



Spatial structure and the transport system along Tallinn – Riga – Kaunas commuting growth corridor

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North Sea Baltic Connector of Regions
Interreg Baltic Sea Region programme 2014–2020





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1 Executive summary

The purpose of the study is to prepare a report *Spatial structure and the transport system along Tallinn – Riga – Kaunas commuting growth corridor*.

The report presents proposals for a common vision of the main transport nodes and connections of the transport corridor with a focus on passenger transportation, but taking into account also the transportation of cargo. The proposals are developed on the basis of the studied documents related to the different levels of the Multilevel Transgovernance model: from the EU level to the national, regional, local levels, as well as in the Baltic Sea region, the Project application form and WP current results.

During the study, stakeholders from Estonia, Latvia, and Lithuania were identified, a questionnaire was developed and a survey was conducted, in which 42 representatives from 3 Baltic countries took part.

The results of the survey were processed and presented in the report in the form of the general opinion of all stakeholders and the separate opinion on individual survey's questions of stakeholders from Estonia, Latvia, and Lithuania. The opinion of the representatives of different categories was presented in more detail. The opinion of the stakeholders was taken into account when developing proposals.

The document also provides information on the current state of transport passenger flows along the route "Tallinn - Riga - Kaunas (Vilnius)", as well as their development trends.

2 Methodology of the study

The study consisting of the following steps was conducted in the framework of the "Spatial structure and the transport system along Tallinn – Riga – Kaunas commuting growth corridor" report preparation:

- Identification of the stakeholders from Estonia, Latvia, Lithuania, their categorisation;
- Analysis of the documents relating to the North Sea – Baltic transport corridor development, preparation of proposals on common understanding of the corridor' main transport nodes and connections;
- Questionnaire development;
- Identification of stakeholders' opinions via intermodal surveys form (common for all stakeholders);
- Processing of opinions and data collected during surveys;
- Collection and analysis of data on traffic flows, passenger mobility, trends in the intensity of passenger flows along the North Sea - Baltic transport corridor;
- Preparation of conclusions.



3 Identification of the stakeholders from Estonia, Latvia, Lithuania, their categorisation

In order to carry out the study and to prepare the report lists of stakeholders from Estonia, Latvia and Lithuania were prepared by Riga Planning Region (the Project partner) and developed by external experts "STS Consulting, Ltd". Stakeholders were initially identified as project partners, project associated partners and other stakeholders. Categorisation of the other stakeholders was made based on the types of organisation:

- ✓ International organisation;
- ✓ National public authorities;
- ✓ Regional public authorities;
- ✓ Local public authorities;
- ✓ Others (Associations, academics, experts, companies etc.).

The original total list of stakeholders included 93 persons, developed total list – 127 persons.

4 Analysis of the documents relating to the North Sea – Baltic transport corridor development, preparation of proposals on common understanding of the corridor' main transport nodes and connections

The analysis of the documents relating to the North Sea – Baltic transport corridor development was carried out by the traditional methods (desk research, logical structural analysis and SWOT).

Studied documents were related to the different levels of Multilevel Transgovernance model: from EU level to national (Estonia, Latvia, Lithuania), regional, local levels, as well as were taking into account results of previous studies on transport system development in the Baltic Sea region, the Project application form and WP current results.

(1) European Union Strategy for the Baltic Sea Region

<https://www.balticsea-region-strategy.eu/action-plan>

Action plan for the European Union Strategy for the Baltic Sea Region (EUSBSR) was developed and updated to consider objectives, targets and indicators of the Strategy that fully correspond to and contribute to the objectives of Europe 2020 Strategy.

The Action Plan defines 3 objectives of the Strategy and their sub-objectives. The main priorities under the objective *Connect the region* are as follows:

- to improve internal and external transport links;
- to improve the access to, and the efficiency and security of energy markets;
- to connect people in the region.

Sub-objective *Good transport conditions* of this objective is relevant to the subject of the '*North Sea Baltic Connector of Regions (NSB CoRe)*' project.



The description of the sub-objective *Good transport conditions* points to the need to develop a well-functioning transport infrastructure in the Baltic States to achieve economic growth, and noted that the planned major infrastructure projects are appropriate from a macro-regional perspective.

The main challenge regarding transport development in the Baltic Sea region is to reduce its remoteness by improving links within the region and to the rest of the EU, that should help boost the competitiveness of the Baltic Sea region and increase its accessibility and attractiveness.

The sub-objective *Good transport conditions* is characterized in the Action plan as follows:

Indicator: Internal and external connectivity of the region, including travel time.

Baseline: The amount of the TEN-T core and comprehensive network elements' meeting the criteria as set out in the TEN-T Regulation.

Target / Deadline: Completion of the TEN-T core and comprehensive network in the Baltic Sea region according to CEF and TEN-T timetables and their links to Russia and Belarus as defined under the framework of NDPTL and involving EaP regional transport network.

This Action Plan comprises *13 policy areas (PA)* and *4 horizontal actions (HA)*, which represent the main areas where the EUSBSR can contribute to improvements.

PA Transport is focused on facilitating a sustainable and efficient transport system in the Baltic Sea Region. The region is strongly dependent on foreign trade and international exchange of services and knowledge and its sustainable growth is based on well-functioning transport connections between the metropolitan areas and other economic centres within its territory as well as with other parts of Europe. The booming Asian markets gives an additional perspective for the Region's external connectivity.

The transport problems and challenges can be solved through common actions. These have been invigorated through a corridor approach set forth by the European Commission within the TEN-T policy. The core network corridors identified in the annex to the Connecting Europe Facility Regulation (EU) No 1316/2013.

Each of the nine core network corridors crossing the EU territory is expected to promote overarching transport solutions in order to achieve efficient, future-oriented and high-quality transport services for citizens and economic operators. Three corridors: *Baltic-Adriatic*, *North Sea-Baltic*, and *Scandinavian-Mediterranean* cross the territory of the Baltic Sea Region.

The efficient transport system in the Baltic Sea Region should be composed of:

- European-level (TEN-T core network corridors) and other transnational corridors for better external accessibility of the Region, with well-developed cross-border sections to secure interoperability of national transport networks,
- National and regional transport links, to improve access from the European and transnational corridors to the local and regional production areas and to the customer markets,
- Ports, airports and intermodal terminals - acting as interfaces between land, sea, inland waterway and air transport modes, well connected with their respective hinterlands,
- Efficient local and regional public transportation, contributing to better mobility within commuting areas and to more compact settlement structures,
- Innovative solutions in logistics and in traffic monitoring systems, development of infrastructure for alternative fuels and electro-mobility solutions
- Platforms for cooperation between public administration, research and business sector to identify potentials and pave the way for future investments,
- Compatible and consistent transport planning and management processes between the governance levels and across the administrative borders.



The EUSBSR defines the actions for PA Transport:

- Capitalise on the TEN-T core network corridors for better connectivity, accessibility and cohesion.
- Improve transport cooperation with the third countries.
- Encourage macro-regional transfer of sustainable solutions in passenger and freight transport.

The key factor of success for the Strategy is the integrated and coordinated governance of the Baltic Sea region, between sectors of society and between regional and local authorities.

HA Spatial Planning is focused on encouraging the use of maritime and land-based spatial planning in all Member States around the Baltic Sea. The overall goal of this horizontal action is to achieve territorial cohesion perspective in the Baltic Sea Region by 2030.

In order to implement VASAB Long Term Perspective within the EUSBSR one of the aims of HA is to encourage transnational actions improving accessibility and connectivity of the Region using potential of TEN-T for regional development and observe regional effects of the European transport infrastructure development.

In frames of EUSBSR land-based spatial planning has been carried out by all Baltic Sea region countries at national, regional and local level.

(2) VASAB Long-Term Perspective for the Territorial Development of the Baltic Sea Region till 2030.

<http://www.vasab.org/index.php/long-term-perspective>

The Long-Term Perspective (LTP) identifies the most important assets, development trends and challenges affecting the long-term development of the Baltic Sea Region.

The LTP is positioned parallel to the implementation of the EU Strategy for the Baltic Sea Region but shows a narrower thematic scope. At the same time the LTP ensures a synergy input to the implementation of the EU Strategy by stimulating some key actions, by applying spatial planning systems, tools and methods in coping with socio-economic development disproportions between the countries and regions, and by setting a monitoring system for territorial development processes in the Region.

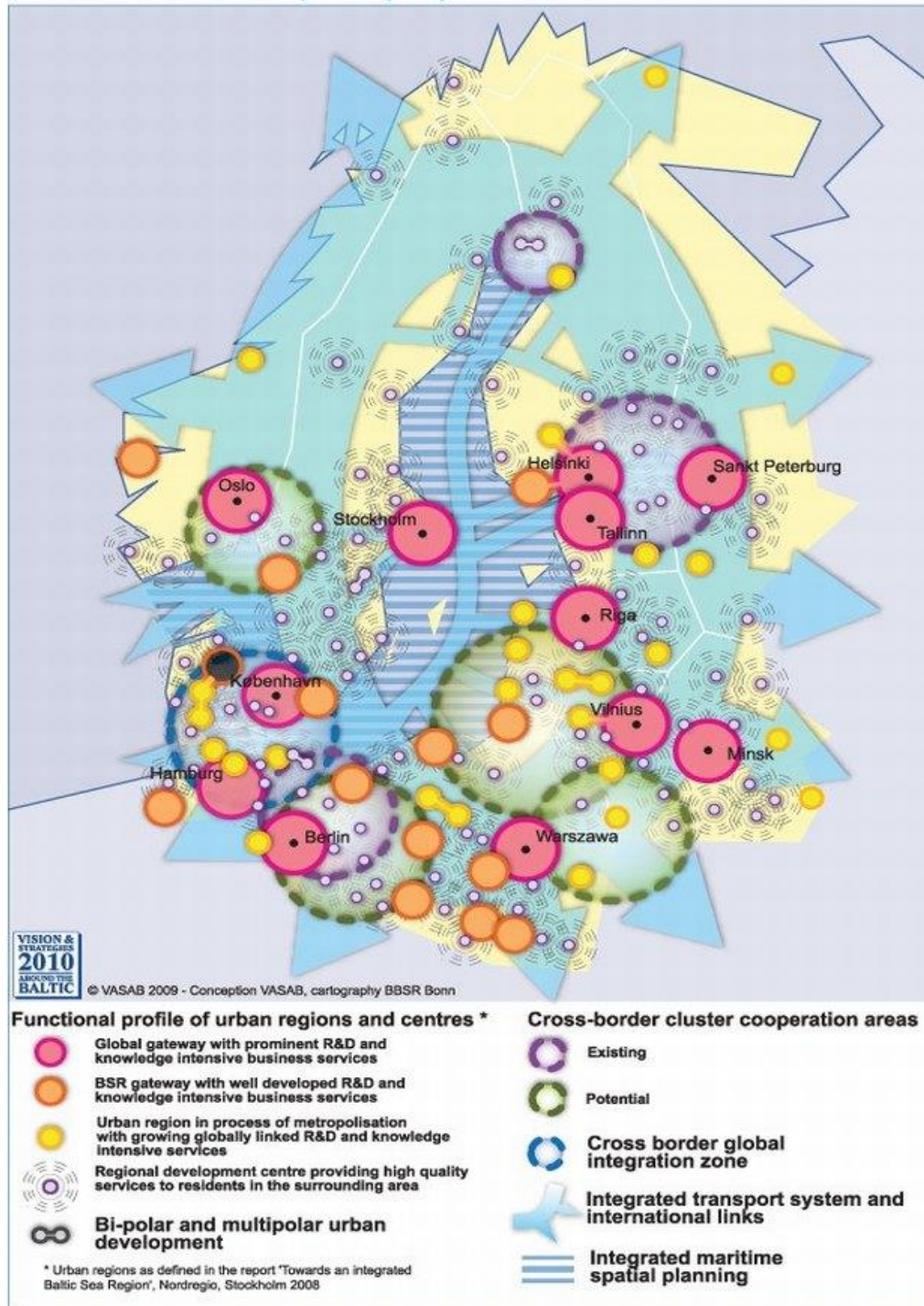
The LTP document covers 3 following policy sectors where the transnational cooperation in spatial planning provides a substantial added value:

- Promoting urban networking and urban-rural Cooperation
- Improving internal and external accessibility
- Enhancing maritime spatial planning and management

The document highlights the present territorial development trends and challenges, as well as presents a long-term perspective for the Baltic Sea Region focusing on urban networking and urban-rural relations, accessibility and management of the Baltic Sea. It also proposes a list of actions to stimulate territorial development potentials and to overcome the existing issues.

The territorial development perspective is presented in the [Figure 4.1](#) below.

2030: Territorial development perspective



Source: VASAB CSD/BSR

Figure 4.1. Territorial development perspective (2030).

VASAB has established a common platform, which allows partners to meet, network, exchange knowledge and experiences as well as developed the EUSBSR *HA Spatial Planning* aims.

ESTONIA

(3) National Spatial Plan Estonia 2030+

<https://eesti2030.files.wordpress.com/2014/02/estonia-2030.pdf>

The document defines the principles and directions of development of the national transport network as an element of the EU transport policy, which promotes above all the free movement of individuals and goods, assuring the functioning of the single internal market.

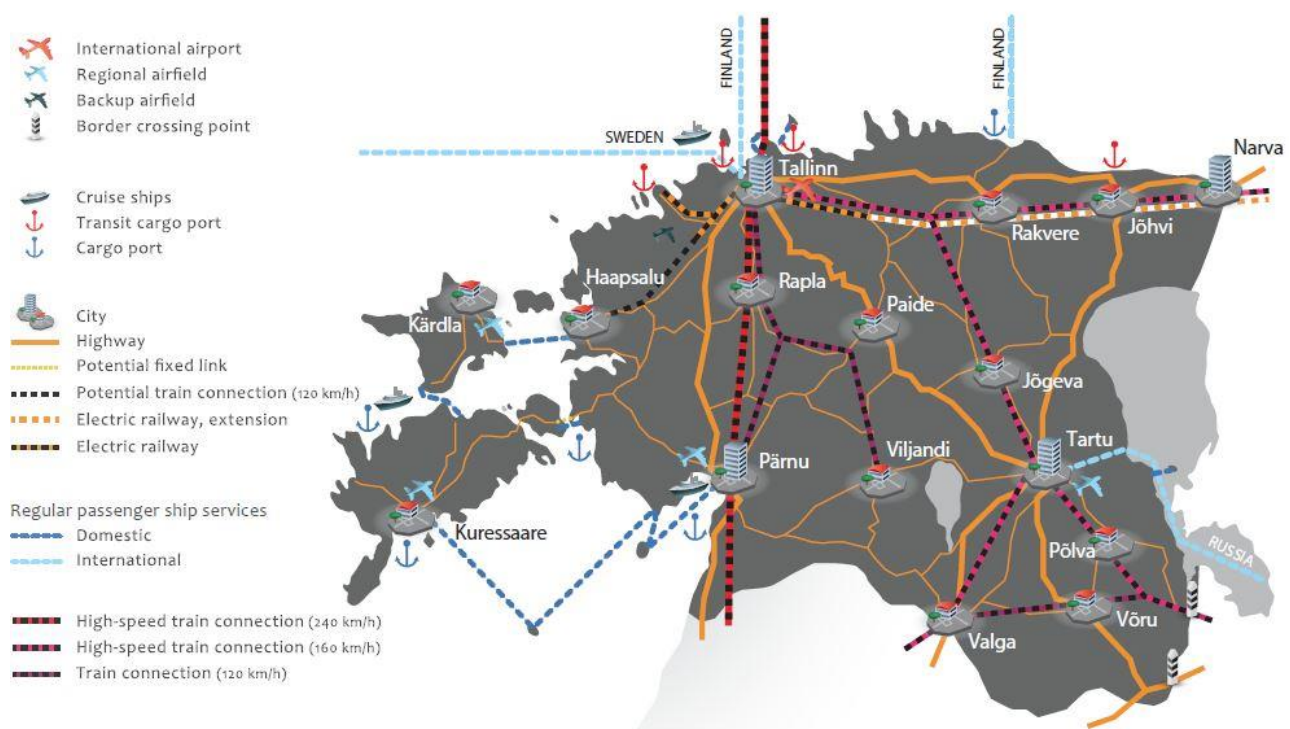
The importance of Estonia's connections with key areas of the EU, including the construction of Rail Baltica, as well as port terminals and logistics centers, which will allow to handle increasing cargo flows from Asia and Europe, is emphasized. The planning of transport networks for Estonia strongly affected by its external links and transit should align mobility facilities and needs at the local, regional, national and international levels.

Attention is given to equipping of rolling stock with new technological properties and control systems for smart logistics, integrated transport solutions in cities and towns and the development of multimodal corridors between them. Developing international transport corridors will increase internal cohesiveness and regional balance.

National Spatial Plan declares the main objectives of transport development:

1. The availability of services, educational institutions and jobs is provided by the linkage within and between daily activity spaces by means of sustainable transport modes.
2. Fast, sufficiently frequent and convenient connections are provided to the external world.
3. Various transport modes are utilised in a balanced manner, considering the specific character of regions.

Basic structure of the transport network in Estonia in 2030 is shown in the [Figure 4.2](#).



