbalstu. Lai arī visbiežāk valsts atbalsts tiek sniegts tieši, piešķirot subsīdijas vai samazinot nodokļu slogu, valsts atbalsts var izpausties arī darījumos, kur viena no pusēm ir valsts iestāde, kura piedāvā darījumu uz tādiem noteikumiem, kas tirgus apstākļos parasti netiek piedāvāti (sk., piemēram, Quigley, C., European State Aid Law And Policy. Second Edition. Oxford: Hart Publishing, 2009, p. 3). Piešķirtais valsts atbalsts, ņemot vērā to, ka Ryanair veic pasažieru pārvadājumus un konkurē ar citiem aviopārvadātājiem visā Eiropas Savienības teritorijā, neapšaubāmi ietekmē tirdzniecību starp dalībvalstīm (sk., piemēram, EST 1974. gada 2. jūlija spriedumu lietā C–173/73 [Itālija pret Komisiju], Krājums, 710. lpp., kurā EST secinājusi, ka gadījumos, kad vienas dalībvalsts uzņēmumi konkurē ar citu dalībvalstu uzņēmumiem, ražošanas cenu izmaksu modifikācija ar valsts atbalsta starpniecību neizbēgami ietekmē tirdzniecību starp dalībvalstīm). Ietekmi uz tirdzniecību starp dalībvalstīm konstatējusi arī Konkurences padome. Ņemot vērā norādītos apsvērumus VAS „Starptautiskā lidosta „Rīga”” 2014.gada 10.janvārī vērsās Eiropas Komisijā ar sūdzību, kurā VAS „Starptautiskā lidosta „Rīga”” lūdz Eiropas Komisiju pārbaudīt, vai Ryanair Ltd saskaņā ar 2004. gada 23. jūlija līgumu Nr.GH–04/10 nesāņem nelikumīgu valsts atbalstu, kas būtu atgūstams no Ryanair Ltd. Eiropas Komisija šobrīd izvērtē VAS „Starptautiskā lidosta „Rīga”” iesniegto informāciju. Lēmuma pieņemšanas datums nav zināms.

7. Lūdzu paskaidrot, vai Lidosta piemēro visiem vienlīdzīgu pieeju pakalpojumu pārtraukšanas nosacījumiem? Kas notiks situācijā, ja VAS „Starptautiskā lidosta „Rīga”” pārtrauks sniegt pakalpojumus AS „Air Baltic Corporation”? Pie kādiem nosacījumiem tas ir paredzēts?

VAS „Starptautiskā lidosta „Rīga”” visām aviokompānijām piemēro vienlīdzīgus līgumu pārtraukšanas nosacījumus, izņemot Ryanair Ltd - kā minēts atbildē uz 6.jautājumu. Informējam, ka no 2011.gada VAS „Starptautiskā lidosta „Rīga”” nav virszemes pakalpojumu sniedzējs AS „Air Baltic Corporation”.

8. Kā Jūs vērtējat Satiksmes ministrijas darbību – gandrīz pilnā mērā VAS „Starptautiskā lidosta „Rīga”” valdes nomaļu un turpmāko pasīvo

ministra reakciju uz samilstošo situāciju, neveicot nekādas aktivitātes attiecībā uz abiem valsts uzņēmumiem?

2014.gada 11.novembrī pēc pušu vienošanās tika izbeigtas tiesiskās attiecības ar VAS „Starptautiskā lidosta „Rīga”” valdes priekšsēdētāju un valdes locekļiem, saskaņā ar likuma „Par valsts un pašvaldību kapitāla daļām un kapitālsabiedrībām” 76.panta pirmās daļas 3. un 8.punktu, 94.panta otro, trešo un ceturto daļu, 96.panta otro daļu, Komerclikuma 305.panta trešo daļu un, lai nodrošinātu VAS „Starptautiskā lidosta „Rīga”” pārvaldes institūcijas – valdes lemtspēju un rīcībspēju, t.sk. pieņemtu lēmumus saistībā ar lidojumu drošību, kā arī lai nodrošinātu sabiedrības nepārtrauktu darbību, neradītu finanšu riskus, piemēram, laikus neveikto maksājumu vai nesniegtās informācijas dēļ, bija nepieciešams pieņemt lēmumus par VAS „Starptautiskā lidosta „Rīga”” valdes priekšsēdētāja un valdes locekļa iecelšanu.