[Figure 4.2](#). Basic structure of the transport network in Estonia in 2030.

The backbone of Estonia's transport network is provided by railway services of a significantly improved quality (international transport corridors).

From the point of view of international passenger service, sea transport is currently the most developed. At the same time, there are many opportunities for the development of air and especially rail transport.

The development of international routes and the construction of logistics centers will provide an opportunity for the region along them to receive investments, see economic growth and contract regionally.

(4) Harju County Comprehensive Plan 2030+

https://harju.maavalitsus.ee/documents/182179/14203294/Harju_MP_Seletuskiri_2016-11_j%C3%A4relevalvesse.pdf/019c26e3-db17-4402-be73-269407453f05

Harju County Comprehensive Plan 2030 is developed based on the National Spatial Plan Estonia 2030+. The plan identifies the potential location of transport networks and infrastructure, including national roads, railways, airports, waterways and logistics centers.

In particular as planning elements the following objects are defined:

- the main road 4 (E67) Tallinn-Pärnu-Ikla (Via Baltica);
- Rail Baltica railway line.

The document describes the prospects for the development of Harju County road network, which is characterized by the highest density in Estonia, on specific roads, as well as general conditions for the development of the road network.

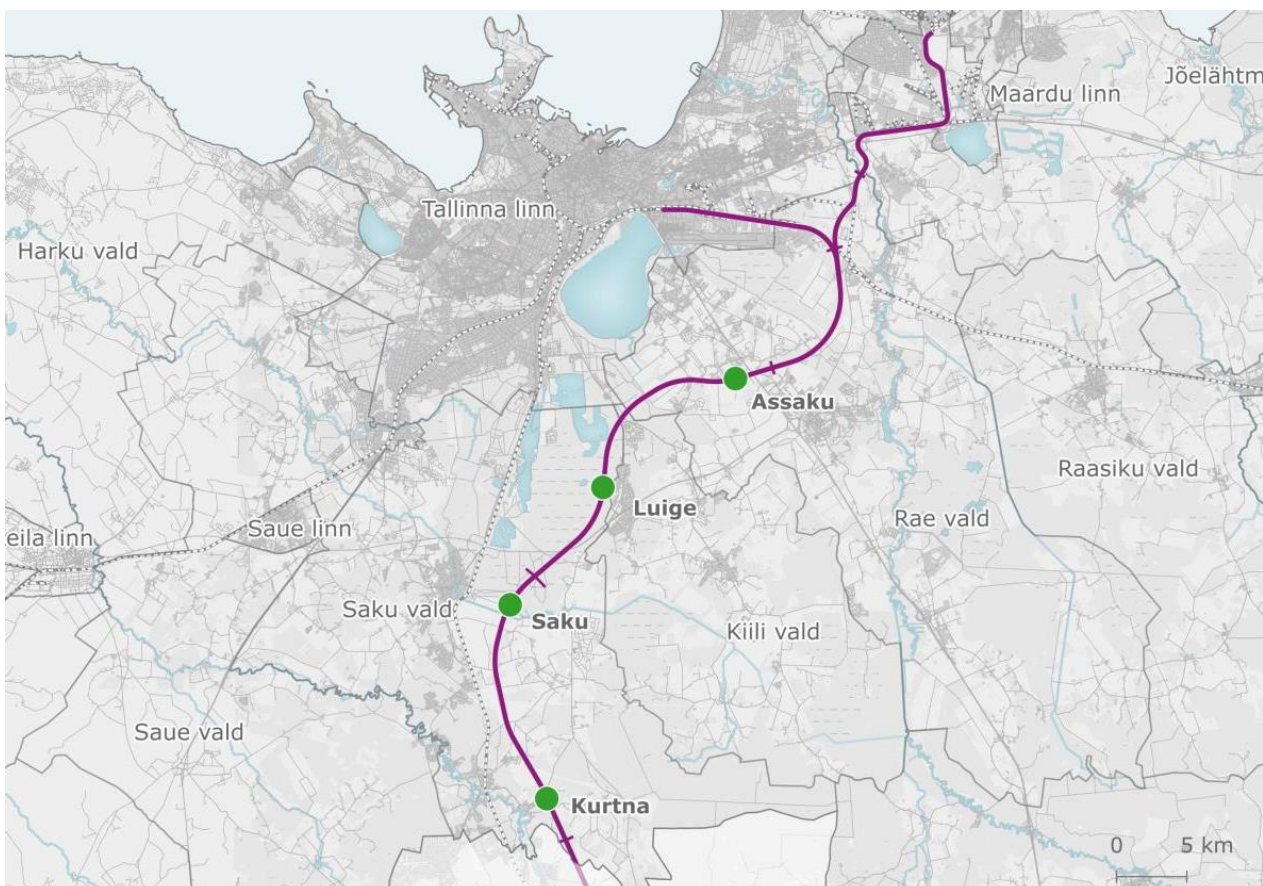


Figure 4.3. Basic locations for local stops in the proposed Rail Baltica.

The plan emphasizes the development of the railway network in Harju County that is tight and multifunctional, providing an environmentally friendly travel opportunity for both travellers, industrial production and raw materials. Tallinn is an important hub for railways, where all the railway corridors of the national and international importance are concentrated.

In particular, the following corridors are presented in the list of railway corridors under development:

- Tallinn-Helsinki railway tunnel and its connection with existing tracks in and around the city of Tallinn;
- Rail Baltica railways corridor for high-speed rail links in Western Europe and an internal circulation link in Estonia improvement to Pärnu direction.

Basic locations for local stops in the proposed Rail Baltica are shown in [Figure 4.3](#).

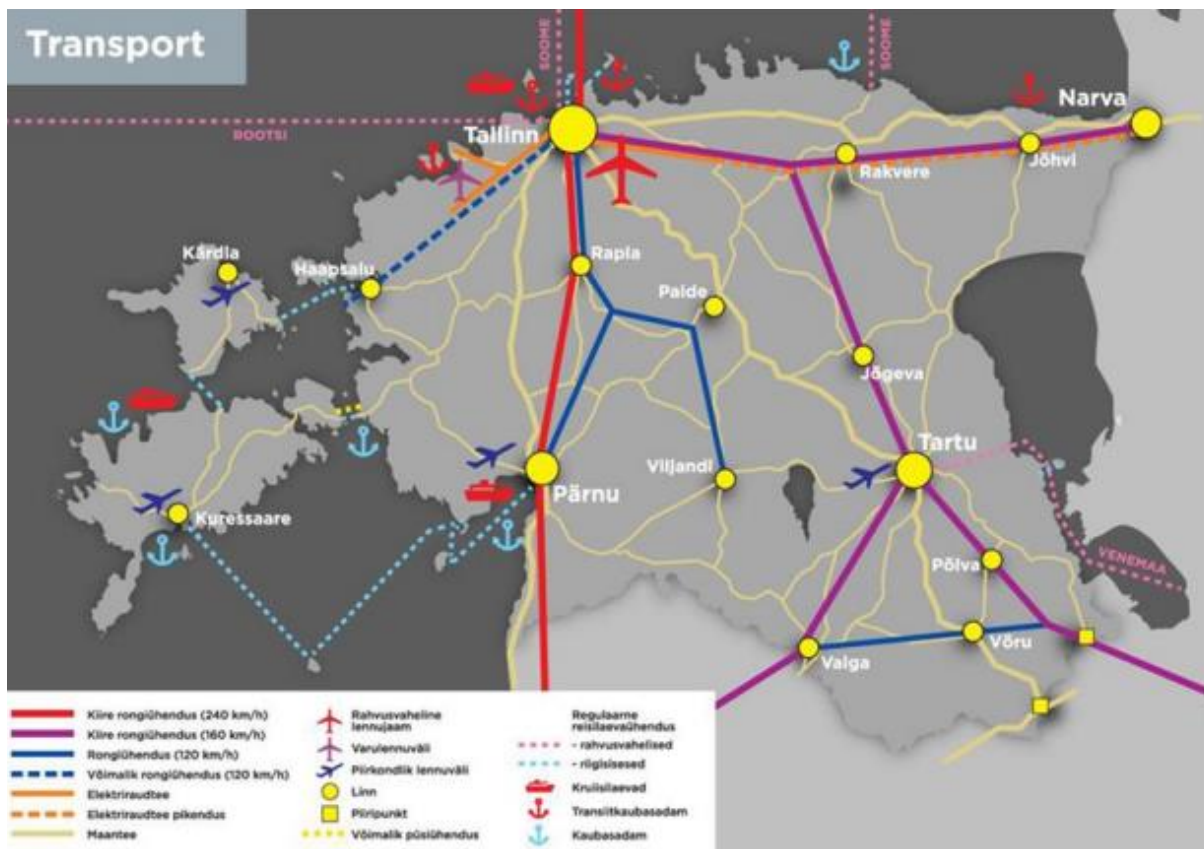
The plan also reflects the general conditions for the development of the rail network.

Document not available in English.

(5) Pärnu County Development Strategy 2020+.

http://parnu.maavalitsus.ee/documents/181369/13061162/Lisa+2.+Ruumilise+arengu+anal%C3%BC%C3%BCs_av.pdf/c2397fcf-894f-4e73-95f7-c56eb3a82675

The strategy notes that Pärnu, the second largest city in Estonia, is located next to Tallinn, and they can be connected by 5 types of transport: sea and river, air, road, rail. The construction of the high-speed railway Rail Baltica with stops in Pärnu County will make the area closer to both Tallinn and Riga, as well as remote cities of the route. [Figure 4.4](#), shown in the document, reflects the transport system of Estonia according to the national planning scheme.



[Figure 4.4](#). Transport system of Estonia (according to the national planning scheme).



In the county the main progress has been made in recent years in the development of road transport, at the same time today the railway connection is limited to Pärnu - Tallinn and larger settlements. After the completion of Rail Baltica, residents of the county will have the opportunity to communicate with European centers. The document also describes the scheme of work of the port of Pärnu for cargo handling, while passenger transportation is not carried out. The development of air communication in the county is based on the need for investment.

The main task, as stated in the document, is to create quick and effective external connections with the world - this involves four main modes of transport: Via Baltica, Rail Baltic, Pärnu airport, Pärnu passenger port.

Document not available in English.

(6) The location of the Rail Baltica Corridor / Pärnu Municipality Plan

<http://parnu.maavalitsus.ee/rail-balticu-raudtee-trassi-koridori-asukoha-maaramine>

The document represents the designation of “Rail Baltic Railway Corridor Positioning” in Pärnu County Planning.

The aim of the county plan is to find the most suitable location for the Rail Baltic Corridor in Pärnu County, from the Rapla County border to the Republic of Estonia.

Different locations were analysed and alternatives were compared by criterion groups: impacts on the human and natural environment, technical feasibility, construction costs, and socio-economic benefits. During the thorough analysis, the best possible route corridor was identified.

The selected route corridor also provides the opportunity to arrange local train traffic in the future along the Tallinn-Rapla-Pärnu-Riga route. For this purpose, prospective locations are planned for the establishment of regional train runs on the Rail Baltic Route.

The plan defines the length of the railway route in Pärnu county, specific settlements, the dispersed areas of the route corridor, as well as the speed of movement for both passenger and freight trains.

On the basis of the county plan, a construction project is prepared, which determines the exact locations of the railway and related infrastructure. The Rail Baltica regional plan consists of an explanatory memorandum and drawings drawn up by the local authorities of the route corridors and the drawing of the Rail Baltica route from the whole county.

The document is published on the Pärnu Municipality homepage.

Document not available in English.

(7) Tallinn development plan 2014–2020

http://www.tallinn.ee/Tallinna_Arengukava_ENG_preview_veebi

The Plan section "Central strategic development trends, related tasks and solutions" emphasizes that it is particularly important to increase the accessibility of urban space by increasing the significance of public transport, including the railways, and the accessibility of light traffic routes.

In the collaboration between Tallinn and neighbouring municipalities, the following needs arise: the need to invest in the entry and exit routes to Tallinn, the need to develop sustainable multimodal transport and follow a coordinated housing policy, optimise the educational network, promote leisure and recreation in green spaces, cooperation in domestic and foreign tourism, etc

When constructing roads connecting with the industrial areas around Tallinn, it is necessary to take into account the railway communication. Construction of the Tallinn railway bypass enables the reduction of traffic flow of the capital city and the removal of environmentally hazardous cargo. The document lists the investment projects for infrastructure objects, as well as the prospective railway corridors are shown in the [Figure 4.5](#).

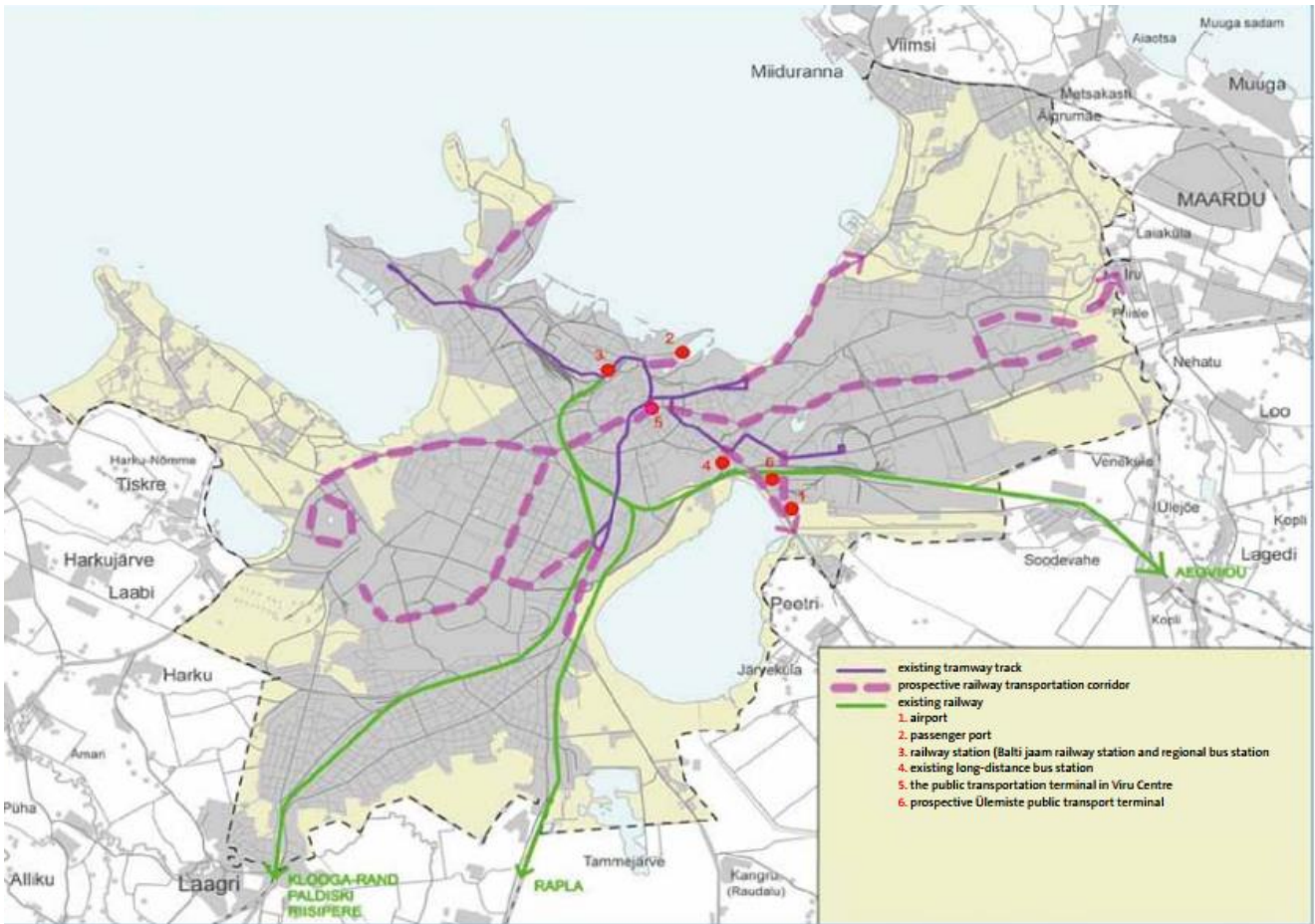


Figure 4.5. Prospective railways corridors.

**(8) Transport policy of Estonia.
National Transport Development Plan 2014-2020.**

<https://www.mkm.ee/en/objectives-activities/transport>

Estonian Transport policy is based on the long-term European Union transport policy that is defined in the White Paper. The purpose of transport policy is to ensure convenient, safe, quick and sustainable movement opportunities for both the population and enterprises. The most environmentally sound and sustainable plans for improving different transport facilities and connections are set out in National Transport Development Plan 2014-2020.



Rail transport sector of the Policy defines the following:

For passenger train traffic:

- The main aim of passenger train traffic is to offer fast and convenient transport connections between cities.

For Logistics and transit:

- For a long time, the carriage of goods by railway has mostly taken place on eastern and western directions.
- The railway must match contemporary technical standards, safety requirements and the expectations of the carriage market.