9. Kādu iespaidu šo valsts uzņēmumu strīds var radīt valsts budžetam?

Šobrīd Satiksmes ministrijas rīcībā nav informācijas, ka VAS „Starptautiskā lidosta „Rīga”” un AS „Air Baltic Corporation” savstarpējais strīds var radīt vai radīs ietekmi uz valsts budžetu.

10. Lūdzu sniegt Jūsu novērtējumu, kādu iespaidu šī situācija atstās uz šo valsts uzņēmumu rīcībspēju, reputāciju un aktīvu vērtību?

Pamatojoties uz likuma „Par aviāciju” 23.¹ panta pirmās un otrās daļas nosacījumiem, Ministru kabinets 2011.gada 5.jūlijā ir izdevis noteikumus Nr.535, ar kuriem noteikts valsts nozīmes civilās aviācijas lidlauka statuss VAS „Starptautiskā lidosta „Rīga”” lidlaukam, kā arī lidlauka teritorijas (arī turpmākajai attīstībai nepieciešamās teritorijas) robežas un lidlauka teritorijas plānotā (atļautā) izmantošana. Saskaņā ar likumu „Par aviāciju”, valsts nozīmes civilās aviācijas lidlauks ir stratēģiski svarīgs, civilās aviācijas infrastruktūras attīstībai un sabiedrības interešu nodrošināšanai vajadzīgs lidlauks, kurā tiek nodrošināti nepieciešamie augstas kvalitātes un drošības standarti. Ar Ministru kabineta 2013.gada 2.jūlija rīkojumu Nr.297 (prot.Nr.36,51.§) un saskaņā ar Teritorijas attīstības plānošanas likuma 7. panta pirmās daļas 11.punktu un 17.panta pirmo un otro daļu VAS „Starptautiskā lidosta „Rīga”” lidlauka teritorijai ir noteikts nacionālo interešu objekta statuss Ministru kabineta 2011. gada 5. jūlija noteikumu Nr.535 „Noteikumi par valsts akciju sabiedrības „Starptautiskā lidosta „Rīga”” lidlauka statusu, lidlauka teritorijas robežām un šīs teritorijas plānoto (atļauto) izmantošanu” 1. un 2. pielikumos noteiktajās robežās. Civiltiesisks strīds nevar prevalēt pār normatīvajos aktos noteikto Lidostas statusu un ir risināms tiesā, Civilprocesa likumā noteiktajā kārtībā.

11. Nav noslēpums, ka AS Air Baltic Corporation” tiek meklēts investors.

Esošā situācija rada negatīvu ietekmi uz kompānijas vērtību. Vai, Jūsprāt, šāda satiksmes ministra rīcība, ļaujot samilt šai situācijai, nevar novest pie līdzīgas situācijas, kā ar AS Citadele banka pārdošanu, kad valsts bija spiesta pārdot tai piederošās akcijas par reālajai uzņēmuma vērtībai neatbilstošu cenu?

AS „Air Baltic Corporation” ir veikusi uzņēmuma restrukturizāciju un šobrīd strādā ar tīro peļņu, kas ir būtisks faktors investora piesaistē.

12. 2014. gada 19.novembrī Krājbankas bankas maksātnespējas administratora KPMG Baltics pārstāve zvērināta advokāte Una Petruska minēja, ka

bankai vēl ir palicis noteikts daudzums kredītu, kuri bija sarežģīti vai kuri bija saistīti ar iepriekšējām bankas amatpersonām, īpašniekiem. Ir 465 šādi aizdevumi ar kopējo prasījumu vairāku desmitu miljonu euro apmērā, kurus turpina apsaimniekot, to vidū ir arī aviosabiedrības airBaltic kredīts. Kā šīs kredītsaistības ietekmēs nacionālās lidsabiedrības attīstību un parādsaistību dzēšanu pret VAS Starptautiskā lidosta Rīga?