For International train connections and Rail Baltica:

- Currently, Estonia has established international passenger train connections with St. Petersburg and Moscow.
- Rail Baltica is the largest devised transport investment that is aimed at ensuring a direct connection to the European Union railroad network. Rail Baltica would start from Tallinn and pass through Riga and Kaunas to the Lithuanian/Polish border and from there on to Warsaw. In Estonia, the train would also stop in Pärnu. The electrified railway connection will have a track gauge of 1,453 mm (the “European” gauge); the trains can travel at the maximum speed of 240 km/h. According to the plans, the construction of Rail Baltica will start in 2018 and the connection should be operable in 2025.

The National Transport Development Plan 2014-2020 describes the plans for both international passenger and carriage of goods for the next six years.

One of Estonia’s main goals in the development of the transport sector over the next years is the follows:

Increasing the number of departures and speed of connection for train traffic for trains to become the most favoured means of transport, by connecting Tallinn and other towns; improving the train connection with Latvia (on Tartu-Riga line, Rail Baltic) and Russia (the trip to St Petersburg should be shorter than 5 hours). Providing a tram connection to the Airport.

(9) Planning and NSB corridor in Estonia. Republic of Estonia, Ministry of Finance, Tavo Kikas, Adviser.

The presentation defines the strategic directions in spatial development of Estonian planning system and further presents NSB Corridor in Estonia:

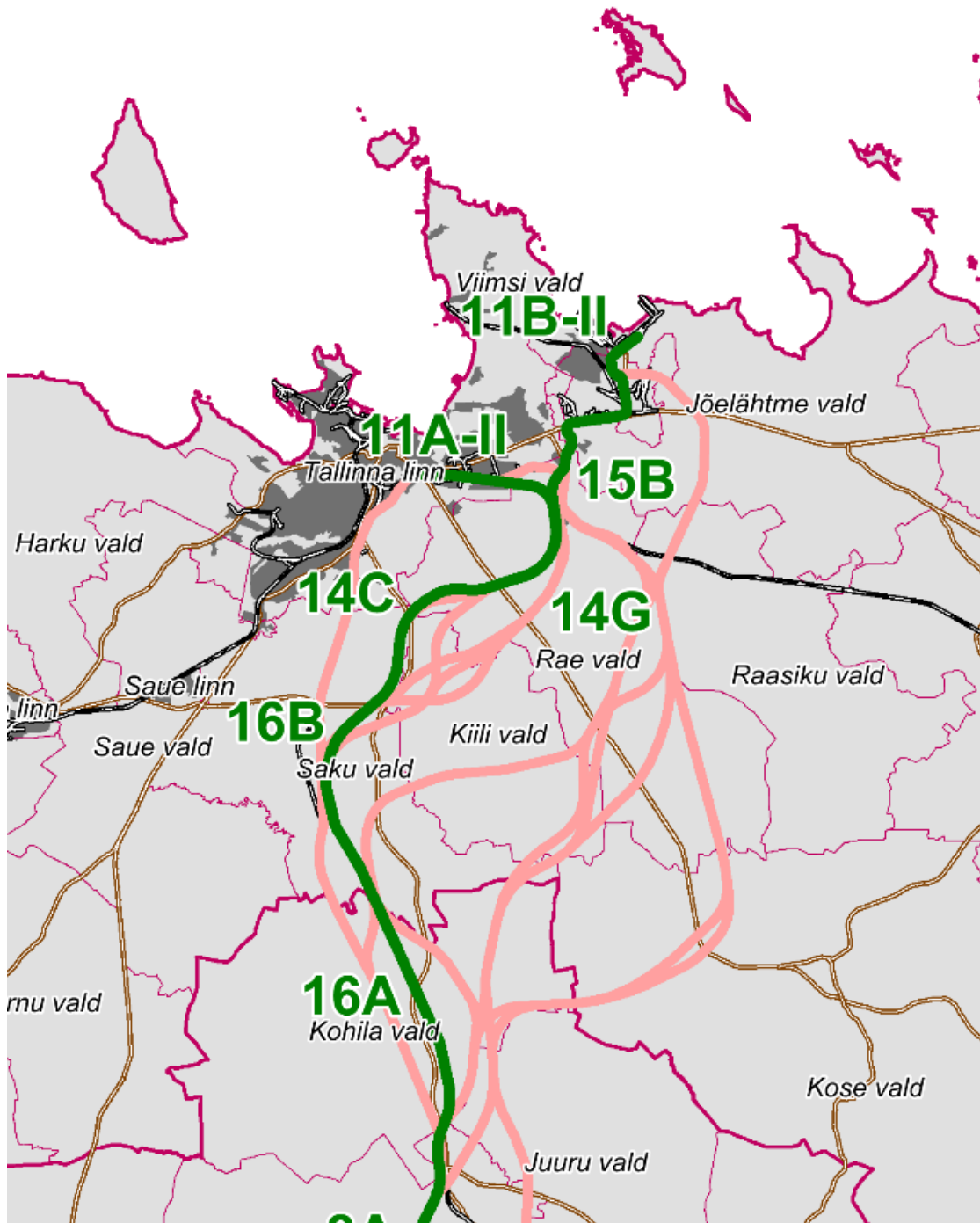
- „Rail Baltica“ 1st stage: Tallinn-Tartu- Valga railway
- Via Baltica: Tallinn-Pärnu-Ikla highway
- Rail Baltica: rail-highway over Pärnu,

As well as detailed Rail Baltica facts:

- North-South railway connecting Nordic and Baltic region to Western Europe
- Passenger and freight
- Double-track at gauge 1,435 mm
- Powered by electricity
- Speed up to 240 km/h
- Stops at Tallinn and Pärnu; possibility in Rapla
- Less than 1 hour from Tallinn to Pärnu and less than 2 hours from Tallinn to Riga

- Total length ca 700 km, ca 200 km in Estonia
- Co-operation Estonia – Latvia – Lithuania; Finland and Poland involved
- Route runs through Harju, Rapla and Pärnu Counties
- Modern railway with low noise and vibration
- No same-level-crossings means safer railway
- Completion: 2022-2025.
- Cost – 4.8 billion euros; Estonia ca 1.3 billion

Comparing alternatives and choosing Rail Baltica best solution are shown in the [Figure 4.6](#) below.



[Figure 4.6](#). Comparing alternatives and choosing Rail Baltica best solution.



LATVIA

(10) The Sustainable Development Strategy of Latvia until 2030

https://www.cbs.nl/NR/rdonlyres/B7A5865F-0D1B-42AE-A838-FBA4CA31674D/0/Latvia_2010.pdf

One of the 7 directions of Latvia's development, defined in the document, is the Perspective of Spatial Development (6th direction).

Objectives of the direction are as follows:

- To create equal life and work conditions for all inhabitants regardless of the place of residence by facilitating entrepreneurship in regions, developing transport and communications infrastructure and public services.
- To strengthen international competitiveness of Latvia and its regions by increasing the role of Riga as metropolis of Northern Europe and international role of other largest cities of the state.
- To preserve the originality of Latvia – the diverse natural and cultural heritage, typical and unique landscapes.

The spatial development perspective puts emphasis on three main aspects:

- a) accessibility and mobility possibilities;
- b) settlement as the economic development, human life and work environment;
- c) spaces of national interest – unique specific territories, which are significant for the development of the whole country.

The section *Improvement of Accessibility* of Strategy correlates with the subject of the project.

This section describes tendencies and challenges and offers promotions to improve of external and internal accessibility. Development directions and solutions are represented in the following areas: planning of transport infrastructure, establishment of an integrated transport system, development of a motorway network, railway and air transport, as well as ports.

The section emphasizes the priority of railway transport development in the future as the most perspective, the international transport project Rail Baltica (Poland, Latvia, Lithuania, Estonia) is also mentioned.

The Strategy contains the cartographic material ([Figure 4.7](#) below) describing Future Spatial Structure of Latvia, which identifies the metropolises of the European level, the development centers of the Baltic Sea Region level, development centres of national level, as well as transport corridors of international and national significance and possible alternatives of the international railway project Rail Baltica, ports, airport Riga and airports of national significance.

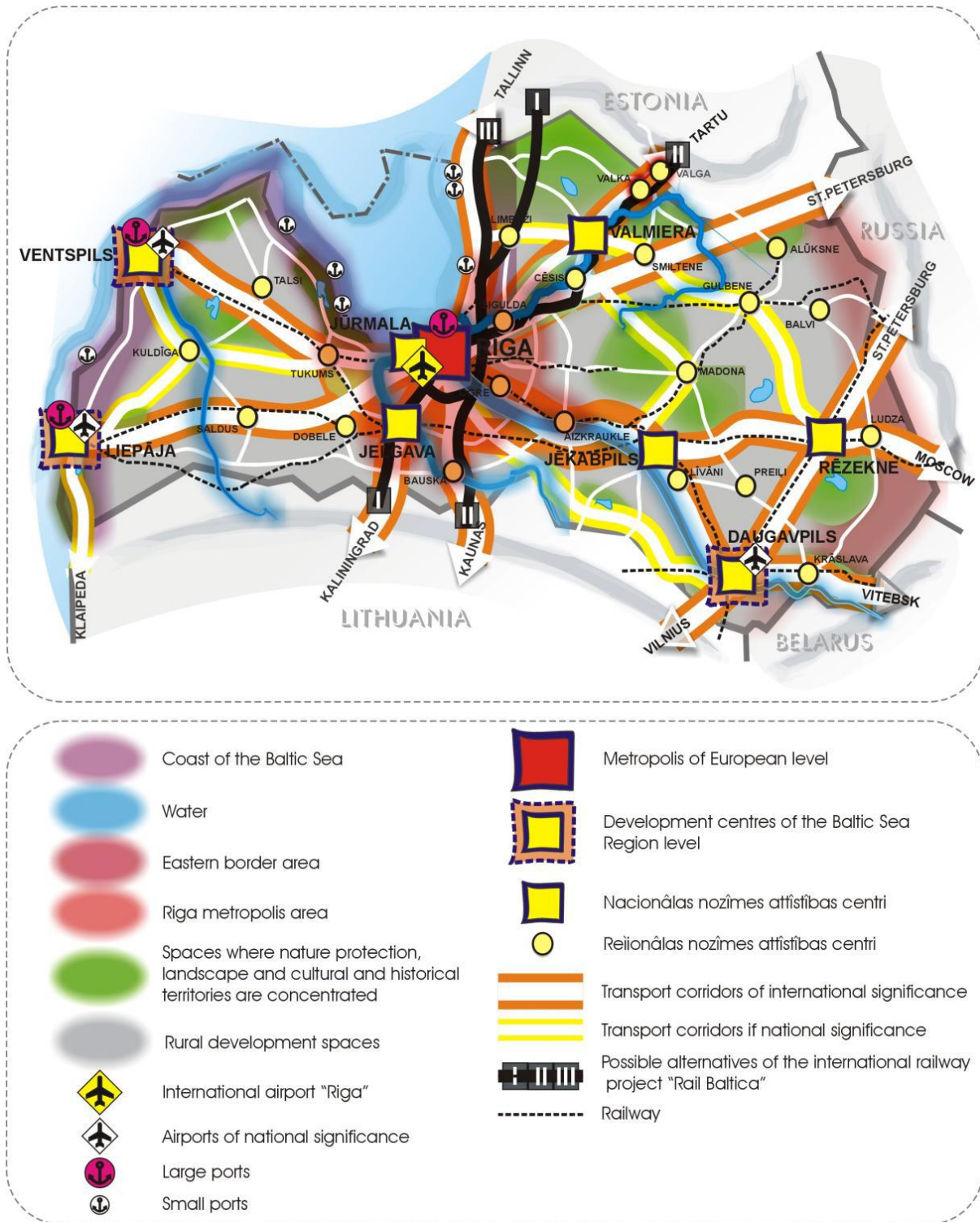


Figure 4.7. Future Spatial Structure of Latvia



(11) The National Development Plan for 2014 – 2020

http://www.pkc.gov.lv/sites/default/files/images-legacy/NAP2020%20dokumenti/NDP2020_English_Final.pdf

As part of the description of the Priority "*Growth of the National Economy*" of the Plan and the strategic objective "*Outstanding Business Environment*", measures are identified that must be implemented. Including, investment in the improvement of the basic infrastructure of Latvian ports (Riga, Ventspils, Liepaja) and their increased capacity (ensuring TEN-T), development of the technical documentation of the Latvian section of Rail Baltica and commencement of the construction through integration in the common Rail Baltica project (ensuring TEN-T) and development of the Riga International Airport to support the existing and projected volume of air cargo and passenger traffic and the growing the transit flow (ensuring TEN-T).

When describing the implementation of the strategic objective "*Availability of Services for Creating More Equal Work Opportunities and Living Conditions*", the following items are indicated: provision and development of the infrastructure of the major transport corridors (TEN-T), including the linking of urban transport infrastructure with the TEN-T network, as well as organisation of public transportation services in a single bus and rail network, providing rural residents with the possibility of reaching regional development centres and the national development centres and the capital.

(12) Riga Planning Region Sustainable Development Strategy 2030

http://www.rpr.gov.lv/uploads/filedir/IAS%20un%20AP%20izstrade/BUKLETI%20LAT%20un%20ENG/RPR%20Strategy%202030_res.pdf

One of the directions of the Strategy implementation is defined as a traffic infrastructure. The document emphasizes the great importance of developing the external (international) accessibility of Riga as a metropolis, as well as the internal accessibility of the centers of regional significance, and accessibility of the surrounding areas. The development of the Rail Baltica project, the development of the Riga International Airport and the Western-Eastern Railway, the expansion of the port of Riga for passenger transportation are identified as factors contributing to the inclusion of Riga in the European and Euro-Asian mobility area.

At the same time, a convenient and fast regional communication is provided by rail and main state roads.

Spatial Development Perspective graphically displays the planned spatial structure of the territory, including the main transport corridors, transport connections and infrastructure (state main and regional roads, railways, ports, airports), as well as utilities network as shown in the [Figure 4.8](#).

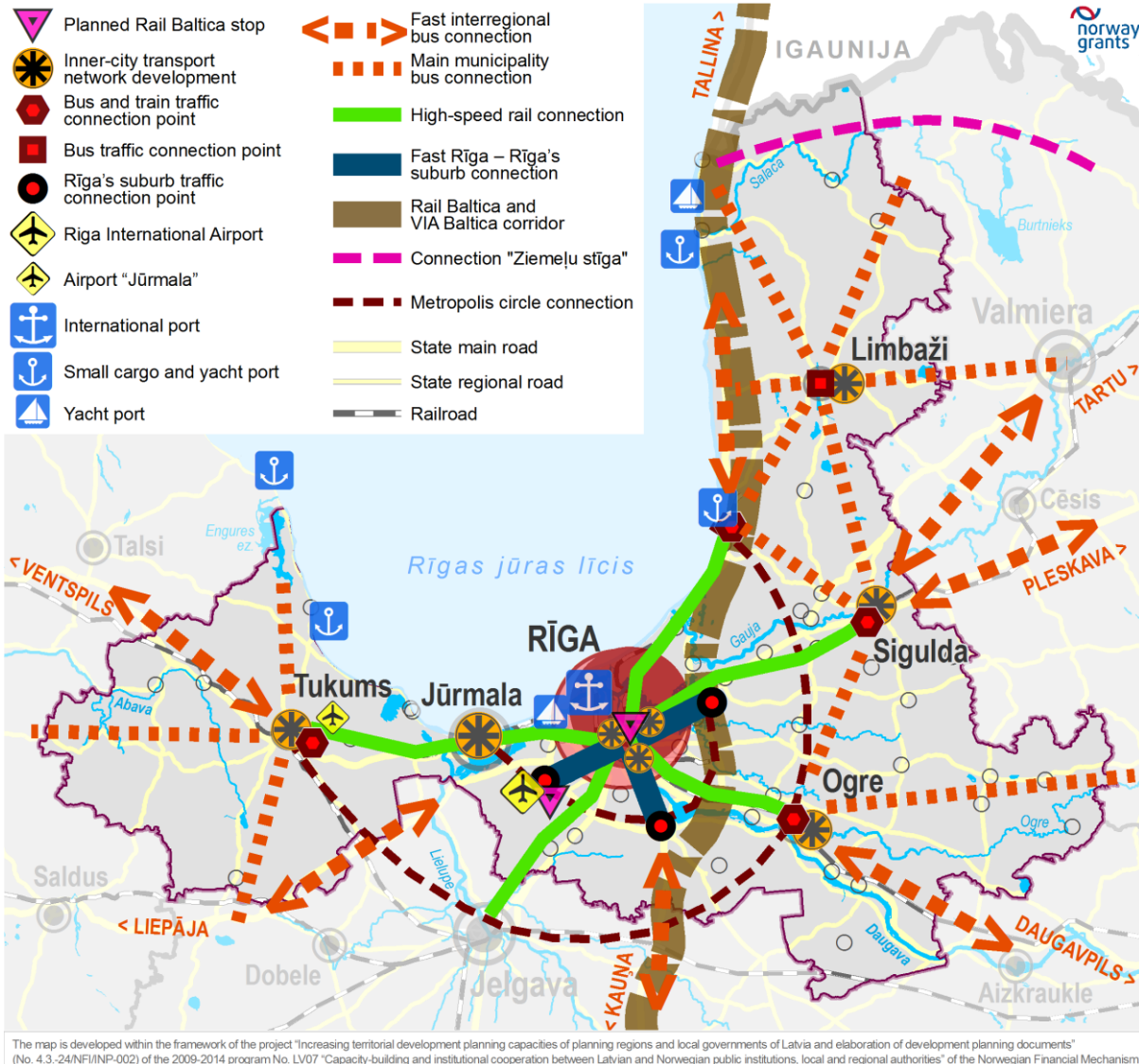


Figure 4.8. Traffic infrastructure spatial structure.

(13) Zemgale Planning Region Sustainable Development Strategy 2030

http://www.zemgale.lv/eng/images/stories/Pamattekstiem/zemgale_development_strategy_2030.pdf

In the Strategy, the main directions of Zemgale economic specializations are indicated. At the same time, transport and logistics are defined as a factor that promotes stable and innovative growth of the economy, provides mobility of residents and transportation of goods.

The main transport corridors connect Zemgale with the direction of Riga, which implies the appropriate development of infrastructure and public transport. Traffic infrastructure spatial structure is presented in the [Figure 4.9](#).

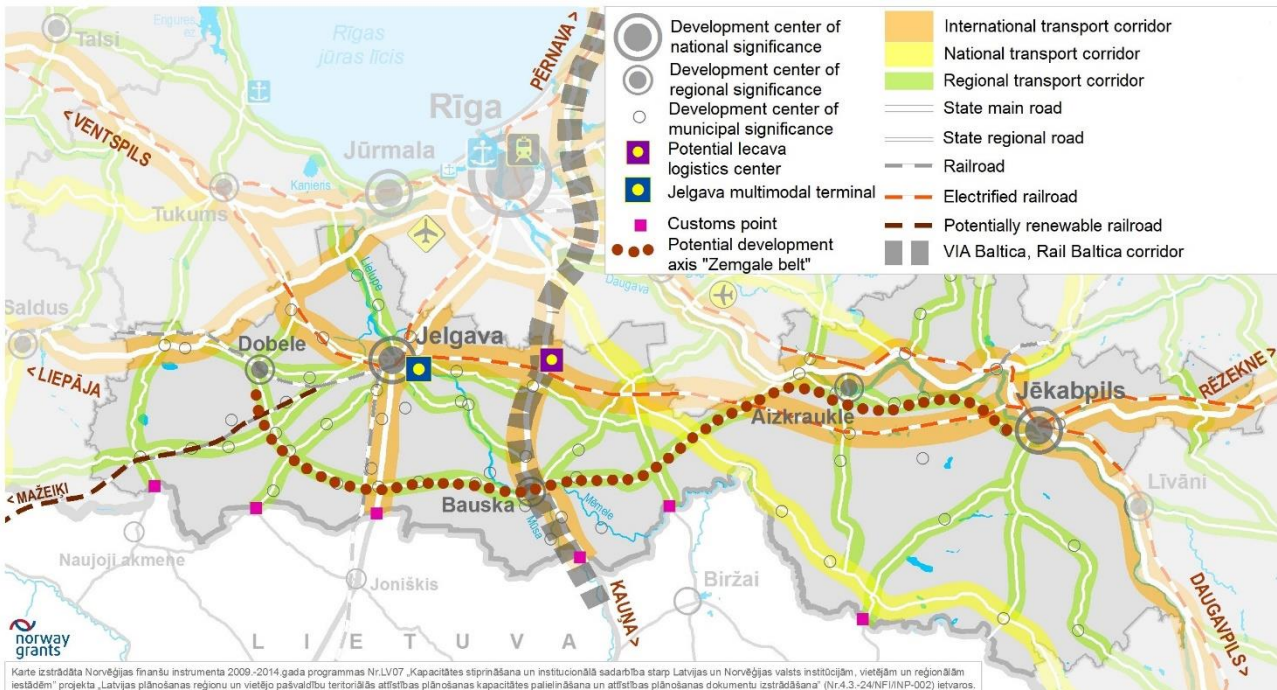


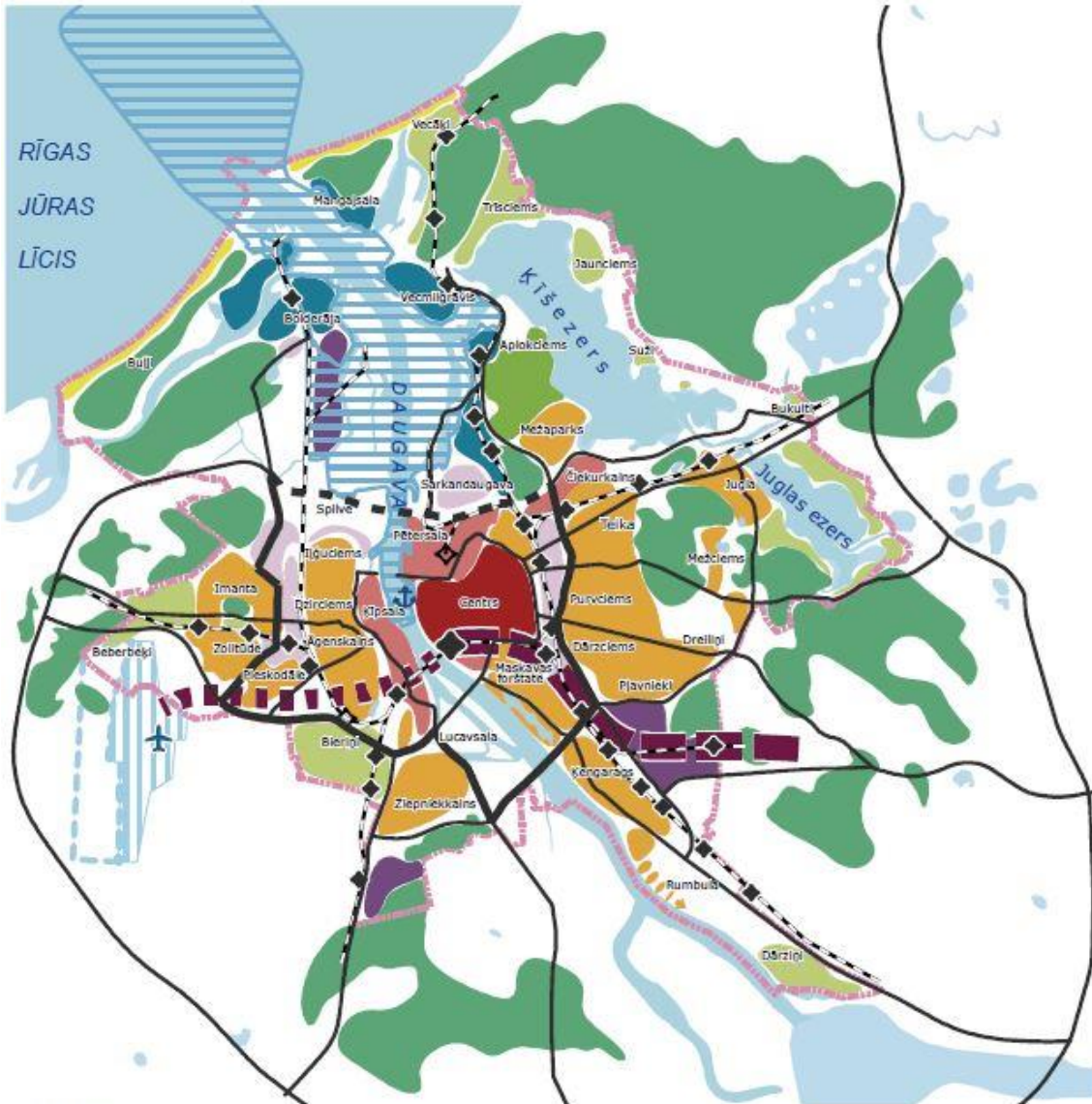
Figure 4.9. Traffic infrastructure spatial structure.

(14) Sustainable Development Strategy of Riga until 2030 and Development Programme of Riga for 2014 – 2020 / Summary

http://www.rdpad.lv/wp-content/uploads/2014/11/ENG_STRATEGIJA.pdf

Sustainable Development Strategy determines that one of the factors that represents the territory specialization of Riga on an international scale is its geographical location - location in the west-east and north-south transport corridors, as well location next to the Baltic Sea.

One of the thematic parts of the Spatial development perspective of Riga is the transport infrastructure. Here is a description of the prospects for the development of the central railway station as the only stop of Rail Baltica in Latvia, as well as the ring roads, taking into account the transit transport schemes through the planned Northern corridor. The structural plan of Riga reflects among others the location of the key logistics development territories (Figure 4.10 below).



Legend

- City core
- Priority development territories
- Priority revitalising neighbourhoods
- Revitalising residential neighbourhoods
- Territories of private houses
- Revitalising recreational territory
- Beach recreational territories
- Green centres
- The main manufacturing centres
- Manufacturing territories
- Transport infrastructure
- Possible crossings of the River Daugava
- ◆ The main railway stops and lines
- ◆ Entrance of "RailBaltica" and its connection to Riga International Airport
- Freeport of Riga, passenger terminal
- Riga International Airport, passenger terminal
- Expansion of Riga International Airport

Figure 4.10. Structural plan of the city of Riga.



(15) Transport Policy Guidelines 2014-2020 / Latvia

The objective of the Transport Policy of Latvia is defined in accordance with National Development Plan 2020 and is the follows: A competitive, sustainable, co-modal transport system that ensures high quality mobility, efficiency using resources, including EU funds.

In the section "Justification of the investment" it is emphasized that the introduction of the Rail Baltica will create stable economic ties with the central part of Europe and expand the possibilities for economic cooperation, as well as increase the internal and external mobility of the inhabitants of the Baltic region.

The section of the Transport Policy "Planning of further actions" in accordance with its objectives presents the tasks, the main measures, the activities necessary to achieve the goals, as well as timelines, responsible institutions and funds.

Task 1.2., called "*To ensure the infrastructure development of the most important transport corridors*", describes measures such as the renewal and the development of the TEN-T road network, development of the TEN-T railway network infrastructure, development of the Freeport of Riga, the Free Port of Ventspils and the Port of Liepaja, as well as the development of Riga as the air traffic center of the Northern Europe.

LITHUANIA

(16) Comprehensive Plan of the Territory of the Republic of Lithuania

https://map.tpdr.lt/tpdr-gis/index.jsp?action=tpdrPortal®_tpd_id=52605

The document indicates that the spatial territory of Lithuania must become a part of a European spatial structure that is fully integrated and organically integrated into a common continental social, economic and ecological relationship system.

The Plan defines the objectives of transport and communications complex development:

- to integrate the Lithuanian transport system into the pan-European transport network and services market as well as the transport system of the Baltic Sea basin countries;
- to develop a unified Lithuanian communication system, which allows for the complex solution of regional and national transport needs;
- to balance the development of the national transport system with the maximum utilization of the existing infrastructure of various modes of transport, reducing the environmental impact of transport;
- to seek timely modernization of the Klaipėda Seaport as an integral part of the international transport corridor IX B and to strengthen the competitiveness of the port;

The Comprehensive plan indicates the development of the transport infrastructure of Lithuania until 2020. The development of road transport is defined in the Plan as a top priority. Other priorities of the development of the country's transport infrastructure are:

- modernization of existing roads and improvement of driving conditions through cities;
- speeding up rail transport by modernizing them or by developing second rails.

In particular, it is planned to extend the newly formed trans-European railway corridor I of the standard European rail corridor Via Baltica to the capital of Lithuania - Vilnius, improving the connection in the Vilnius-Kaunas metropolitan area, while providing technical possibilities for increasing the speed of up to 220 km / hour in the future.

The plan for the development of the technical infrastructure is shown in the [Figure 4.11](#) below.

Document not available in English.



[Figure 4.11.](#) The plan for the development of the technical infrastructure in Lithuania.



(17) Lithuania's Progress Strategy 2030+

<https://www.docdroid.net/ERhjMs3/en-lietuva2030.pdf.html#page=3>

The strategy does not address the development of the Lithuanian transport system.

It should be noted that the aspiration to become an integral, successful, politically and economically consolidated part of the Nordic-Baltic region has been noted in the document as a focus.

As a key initiative of Smart Economy, one of the three priorities of the Strategy (Smart Society, Smart Economy, Smart Governance), the following is defined:

To ensure the need for mobility by creating an effective integrated public transport system, a modern infrastructure of high quality, and by developing sustainable mobility initiatives.

(18) Strategic Development Plan of Kaunas City Municipality up to 2022

<http://en.kaunas.lt/wp-content/uploads/sites/10/2015/11/STRATEGIC-DEVELOPMENT-PLAN-OF-KAUNAS-CITY-MUNICIPALITY-UP-TO-2022.pdf>

One of the aims of the Priority area "Sustainable territory and infrastructure development" is *High-quality and safe transport infrastructure*, which consists of two objectives: *Ensuring the quality of transport infrastructure* and *Development of the public and non-motorized transport systems*.

The document contains plan for development measures on the priority areas identified in it. The plan specifies the measures, measure implementation indicators, implementation period and competent authority for each objective.

For the objective *Ensuring the quality of transport infrastructure* (implementation period 2016 – 2022) is defined the following measure:

Implementation of the project "Rail Baltica" in Kaunas (installation of Amaliai crossing, bypass road) and measure indicator:

New pedestrian tunnel with pedestrian walkways and cycle paths under the route "Rail Baltica"; Reconstructed Marių street to Palemono street by equipping the crossing with the route "Rail Baltica"; Reconstructed Chemijos and Kalantos streets by equipping the crossing with the Southeast Bypass and the route "Rail Baltica".

(19) Long-term Development Strategy 2025 of the Lithuanian Transport System

https://trimis.ec.europa.eu/sites/default/files/project/documents/20150807_140932_12902_263_Strategy_EN.pdf

The following key - long term goals of the Lithuanian transport system development are identified in the document:

- to achieve the level of transport service quality and technical parameters of the old EU Member States;
- to effectively cooperate with the transport systems of the neighbouring countries; to become an integral and important link of the transport system (West-East) of the Baltic Sea region.
- to enable people of Lithuania to conveniently and rapidly reach main cultural, tourism and commercial centres of Europe;
- to effectively serve the interests of Lithuania and the enlarged EU, to increase competitive capacity in international markets.

One of the key directions of Transport policy is the development of infrastructure.



The priority of the direction is the development of the trans-European transport network crossing the national borders, which would enable Lithuanian people to reach centres of other EU States. It is the establishment of a modern north-south axis, formed on the basis of European transport corridor I (Tallinn-Riga-Kaunas-Warsaw) that connects the Baltic States with Poland.

Another major project related to the expansion of the above-mentioned transport axis and implementation of the project Rail Baltica is construction of the railway line Tallinn-Warsaw via Kaunas.

The document defines planned measures for the modernization and development of railway transport by 2006, 2013 and 2015, some of which are related to the development of Rail Baltica. The final part of the Strategy summarizes the investments necessary for the modernization and development of the Lithuanian transport infrastructure (road, rail, water and air transport), including the numbers for Rail Baltica.

PROJECT MATERIALS

(20) North Sea Baltic. Work Plan of European Coordinator Catherine Trautmann. May, 2015

https://ec.europa.eu/transport/sites/transport/files/themes/infrastructure/news/doc/2015-05-28-coordinator-work-plans/wp_nsb_final.pdf

This Corridor is a clear example of a principal objective of the new TEN-T policy by connecting east with west and improving the accessibility of the eastern Member States. It is the northern-most Corridor connecting the developed Western markets with the Eastern markets.