Lai arī AS „Air Baltic Corporation” panāktais risinājums ar „Larvijas Krājbankas” maksātnespējas administratoru KPMG Baltics ir būtisks solis uz priekšu AS „Air Baltic Corporation” pagātnes jautājumu risināšanā, tomēr minētais jautājums nav skatāms kontekstā ar darījumiem ar VAS „Starptautiskā lidosta „Rīga””.

Ar cieņu,
Satiksmes ministra vietā
Iekšlietu ministrs



R.Kozlovskis



LATVIJAS REPUBLIKAS EKONOMIKAS MINISTRIJA

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R ī g ā

17.12.2014. Nr. 1-1-15996

Uz 11.12.2014. vēstuli Nr.221.8/1-13-12/14

STEIDZAMI

Latvijas Republikas
Saeimas kancelejai

*Par Saeimas deputātu 2014.gada
11.decembra jautājumu (jautājuma reģistra
Nr.13/J12)*

Saskaņā ar Saeimas kārtības rullja 121.pantu Ministru prezidenta uzdevumā sniedzu atbildi uz Latvijas Republikas Saeimas deputātu jautājumu „Par izvairīšanos sniegt informāciju saistībā ar patiesajiem valstij piederējušo AS Citadele akciju ieguvējiem” (jautājuma reģistra Nr.13/J12).

1.jautājums. Kuri tieši līguma punkti ierobežo Jūsu tiesības sniegt informāciju par Jūsu slepeni noslēgto darījumu, un kādus konkrēti ierobežojumus tie uzliek?

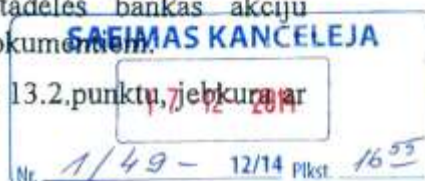
2.jautājums. Ņemot vērā, ka Jūs publiski vairākkārt esat uzsvērusi, ka šajā darījumā valdības izvēlētajiem darījuma partneriem ir augsta reputācija, un tiem ir ļoti svarīgi to saglabāt arī šajā darījumā, nav saprotama vēlme slēpt jau noslēgtā darījuma detaļas, ja tas ir veikts atbilstoši abu darījuma pušu interesēm. Tāpēc lūdzam Jūs informēt, kad, kā un kas tieši ir vērsies pie šiem darījuma partneriem, lai saskaņotu Jums lūgtās informācijas publiskošanu?

3.jautājums. Kuri konkrēti šī darījuma partneri nav ļāvuši Jums sniegt Saeimas deputātu lūgto informāciju, ar kādu pamatojumu? Lūdzu savai atbildei pievienot šīs saskaņošanas lūgumu kopijas un atbildes uz tiem!

Atbilde.

Stājoties ekonomikas ministres amatā, uzdevu valsts akciju sabiedrībai „Privatizācijas aģentūra” (turpmāk – Privatizācijas aģentūra) rast iespēju nodrošināt plašāku skaidrojumu sniegšanu par Citadeles bankas akciju pārdošanas darījumu, investoriem un ar to saistītajiem dokumentiem.

Saskaņā ar Citadele banka akciju pirkuma līguma 13.2.punktu, jebkuram



šo līgumu saistītā informācija ir konfidenciāla un tā izpaušanai (tajā skaitā arī attiecīgu dokumentu izsniegšanai) ir nepieciešamas visu akciju pirkuma līgumu pušu rakstiska piekrišana. Atbilstoši līgumā noteiktai kārtībai Privatizācijas aģentūra 2014.gada 25.novembrī pieprasīja saskaņojumus lielākajam Citadeles bankas akciju pircējam „AR Citadele Holdings LLC” un pārējo akciju pārstāvim „Ripplewood Advisors LLC” par akciju pirkuma līguma publiskošanu. Privatizācijas aģentūra ir saņēmusi investoru „AR Citadele Holdings LLC” juridiskā padomnieka „Slaughter and May” 2014.gada 3.decembra vēstuli, kurā informē, ka investors nepiekrīt publiskot akciju pirkuma līgumu.

Tai pat laikā ir jānorāda, ka, lai arī Citadele bankas akciju pirkuma līgums tika parakstīts 2014.gada 5.novembrī, tomēr darījumu ir paredzēts pabeigt 2015.gada martā, kad tiks saņemti atbilstošu uzraudzības iestāžu apstiprinājumi.