The work plan defines the main objectives of the corridor, as well as its characteristics: corridor alignment, compliance with the technical infrastructure parameters of the TEN-T guidelines separately for rail, inland waterways, ports, airports and roads, as well as presents the results of transport market study and critical issues on the North Sea - Baltic Corridor on the following positions: cross-border links, bottlenecks (rail, road, inland and water bottlenecks, interoperability, as well as ports and motorways of the sea bottlenecks), connections to airports

In the section 'Recommendations and outlook by the European Coordinator' the top priority issues to be addressed for the functioning of the Corridor are defined:

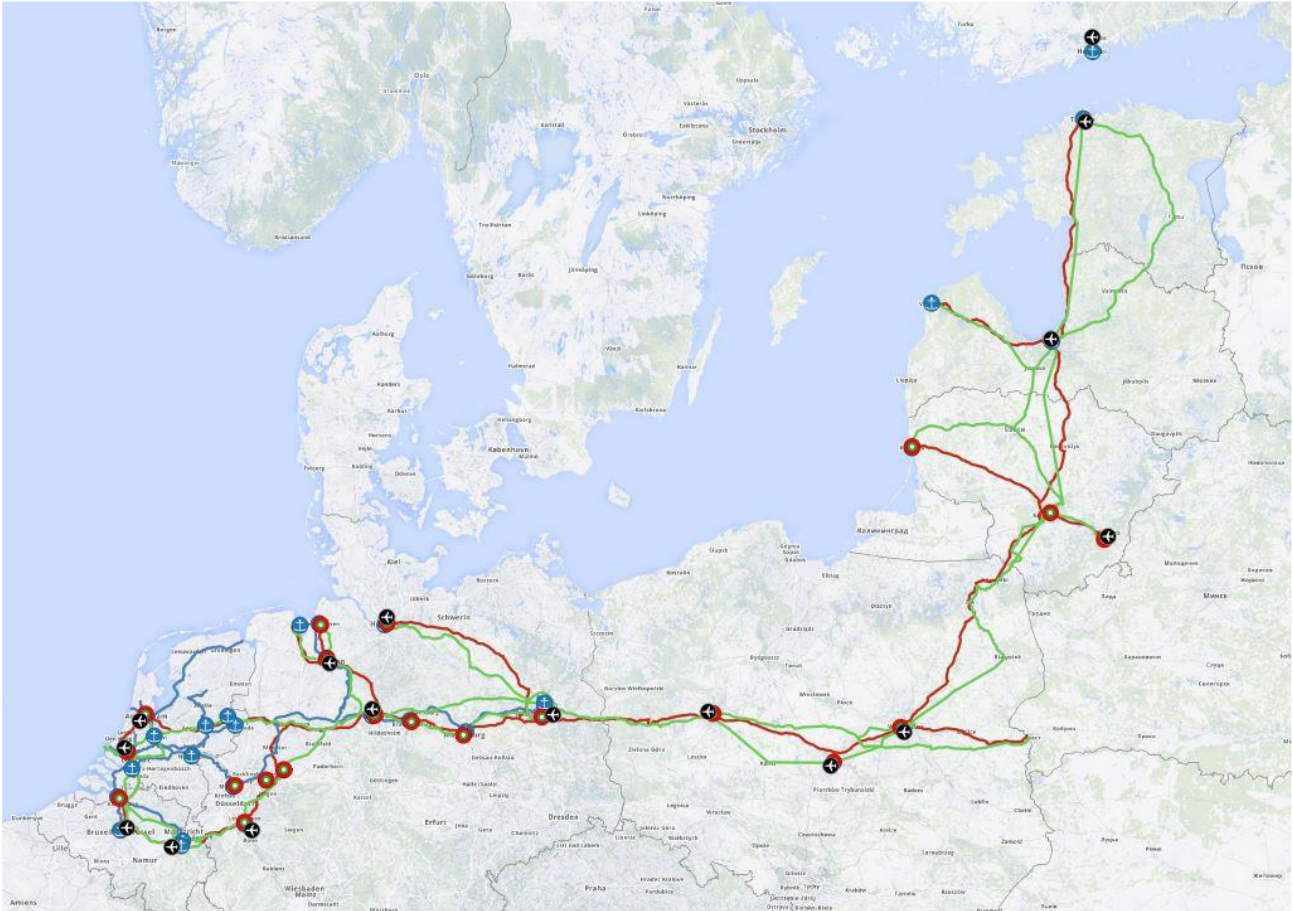
- timely implementation of the missing cross-border link – the Rail Baltic project;
- the hinterland connection – rail, road and inland waterways – of the main ports;
- the interoperability of the railway network in close cooperation with the "North Sea – Baltic" Rail Freight Corridor;
- the importance of the main urban nodes, particularly the multi-corridor nodes.

(21) North Sea Baltic. 2nd Work Plan of European Coordinator Catherine Trautmann. December, 2016

<https://ec.europa.eu/transport/sites/transport/files/tent-coordinators-2nd-workplan-nsb.pdf>

The 5,986 km rail and 4,092 km road long North Sea-Baltic Corridor ("Corridor") is one of nine core network corridors and the only one to be situated exclusively in the North of Europe. It joins the Baltic Sea Region with the low countries of the North Sea Region by way of Helsinki, the Baltic States, Poland and Germany.

The [Figure 4.12](#) below presents the North Sea Baltic corridor map including urban nodes and transport interconnections.



[Figure 4.12.](#) North Sea-Baltic Corridor map (different Urban Nodes and transport interconnections by mode).

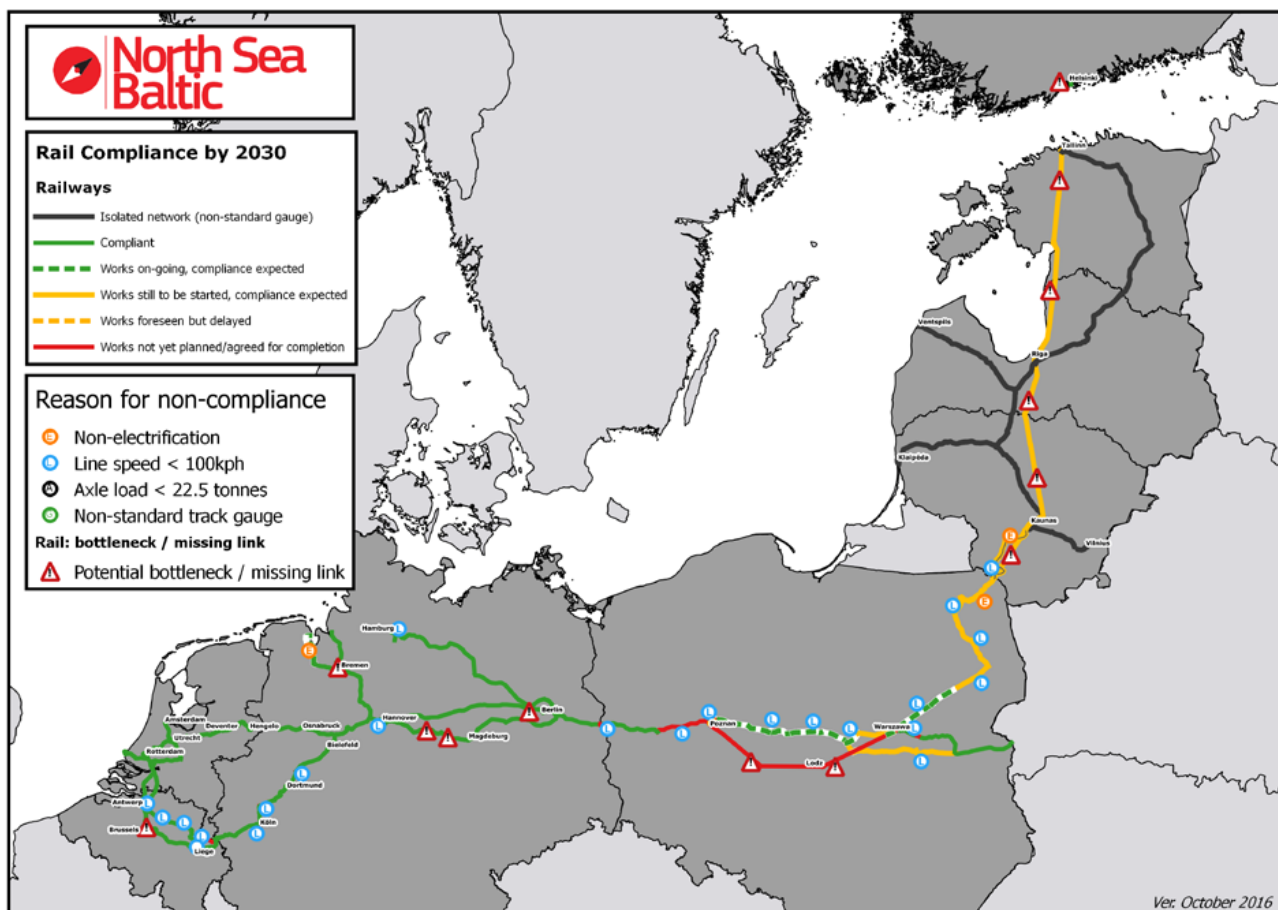
The following aspects of the development of the transport corridor are considered in the 2nd Work Plan:

- Bridging missing links in the rail network
- Connecting the ports with the hinterland
- Corridor integration and cross border sections
- Compliance with technical requirements for all modes
- Efficient urban nodes
- New technologies
- Economic potential

2nd Work Plan further develops the corridor characteristics for the individual items and their compliance with TEN-T requirements: Rail, Rail-road Terminals, Inland waterways (N/A for Estonia, Latvia, Lithuania), Inland Ports (N/A for Estonia, Latvia, Lithuania), Seaports and maritime infrastructure (N/A for Estonia, Latvia, Lithuania for the Availability of alternative fuels position), Roads ((N/A for Estonia, Latvia, Lithuania for the Parking areas along the roads including their security level), Airports and Urban nodes.

The plan presents the results of a more developed study of the transport market in the aspect of freight and passenger transport, as well as capacity issues for all transport modes.

List of projects and planned investments by transport modes and critical issues on the North Sea - Baltic Corridor are also described in the 2nd Work Plan. [Figure 4.13](#) demonstrates the Rail compliance by 2030.



[Figure 4.13.](#) Rail compliance by 2030

(22) Project North Sea Baltic Connector of the Regions / Data Form

As mentioned in NSB CoRe project Data Form, the Eastern BSR is marked by low internal and external cohesion and accessibility. The question of accessibility is crucial in unrevealing the economic growth potential that can intensify business and labour mobility. Road transport and short sea shipping prevail while rail transport strives to gain momentum by the implementation of Rail Baltica.

As shown in the Study of the North Sea Baltic CNC (Proximare, 2014) the transport development in cross-border regions in Eastern BSR is lagging behind as the priority of transport development is typically targeted to the main urban nodes and routes. The biggest single missing link on NSB CNC is Rail Baltica from Tallinn, Riga, Kaunas towards Warsaw. New Rail Baltica (by mid2020's) will solve the North South missing link and create cohesion to the region.

In the Baltic countries the development of passenger rail services is challenged by the existing dependence on road transports. Smart transport solutions, multimodal mobile services and mobility as a service are among main tools towards intensified multimodality.

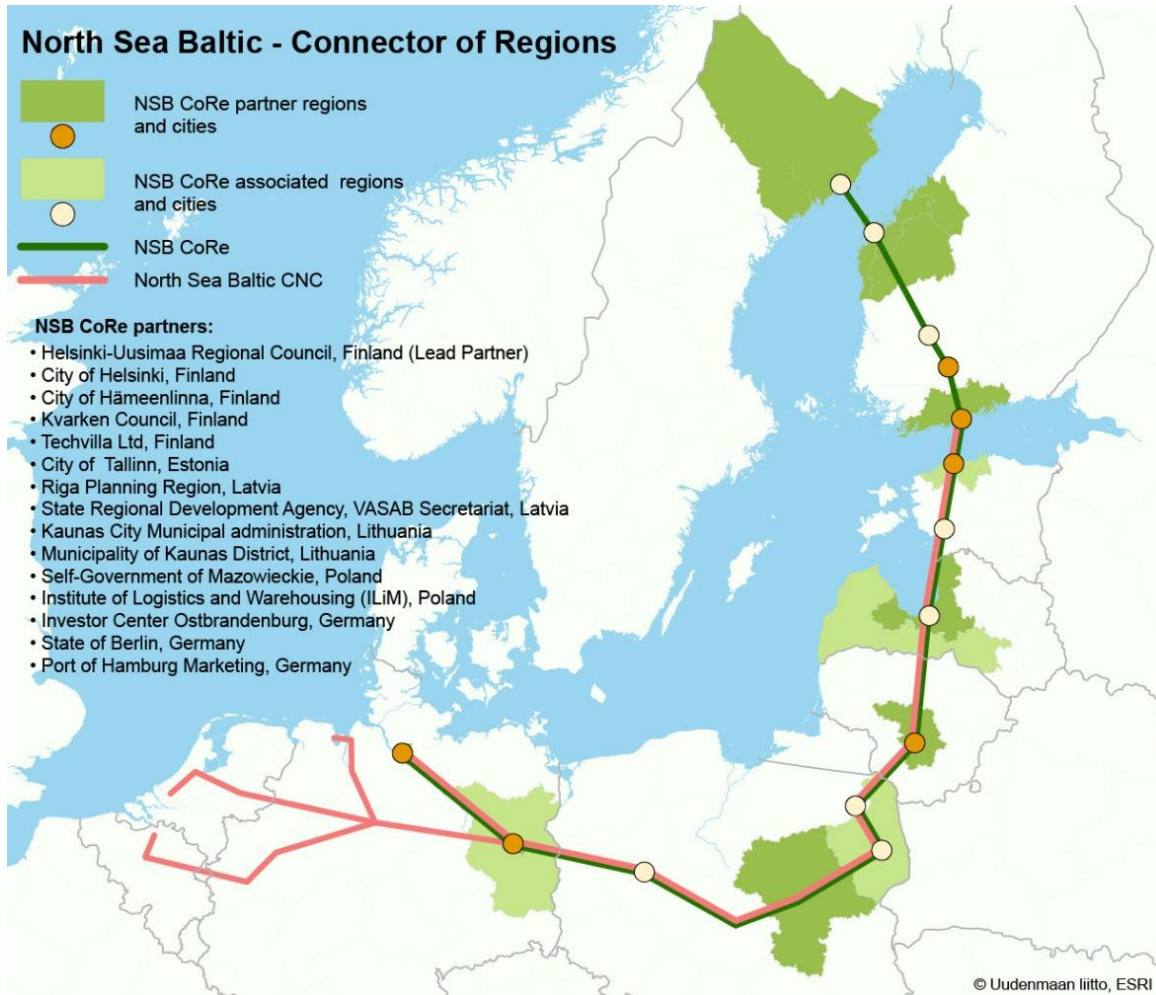


Figure 4.14. Schematic map of the NSB CoRe transport corridor and project partnership.

(23) Elaboration of a joint transnational spatial vision on regional development, logistics and mobility of the North Sea Baltic corridor within the framework of INTERREG VB project ‘North Sea Baltic connector of regions’ (NSB CoRe), Prepared by SAFEGE Baltija, June 2017

The document contains the background of the NSB CoRe project. Schematic map of the NSB CoRe transport corridor and project partnership is shown in the [Figure 4.14](#) above and project area in the context of joint transnational spatial vision in the [Figure 4.15](#) below.

The report presents SWOT analysis for the NSB CoRe area, which was prepared on the basis of the results of 3 workshops and detailed interviews with stakeholders. Advanced SWOT was ensured for separate parts of the Project areas. A list of persons interviewed and invited for interviews from all the participating countries of the project, including Estonia, Latvia and Lithuania is presented.

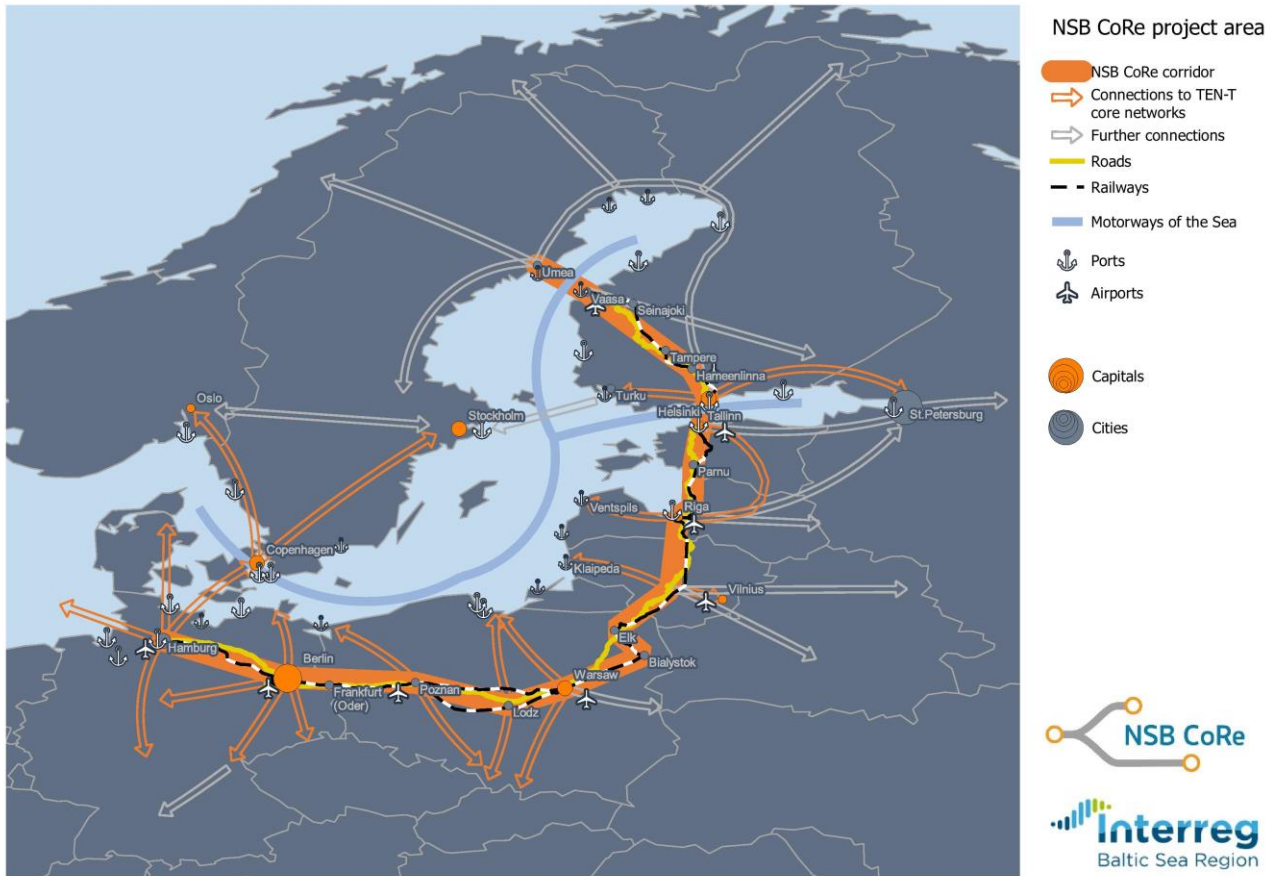


Figure 4.15. NSB CoRe project area in the context of joint transnational spatial vision.

Proposals for a common understanding of the North Sea – Baltic transport corridor main transport nodes and connections

As a result of the analysis of the listed documents and particularly cartographic materials considered in its, proposals were developed for a common understanding of the North Sea – Baltic transport corridor main transport nodes and connections, which are represented graphically (see [Figure 4.16](#) below). The main emphasis was placed on passenger transportation, at the same time, cargo transportation was also taken into account.

The proposals reflect 4 types of transport:

Rail: The planned Rail Baltica route and planned railway stations are presented, as well as the existing railway network, where international connections for passenger traffic are noted.

Road: Main and other international passenger bus connections are shown, additionally the main state roads with an international index are marked, as well as existing and planned bus stations.

Air: The map shows the location of international and national airports, as well as routes of international and other air connections.

Sea: The main and small ports of the Baltic countries.

The capitals of the Baltic countries, cities of national and regional importance are also noted.

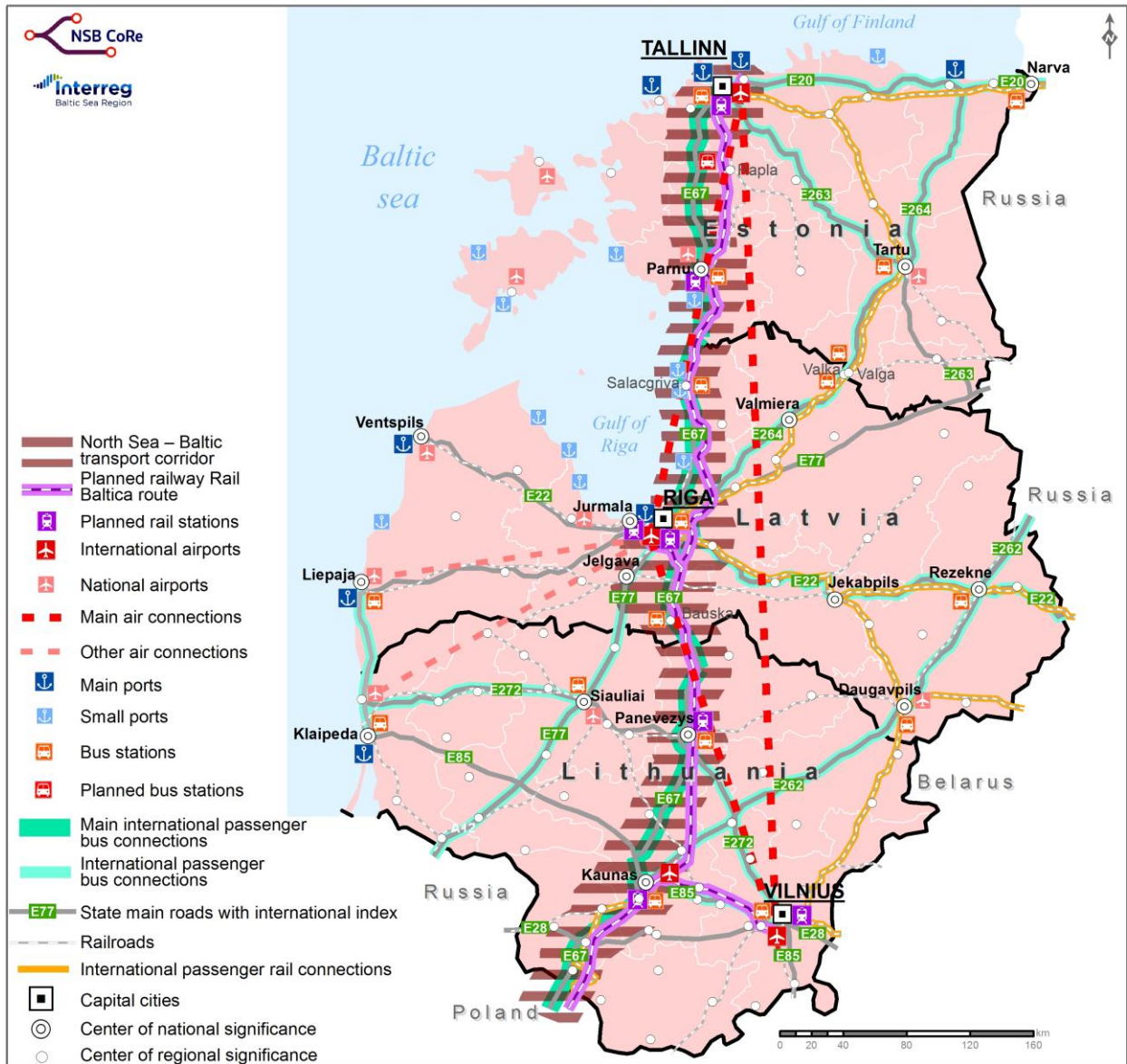


Figure 4.16. North Sea – Baltic transport corridor main transport nodes and connections.



5 Questionnaire development

Within the framework of the implementation of the Project activities concerning North Sea - Baltic corridor Baltics section, a survey of relevant stakeholders from Estonia, Latvia and Lithuania was conducted. The aim of the survey is to investigate the business needs and labour mobility along the Tallinn – Riga – Kaunas commuting growth corridor.

The questions of the questionnaire were formulated in such a way as to obtain a common stakeholders' understanding of Baltics section main nodal points and connections taking into account all modes of transport (road, rail, air, water) and the needs of business travellers and commuters.

Questionnaire includes surveys participants' information and the following standard and partially structured questions:

Information:

Country:

Suggested answer options:

- ✓ Estonia
- ✓ Latvia
- ✓ Lithuania
- ✓ Other

Type of organisation:

Suggested answer options:

- ✓ International organization
- ✓ State level
- ✓ Regional level
- ✓ Local level / Municipality
- ✓ Experts (academic, associations, etc.)
- ✓ Other

Name of organisation / expert:

Contact person (name, surname):

Contact information (e-mail, phone number):

Question 1.

Please estimate the potential benefits for your country/region regarding the North Sea – Baltic corridor development aims (*answers' range from very weak to very important*)

Suggested answer options:

- ✓ A powerful catalyst for sustainable growth in the region
- ✓ A new economic corridor will emerge
- ✓ A new standard of passenger and freight mobility
- ✓ New opportunities for multimodal freight logistics development
- ✓ New intermodal solutions for passenger



- ✓ Sustainable employment and educational opportunities
- ✓ An environmentally sustainable infrastructure
- ✓ Safety and performance improvements
- ✓ A new value platform for digitalization and innovation
- ✓ Integration in the European Union transport ecosystem

Question 2.

Please specify how would you describe the North Sea – Baltic (NSB) corridor (Baltics section) core network and catchment areas (*choose one most appropriate statement or define new one*)

Suggested answer options:

- ✓ NSB corridor`s core network is territory of all Baltic states and catchment areas are neighbouring countries
- ✓ NSB corridor core network is main transport connections in each Baltic country and catchment areas are peripheral territories East and West direction from corridor
- ✓ NSB corridor core network is connections from Tallinn – Riga – Kaunas (with extension to Vilnius) and catchment areas are territories along main corridor axis
- ✓ Other

Question 3.

Please specify the current state of your country/region passenger transport system by transportation modes along North Sea – Baltic corridor (*answers` range from very weak to very good*)

Suggested answer options:

- ✓ Road
- ✓ Railway
- ✓ Maritime
- ✓ Air

Question 4.

Please define passenger transport modes ensuring fast and convenient CROSS-BORDER and INTERNATIONAL CONNECTIONS along the North Sea – Baltic corridor from your country/region perspective (*answers` range from very weak to very good*)

Suggested answer options:

- ✓ Road
- ✓ Railway
- ✓ Maritime
- ✓ Air

Please define passenger transport modes ensuring fast and convenient INTERREGIONAL CONNECTIONS (within your country) along the North Sea – Baltic corridor from your country/region perspective (*answers` range from very weak to very good*)

Suggested answer options:

- ✓ Road
- ✓ Railway
- ✓ Maritime
- ✓ Air



Question 5.

Please indicate the most important existing and perspective nodal points for business travelers and commuters on the North Sea – Baltic corridor CORE NETWORK in ESTONIA (*select multiple answers, add other answers if necessary*)

Suggested answer options:

- ✓ Tallinn
- ✓ Parnu
- ✓ Rapla
- ✓ Marjamaa
- ✓ Other:

Please indicate the most important existing and perspective nodal points for business travelers and commuters on the North Sea – Baltic corridor CORE NETWORK in LATVIA (*select multiple answers, add other answers if necessary*)

Suggested answer options:

- ✓ Riga
- ✓ Bauska
- ✓ Iecava
- ✓ Salaspils
- ✓ Saulkrasti
- ✓ Salacgriva

Please indicate the most important existing and perspective nodal points for business travellers and commuters on the North Sea – Baltic corridor CORE NETWORK in LITHUANIA (*select multiple answers, add other answers if necessary*)

Suggested answer options:

- ✓ Kaunas
- ✓ Vilnius
- ✓ Panevezys
- ✓ Pasvalys
- ✓ Marijampole
- ✓ Other:

Question 6.

Please indicate the most important existing and perspective nodal points for business travellers and commuters in the North Sea – Baltic corridor CATCHMENT AREA in ESTONIA (*select multiple answers, add other answers if necessary*)

Suggested answer options:

- ✓ Tartu
- ✓ Narva
- ✓ Valga
- ✓ Paide
- ✓ Rakvere
- ✓ Haapsalu
- ✓ Kuressaare
- ✓ Other:



Please indicate the most important existing and perspective nodal points for business travelers and commuters in the North Sea – Baltic corridor CATCHMENT AREA in LATVIA (*select multiple answers, add other answers if necessary*)

Suggested answer options:

- ✓ Liepaja
- ✓ Ventspils
- ✓ Rezekne
- ✓ Daugavpils
- ✓ Jekabpils
- ✓ Valmiera
- ✓ Valka
- ✓ Other:

Please indicate the most important existing and perspective nodal points for business travellers and commuters in the North Sea – Baltic corridor CATCHMENT AREA in LITHUANIA (*select multiple answers, add other answers if necessary*)

Suggested answer options:

- ✓ Siauliai
- ✓ Mazeikiai
- ✓ Klaipeda
- ✓ Utena
- ✓ Ukmerge
- ✓ Alytus
- ✓ Other:

Question 7.

Please characterize the relevance of the North Sea – Baltic corridor development for the improvement of life quality in your country/region (*select 5 most important answers*)

Suggested answer options:

- ✓ Residential preferences
- ✓ Mobility and accessibility
- ✓ Health services
- ✓ Tourism / Recreation
- ✓ Public services / Shopping
- ✓ Education
- ✓ Purchasing power and employment
- ✓ Housing
- ✓ Social environment
- ✓ Natural environment
- ✓ Business development

Question 8.

Please indicate main existing functionality between the North Sea – Baltic corridor core network main city in ESTONIA (TALLINN) and 2nd LEVEL NODES located in its surrounding area (*select one most relevant answer for each node*)



Cities:

- ✓ Paldiski
- ✓ Keila
- ✓ Saue
- ✓ Kehra
- ✓ Maardu

Functionality:

- ✓ Labour mobility / Business relations
- ✓ Education / Culture
- ✓ Public services / Shopping
- ✓ Tourism / Recreation

Please indicate main existing functionality between the North Sea – Baltic corridor core network main city in LATVIA (RIGA) and 2nd LEVEL NODES located in its surrounding area (*select one most relevant answer for each node*)

Cities:

- ✓ Tukums
- ✓ Jelgava
- ✓ Ogre
- ✓ Sigulda

Functionality:

- ✓ Labour mobility / Business relations
- ✓ Education / Culture
- ✓ Public services / Shopping
- ✓ Tourism / Recreation

Please indicate main existing functionality between the North Sea – Baltic corridor core network main city in LITHUANIA (KAUNAS with extension to VILNIUS) and 2nd LEVEL NODES located in its surrounding area (*select one most relevant answer for each node*)

Cities:

- ✓ Jonava
- ✓ Kedainiai
- ✓ Elektrenai
- ✓ Lentvaris
- ✓ Prienai
- ✓ Garliava

Functionality:

- ✓ Labour mobility / Business relations
- ✓ Education / Culture
- ✓ Public services / Shopping
- ✓ Tourism / Recreation

Question 9.

Please describe the examples of road and rail connections in your country/region the current state of which poses the challenges for the integration of transport network to the corridor from the macro-regional perspectives on the North Sea – Baltic core corridor and within catchment areas (*open question*)

Question 10.

Please specify your country/region needs for development of cargo transportation infrastructure (*answers' range from very weak to very important*)

Suggested answer options:

- ✓ Road
- ✓ Rail
- ✓ Maritime
- ✓ Air
- ✓ Logistic centres
- ✓ Container terminals
- ✓ Parking places

Question 11.

Please estimate new opportunities for multimodal logistics development in your country/region (*select 3 most important answers, add other answer if necessary*)

Suggested answer options:

- ✓ Intermodal & multimodal logistics
- ✓ Competitive transportation rates
- ✓ Division of labour
- ✓ Diversified Baltic freight industry
- ✓ Cargo flow development
- ✓ Technical solutions
- ✓ "Just - in - time" process
- ✓ Other:

Question 12.

How would you characterise aspects encouraging the passenger mobility for business travellers and commuters (*answers' range from very weak to very important*)

Suggested answer options:

- ✓ Connectivity
- ✓ Frequency of transport
- ✓ Transit time, punctuality
- ✓ Quality of pre-trip service (accessibility)
- ✓ Quality of on-trip service
- ✓ Well-equipped stations (hubs) and stopping points
- ✓ Access to the European railways connections
- ✓ Positive overall passenger experience

Question 13.

Please choose the most important perspective transport solutions for passenger flow development regarding BUSINESS TRAVELLERS (*select 3 most important answers, add other answer if necessary*)

Suggested answer options:

- ✓ Links with central business districts
- ✓ Connections with airports
- ✓ Connections with ports



- ✓ Seamless travel
- ✓ Pan-Baltic connections
- ✓ Traceable door-to-door package
- ✓ Integration hubs
- ✓ Integrated passenger travel solutions
- ✓ Other:

Please choose the most important perspective transport solutions for passenger flow development regarding COMMUTERS (*select 3 most important answers, add other answer if necessary*)

Suggested answer options:

- ✓ Links with central business districts
- ✓ Connections with airports
- ✓ Connections with ports
- ✓ Seamless travel
- ✓ Pan-Baltic connections
- ✓ Traceable door-to-door package
- ✓ Integration hubs
- ✓ Integrated passenger travel solutions
- ✓ Other:

Question 14.

Please express your opinion how Rail Baltica project will stimulate the economic development in the country/region (*answers' range from very weak to very important*)

Suggested answer options:

- ✓ Catalytic effect for the Baltic Sea region
- ✓ Regional integration
- ✓ Secondary economic effect / participation in the project implementation
- ✓ New supply chains

Question 15.

Please estimate the Rail Baltica project stimulation effect on the sustainable economic development (*select 3 most important answers, add other answer if necessary*)

Suggested answer options:

- ✓ Urban networking
- ✓ New forms of urban-rural cooperation
- ✓ Cross-border cooperation
- ✓ Transbaltic cooperation
- ✓ Business development
- ✓ Investments
- ✓ Entrepreneurship development
- ✓ Employment enhancement
- ✓ Other

Question 16.

Please estimate the employment and educational opportunities encouraged by the Rail Baltica project development (*select 3 most important answers, add other answer if necessary*)



Suggested answer options:

- ✓ Boost to employment
- ✓ Labour market connectivity
- ✓ Migration of railway professionals
- ✓ Opportunities for a modal shift
- ✓ Regional centres of competence
- ✓ Cross-border centres of competence
- ✓ Other

Question 17.

Please estimate main social benefits from the Rail Baltica project implementation (*answers' range from very weak to very important*)

Suggested answer options:

- ✓ Better access to study/work place
- ✓ Ability to perform services on regional level
- ✓ Better tourism opportunities
- ✓ Increased opportunities for culture, entertainment, shopping on pan-Baltic level
- ✓ Better access to healthcare institution

Question 18.

Please define who will benefit from the Rail Baltica project implementation (*select 3 most important answers, add other answer if necessary*)

Suggested answer options:

- ✓ Community
- ✓ Large businesses
- ✓ Small and medium enterprises
- ✓ Universities and students
- ✓ Business travellers
- ✓ Tourists
- ✓ Other

Question 19.

Please estimate how the North Sea – Baltic corridor overall development will influence the improvement of safety and performance (*answers' range from very weak to very important*)

Suggested answer options:

- ✓ Centre-to-centre travel
- ✓ Road safety
- ✓ Travel time saving
- ✓ Safe transport modes
- ✓ Productive travel time
- ✓ Urban traffic congestion

Question 20.