Vienlaicīgi informēju, ka saskaņā ar Ministru prezidentes 2014.gada 15.decembra rīkojumu Nr.448 „Par Danas Reiznieces-Ozolas komandējumu” no 2014.gada 17.decembra līdz 18.decembrim atrodos komandējumā Francijas Republikā. Līdz ar to, šā gada 18.decembrī nevarēšu klātienē piedalīties mutvārdu atbilžu sniegšanā uz Saeimas deputātu jautājumiem.

Pielikumā: „Slaughter and May” 2014.gada 3.decembra vēstules kopija uz 1 lapaspuses.

Ministre



D.Reizniece-Ozola

SLAUGHTER AND MAY

One Bunhill Row
London EC1Y 8YY
T +44 (0)20 7600 1200
F +44 (0)20 7090 5000

Private and Confidential

3 December 2014

For the attention of Vladimirs Lognovs
VAS Privatizācijas Agentūra
Kr.Valdemāra iela 31
Rīga, LV-1887
Latvia

Your reference

Our reference
NV/HGP
Direct line
020 7090 3186

Dear Sirs,

Response to request to publish the sale and purchase agreement dated 6 November 2014 between VAS Privatizācijas Agentūra and various investors relating to the sale and purchase of shares in AS Citadele banka (the "Sale and Purchase Agreement")

We write in response to your letter to RA Citadele Holdings LLC dated 25 November 2014 requesting that the Sale and Purchase Agreement be published.

As you are aware, clause 13.2.2(l) of the Sale and Purchase Agreement provides that the parties to the Sale and Purchase Agreement shall treat as strictly confidential and not disclose or use any information received or obtained as a result of entering into the Sale and Purchase Agreement which relates to the existence and provisions of the Sale and Purchase Agreement. RA Citadele Holdings LLC would like to abide by this provision of the Sale and Purchase Agreement and, as such, decline your request to publish the Sale and Purchase Agreement.

Yours faithfully,

Slaughter and May

cc. RA Citadele Holdings LLC and Ripplewood Advisors LLC

CEI Seed	IJ Cooke	AC Johnson	SM Lee	E Michael	Wu Yu	RJ Knight	Wojcik	Authorized and regulated by the Solicitors Regulation Authority firm SRA number 55368
SH Edge	DL Halliwell	SR Gwyneth	AC Cleaver	RA Dagle	EC Brown	LM Taylor	AM Lyle-Smith	
NFG Boardman	CW Harvey-Kelly	MD Gray	BM Hughes	PC Small	BA Chaplin	DA Ivis	SC Mackay	
HJ Bennett	MD Bennett	MS Hutchings	DS Johnson	PL Davies	J Edwards	MC Llew	A Nazki	
CM Horton	BD de Cade	SM Fawell	S Middleton	JC Pevsle	AD Jolly	LM Chung	DE Reardon	
EA Birtrell	SP Hill	AC Ryde	RA Swales	RA Stacey	S Moudgil	RJ Smith	TA Vickers	
PP Chappell	AC Storr	MD Harris	OC Warfield	CP Brown	JJ Nolan	MDAI Corbett		
P Jelliffe	JB Tigar	SD Werna-Rose-Pryor	OC Wilcock	JC Croft	JA Papanicolaou	RR O'Sullivan		
SL Edwards	A Rees	OA Wittmann	CS Cameron	RJ Tumbull	JM Zaman	AC Foster		
F Murgby	JD Rogers	TS Buxell	CA Connolly	WHC Watton	BA Byr	EG Johnson		
JM O'Leary	Helen Russell	BJ Lister	Hj O'Brien	HJ Dwyer	GA Miles	BM Jones		
HL Stracey	N van Staden	AJ McClean	JP-L Laurence	CNR Jolly	CE O'Keefe	IJ Fife		
CWW Underhill	PWH Birtin	JC Twyman	MS Rowe	ER Nicholas	T Farnesh	JP Slaney		
OA Weirhall	JH Pann	CM Sabem	MST Strong	MJ Tobin	MD Zaidin	U Wright	Document number CO 528891487	
RJ Clark	AM Hyman	MS Griffiths	S Doughty	GG Watkins	KL Cecchi	JP Clark		