Do you have any questions or comments regarding the NSB CoRe (North Sea – Baltic Connector of Regions) project or about this questionnaire? (**open question**)



The questionnaire was developed in the format of an intermodal survey form common to all stakeholders.

6 Identification of stakeholders opinions

Spatial analysis survey was held in June-July 2017 in order to identify the opinion of stakeholders from Estonia, Latvia, Lithuania relating to the North Sea – Baltic transport corridor development in frames of the “Spatial structure and the transport system along Tallinn – Riga – Kaunas commuting growth corridor” report preparation.

This questionnaire was disseminated to national, regional and local level stakeholders and experts in Estonia, Latvia and Lithuania connected to North Sea – Baltic corridor development issues.

All stakeholders were sent letters by Riga Planning Region with information about the NSB CoRe (North Sea – Baltic Connector of Regions) project, the aim of the survey, its dissemination and results presentation and a link to the developed intermodal survey form. The deadline for responding was also defined in the letter.

A part of stakeholders was contacted by phone to discuss the Project and to activate the process of the survey form filling. At the end of the term, the stakeholders’ list was updated and the letters were sent once again taking into account the summer period. Some stakeholders were also contacted by phone.

Response rate to an invitation to participate in an interview reached 33% and can be considered as medium. The sampling of answers is sufficient for data processing.

During planning of the survey 127 stakeholders in Estonia, Latvia and Lithuania were specified as the target audience. Survey data is reflected in [Table 1](#).

[Table 1. Survey data / Estonia, Latvia, Lithuania.](#)

Country	Number of stakeholders	Target, number	Responses, number	Difference, %	Response rate, %
Estonia	41	10	16	+ 60	39,0
Latvia	42	10	16	+ 60	38,1
Lithuania	44	10	10	-	22,7
Total	127	30	42	+ 40	33,1

The total number of respondents exceeds the planned level by 40%, which is due to a more active participation in the survey of representatives from Estonia and Latvia (+ 60% each). Total survey response rate is medium due to high response rate indicators of Estonian and Latvian stakeholders

The list of interviewed stakeholders is presented in the [Table 2](#).

Table 2. The list of interviewed stakeholders / Estonia, Latvia, Lithuania.

ESTONIA				
No	Institution	Name, surname	Position	Contacts
Project partners				
1.	Tallinn Transport Department	Liivar Luts	Project Coordinator	liivar.luts@tallinnlv.ee
2.	Tallinn City Planning Department	Jaak-Adam Looveer	Spatial Planner	jaak-adam.looveer@tallinnlv.ee
Project associated partners				
3.	Harju County Government	Kaarel Kose	Councillor of Development and Planning Department	kaarel.kose@harju.maavalitsus.ee
4.	City of Pärnu	Kaido Koppel	Head of Planning Department	kaido.koppel@lv.parnu.ee
Other stakeholders				
Regional public authorities				
5.	Pärnu County Government	Tiiu Pärn	Head of Planning Division	tiiu.parn@parnu.maavalitsus.ee
Local public authorities				
6.	City of Maardu	Silvia Riige	Head of Development and Planning Department	silvia.riige@maardu.ee
7.	Jõelähtme municipality	Priit Põldma	Deputy Mayor of Municipality	priit.poldma@joelahtme.ee
8.	Järvakandi municipality	Mart Järvik	Mayor of Municipality	mart@jarvakandi.ee
9.	Raikküla municipality	Tiit Olju	Land and environmental advisor	tiit.olju@raikkyla.ee
10.	Rapla municipality	Meelis Mägi	Head of Construction and Planning Department	meelis.magi@rapla.ee rapla@rapla.ee
11.	Kohila municipality	Argo Luik	Deputy mayor of Municipality	argo.luik@kohila.ee
12.	Häädemeeste municipality	Merle Looring	Constuction and environmental advisor	merle.looring@haademeeste.ee
13.	Tahkuranna municipality	Karel Tõlp	Mayor of Municipality	karel.tolp@tahkuranna.ee
14.	Tootsi municipality	Riina Kukk	Mayor of Municipality	vallavanem@tootsi.ee
15.	Kuressaare municipality	Mart Mäeker	Deputy mayor Construction and Planning Department	mart.maeker@kuressaare.ee
Other (Associations, Companies)				
16.	Port of Tallinn	Hele-Mai Metsal	Head of Development Department	h.metsal@ts.ee

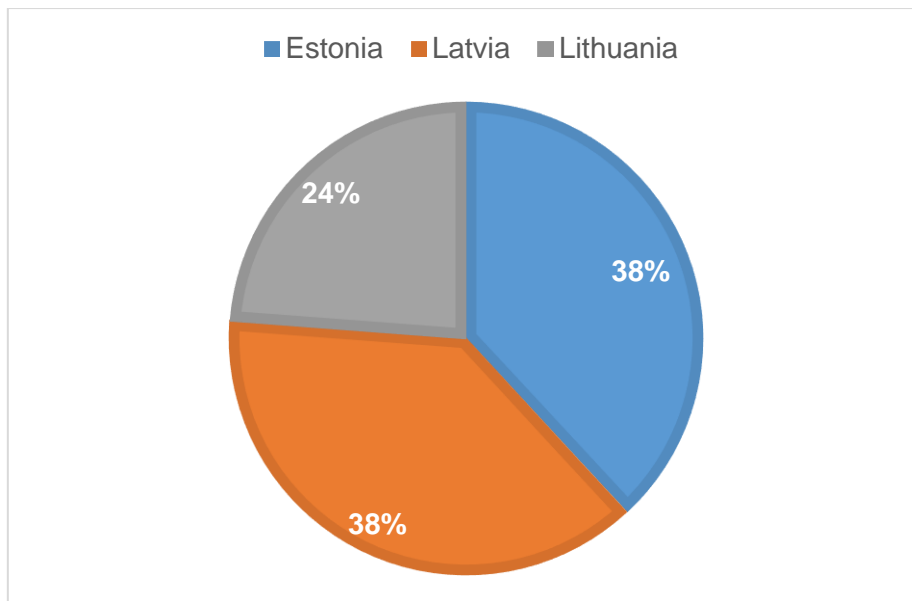
LATVIA				
No	Institution	Name, surname	Position	Contacts
Project partners				
17.	Riga Planning Region	Marcis Zicmanis	Project Coordinator	marcis.zicmanis@rpr.gov.lv
18.		Rudolfs Cimdins	Head of Spatial Planning Unit, Project Expert	rudolfs.cimdins@rpr.gov.lv
19.		Sabine Zagere	Spatial Planning Specialist	sabine.zagere@rpr.gov.lv
20.	VASAB Secretariat	Liene Stikane	Spatial Planner	liene.stikane@vasab.org
Project associated partners				
21.	Ministry of Transport	Inta Rozensteine	Deputy Director of Department of Finance and Development Planning	inta.rozensteine@sam.gov.lv
22.		Sergejs Lukins	Senior Officer of Transit Policy Department	sergejs.lukins@sam.gov.lv
23.	Kurzeme Planning Region	Ginta Gotfridsone	Spatial Planner	ginta.gotfridsone@kurzemesreģions.lv
24.	Riga City	Vilnis Salenieks	City Development Department Territorial Planning Division	vilnis.salienieks@riga.lv
Other stakeholders				
Regional public authorities				
25.	Vidzeme Planning Region	Andzejs Stepancuks	Spatial Planning Expert	andzejs.stepancuks@vidzeme.lv
Local public authorities				
26.	Salacgriva County Council	Kaspars Kemers	Executive Director Assistant	kaspars.kemers@salacgriva.lv
27.	Sigulda County Council	Inga Zalite	Real estate, construction and investment unit	inga.zalite@sigulda.lv
28.	Bauska County Council	Ilze Tijone	Head of Development and Planning Unit	ilze.tijone@bauska.lv
Other (Associations, Companies)				
29.	Latvian Railways	Evita Breca	Development Division	evita.breca@ldz.lv
30.	STS Consulting SIA	Natalja Sterhova	Transport and logistics expert	nsterhova@gmail.com
31.	Latvian Spatial Planning Association	Pauls Grants	Spatial Planner, Cartographer	pauls@planosana.lv
32.	Transport and Telecommunication Institute	Igor Kabashkin	Professor, Transport and Logistics expert	kiv@tsi.lv

LITHUANIA				
No	Institution	Name, surname	Position	Contacts
Project partners				
33.	Kaunas city Municipal Administration	Mindaugas Augustaitis	Deputy Head of Transport Division, Project Expert	mindaugas.augustaitis@kaunas.lt
34.	Kaunas District Municipality	Jonas Sakalavičius	Transport Division, Project Expert	jonas.sakalavicius@krs.lt
Project associated partners				
35.	JS Lithuanian Railways	Saulius Poškus	Chief Economist of "Rail Baltica" Project Directorate	s.poskus@litrail.lt
36.		Sigitas Kubilis	Deputy Director of Development Department-Head of Development Division	s.kubilis@litrail.lt
Other stakeholders				
<i>National public authorities</i>				
37.	Ministry of Transport and Communications Republic of Lithuania	Nerijus Kaučikas	Deputy director, Department of International Relations and Development	nerijus.kaucikas@sumin.lt
<i>Regional public authorities</i>				
38.	Panevezys County (Apskritis)	Jonas Streikus	Chief Specialist	jonas.streikus@vrm.lt
39.	Association Klaipeda Region	Klaudija Kionies	Managing Director	info@klaipedaregion.com
<i>Local public authorities</i>				
40.	Marijampole city Municipality	Darius Cinaitis	Head of Planning and Investment Division	darius.cinaitis@marijampole.lt
<i>Other (Associations, Companies)</i>				
41.	UAB "Rail Baltica statyba"	Karolis Sankovski	Executive director	k.sankovski@litrail.lt
42.		Mantas Kaušylas	Deputy director	m.kausylas@litrail.lt

7 Processing of opinions and data collected during survey

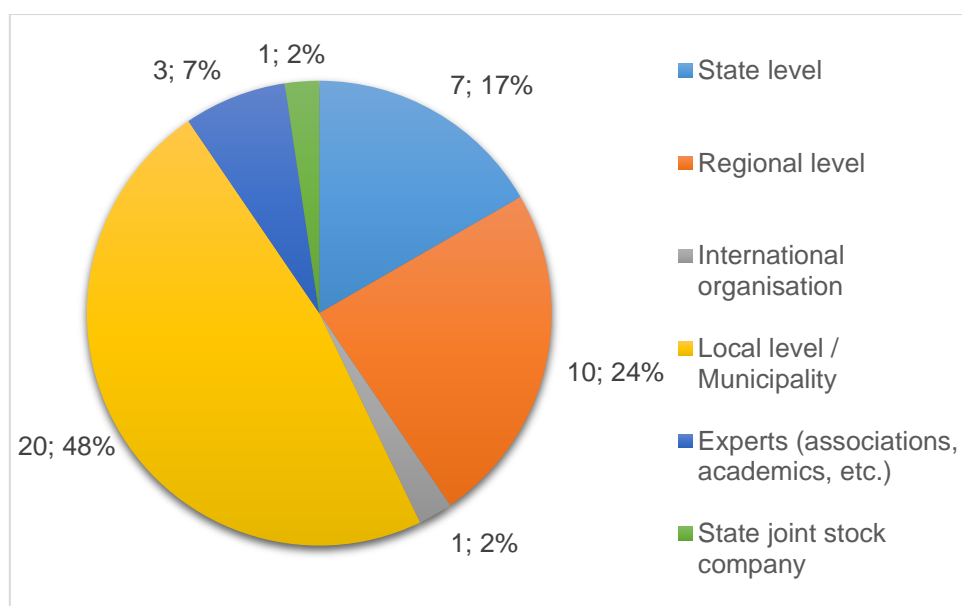
According to the results of the survey, data and opinions of stakeholders were processed (statistic analysis). The report presents both the general opinion of all stakeholders and the separate opinion on individual survey's questions of stakeholders from Estonia, Latvia, Lithuania. The opinion of the representatives of different categories are presented in more detail.

The share of the representatives of Estonia, Latvia and Lithuania participating in the survey is shown in [Diagram 1](#).



[Diagram 1](#). Share of the representatives from the Baltic States (%)

The overall distribution of respondents by type of organization is presented in [Diagram 2](#) below.



[Diagram 2](#). Distribution of respondents by type of organization (number of representatives, %).

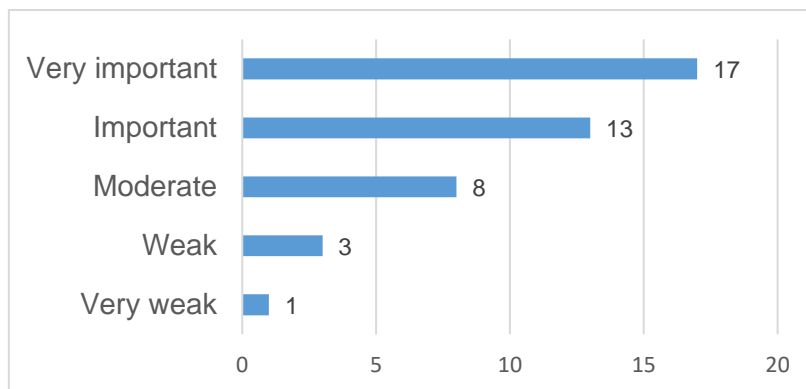
According to the general results of the survey, representatives of the Local level / Municipality were the most active group, the share of their answers was almost half (48%) of the total number. This high rate was achieved due to the responses level of the category's stakeholders from Estonia - 75% of the total number of responses, data for Latvia and Lithuania were significantly lower - 31.2% and 30.0% respectively.

The share of representatives of the Regional level category in Latvia was at the same level of 31.2%, while in Estonia and Lithuania it was lower (19% and 20%). The state level was highly represented in Lithuania - 40% of all answers, in Latvia 12.5%, and in Estonia only 6.0% of the answers. 3 experts expressed their opinion on the development of the trans-corridor corridor: 2 from Latvia and 1 from Lithuania.

Surveys' **Question 1** offered to estimate the potential benefits for respondent's country/region regarding the North Sea – Baltic corridor development aims. Answers were ranged from Very weak to Very important.

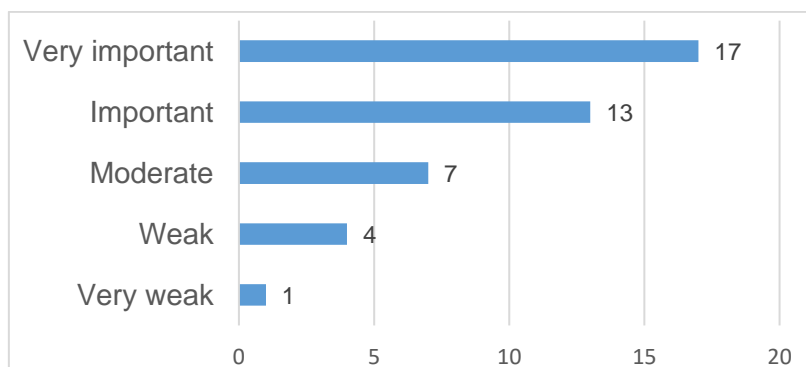
The opinions on the proposed answers were distributed as follows (diagrams below):

- ✓ A powerful catalyst for sustainable growth in the region



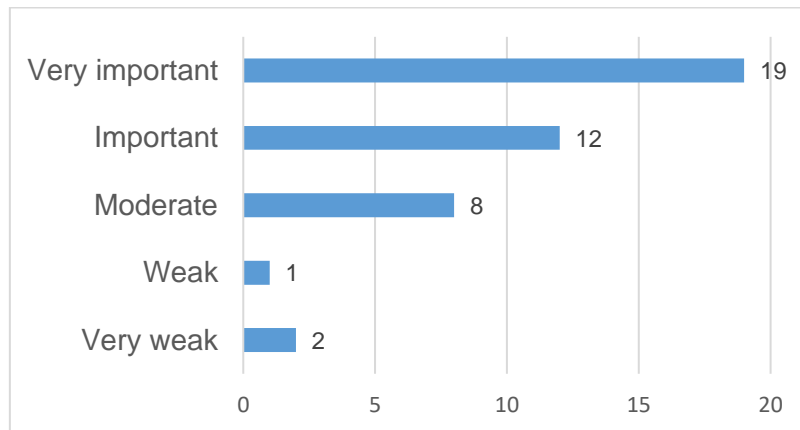
More than 71% of the total number of respondents rated this benefit above the average level (Important & Very important). And in Estonia only 56.3% stakeholders estimated the position above the average level, but in Latvia - 81.3% and in Lithuania - 80.0%. It is worth noting that the total number of respondents evaluated this benefit as Very important distributed between stakeholders as follows: Estonia - 25%, Latvia - 37.5%, Lithuania - 70.0%.

- ✓ A new economic corridor will emerge



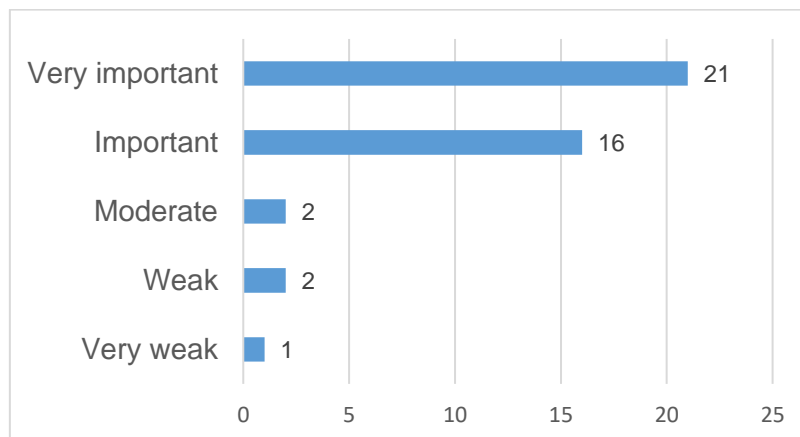
Stakeholders in general expressed their opinion on this benefit almost at the level of the previous question - also more than 71% of respondents rated the benefit above the average. In comparison with the answers to the previous question, one respondent from Estonia and one from Lithuania additionally estimated this benefit so highly, but 2 respondents from Latvia reduced their assessment.

- ✓ A new standard of passenger and freight mobility



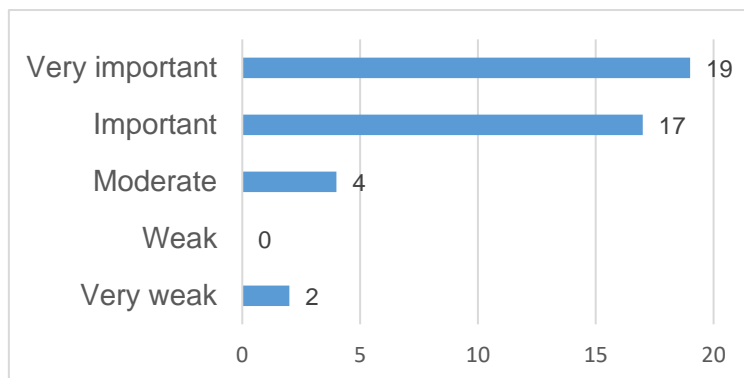
The evaluation of this benefit almost turned out to be slightly higher than the previous ones - 73.8% of the respondents highly estimated its importance in the development of the country / region. The ratio of answers for the countries participating in the survey remained at the level of the previous answer.

- ✓ New opportunities for multimodal freight logistics development



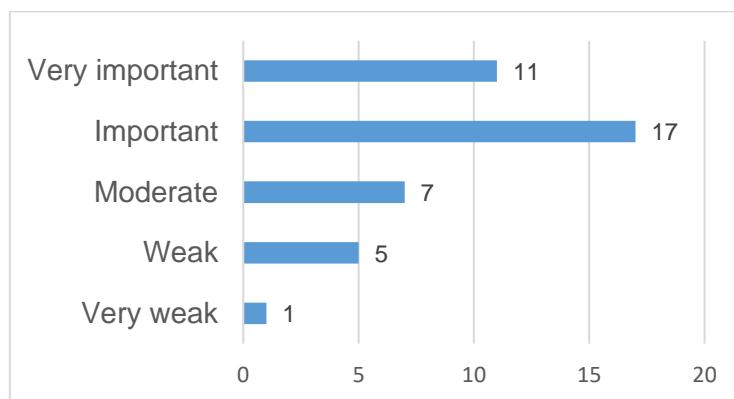
This benefit received champion ratings of stakeholders. More than 88% of survey participants identified its level as Important or Very important. For respondents from Estonia and Lithuania the figure is even higher - 93.8% and 90.0% respectively, from Latvia - 81.0%. At the same time 2 respondents from Latvia marked this benefit as Weak.

✓ New intermodal solutions for passenger



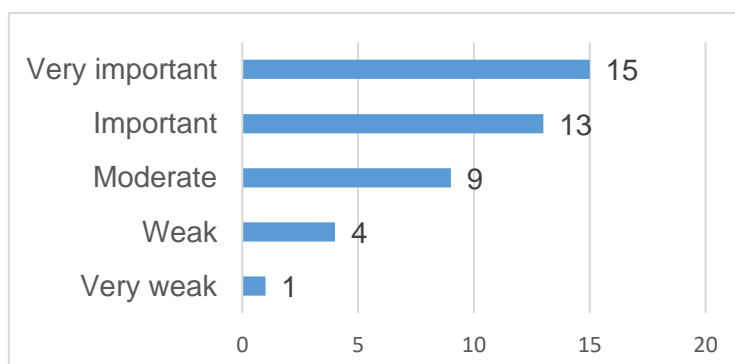
This benefit was also highly appreciated among the stakeholders: 85.7% of the respondents rated it above the average. Respondents from three countries estimated this benefit almost at the same level.

✓ Sustainable employment and educational opportunities



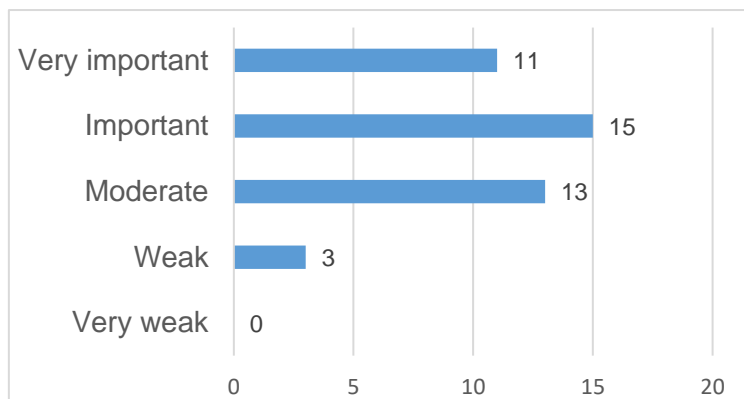
This benefit was marked by respondents significantly lower than the previous ones: only two thirds of them highly appreciated it. At the same time, 14.3% rated it as Weak or Very weak.

✓ An environmentally sustainable infrastructure



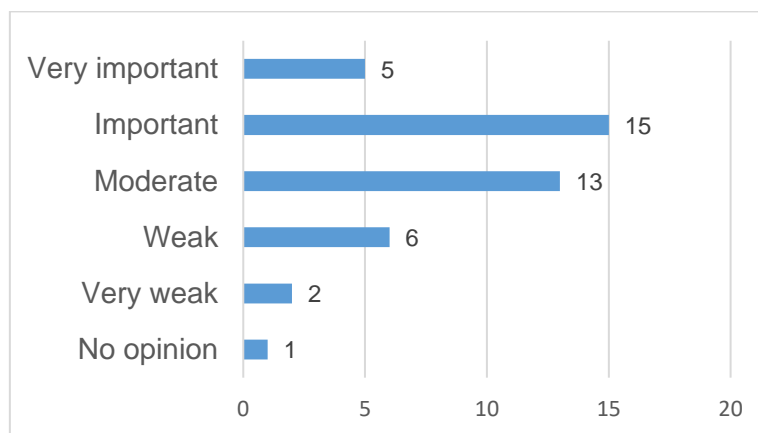
Highly appreciated this benefit, like the previous one, also 2/3 survey participants. The highest figure in this case was demonstrated by stakeholders from Latvia - 81.3%, Estonia - 62.5% and only 50% of respondents from Lithuania rated this benefit as Important or Very important.

✓ Safety and performance improvements



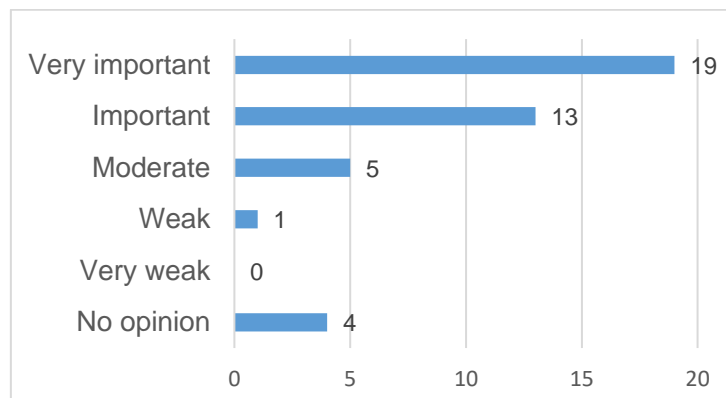
61.9% of the respondents gave a high rating to the benefit. At the same time, the highest percentage of stakeholders (31.0%) rated this benefit and the next benefit as Moderate.

✓ A new value platform for digitalization and innovation



This benefit was determined by participants in the survey at a fairly low level. Less than half rated it above the average and 21.4% - as Weak or Very weak: 2, 3 and 3 stakeholders respectively from Estonia, Latvia and Lithuania.

✓ Integration in the European Union transport ecosystem



The final benefit of the survey' first question was highly appreciated by its participants: 76.2% identified it as Important or Very important. 9.5% of stakeholders at the moment did not form a definite opinion on this benefit.

Question 2 concerned the description of the North Sea – Baltic (NSB) corridor (Baltics section) core network and catchment areas. The answers of the survey participants were as follows, as shown in [Table 3](#).

[Table 3](#). Description of the North Sea – Baltic (NSB) corridor (Baltics section) core network and catchment areas.

Nr.	Response variants	Number of responses	%
1.	NSB corridor`s core network is territory of all Baltic states and catchment areas are neighbouring countries	10	23,8
2.	NSB corridor core network is main transport connections in each Baltic country and catchment areas are peripheral territories East and West direction from corridor	15	35,7
3.	NSB corridor core network is connections from Tallinn – Riga – Kaunas (with extension to Vilnius) and catchment areas are territories along main corridor axis	14	33,3
4.	NSB corridor core network is the territories along the corridor + the urban nodes on the corridor and the catchment area is the main transport connections in the Baltic countries that intersect with the core corridor	1	2,4
5.	NSB corridor core network is connections from Tallinn – Riga – Kaunas (with extension to Vilnius) and catchment areas are territories along main corridor axis and neighbouring countries	1	2,4
6.	NSB corridor core network is development area with high potentials in relation with comprehensive mobility solutions and catchment areas are territories surrounded main corridor axis that can be positively affected in terms of development.	1	2,4

The first 3 answers listed in the table above were defined in the questionnaire as the basic answers, the survey participants selected a second and a third option at practically the same level. The questionnaire was supplemented by 3 variants of answers by respondents from Latvia.

Question 3 offered to specify the current state of respondent's country/region passenger transport system by transportation modes along North Sea – Baltic corridor. Answers were ranged from Very weak to Very good. Stakeholders' responses are categorized in [Table 4](#).

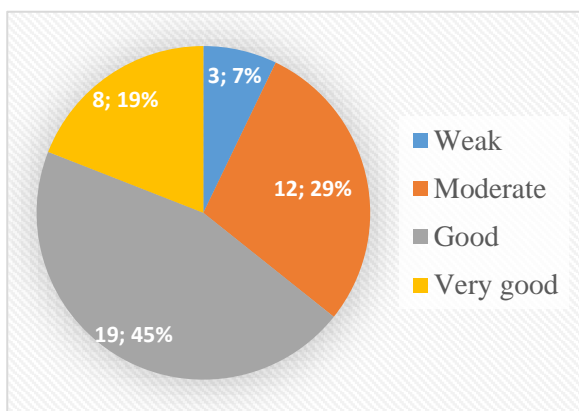
[Table 4](#). Estimation of the current state of respondent's country/region passenger transport system by transportation mode.

Transportation mode	Very good	Good	Moderate	Weak	Very weak	No option
Road	4	21	14	2	1	
Rail	1	2	4	24	8	3
Maritime	4	4	11	10	9	4
Air	7	14	11	5	4	1

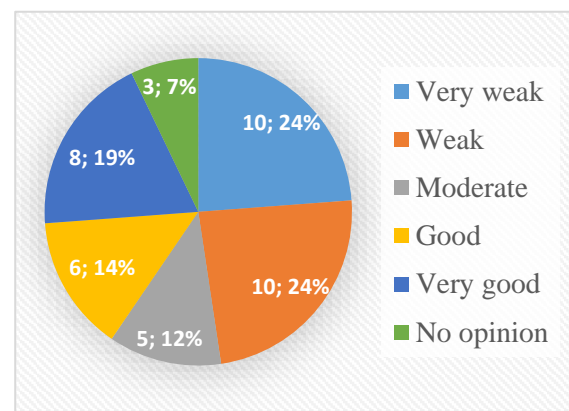
Respondents highly appreciated road transportation mode and rated low rail transportation mode. 75% of the respondents from Estonia and Latvia defined as Weak and Very weak current state of rail transportation node, respondents from Lithuania were even more categorical – 80% marked low level of the transportation node. Maritime and air transportation nodes we estimated at medium level, at the same time maritime node was rated lower.

The **first part of the Question 4** asked to define passenger transport modes ensuring fast and convenient cross-border and international connections along the North Sea – Baltic corridor from respondent’s country/region perspective. Answers were ranges from Very weak to Very good and are presented as follows.

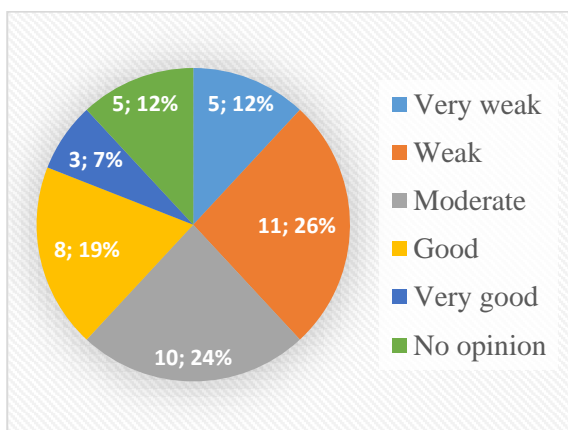
Road (number of responses, share)



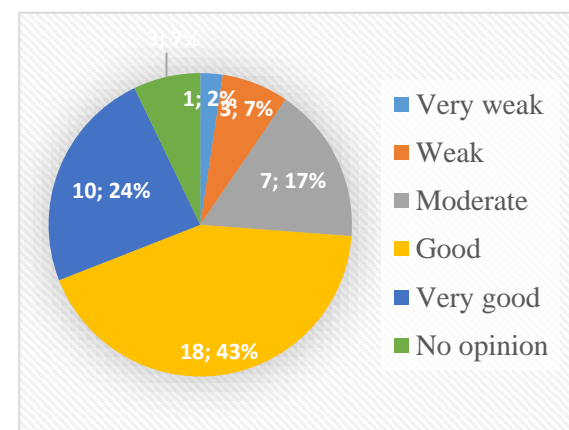
Railway (number of responses, share)



Maritime (number of responses, share)



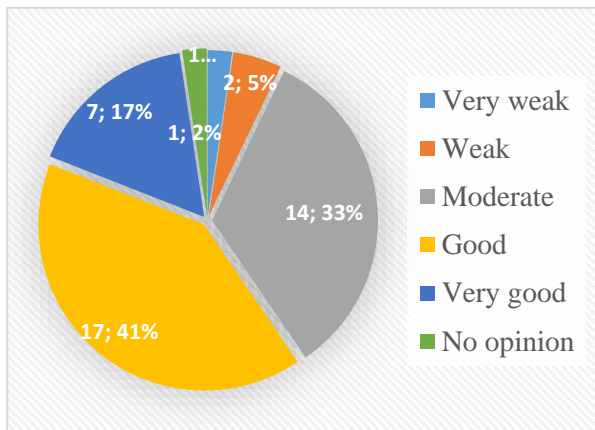
Air (number of responses, share)



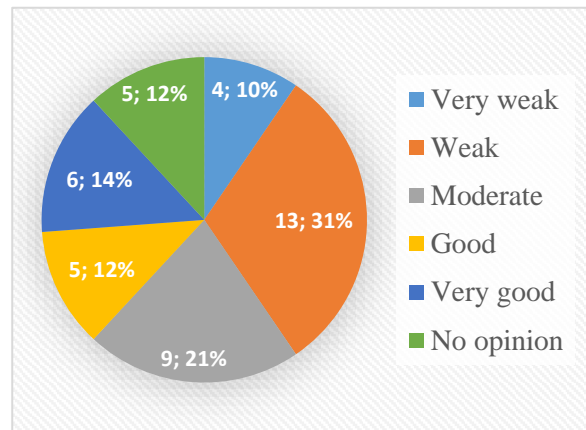
For fast and convenient cross-border and international connections along the North Sea – Baltic corridor stakeholders preferred road (64% of respondents noticed the mode as Very good and Good) and air (67% of respondents noticed also the mode as Very good and Good) passenger transport nodes. In what connection if respondents’ relation to the road mode is stable (only 3 stakeholders marked as Weak and no one as Very weak), relating air transport mode 3 persons have no opinion and 4 persons defined the mode as Weak and Very weak. Responses relating rail and maritime passenger transport modes were distributed fairly well without significant peaks.

The **second part of the Question 4** offered to define passenger transport modes ensuring fast and convenient interregional connections (within respondents' country) along the North Sea – Baltic corridor from their country/region perspective. Answers were also ranges from Very weak to Very good. The responses are presented as follows.

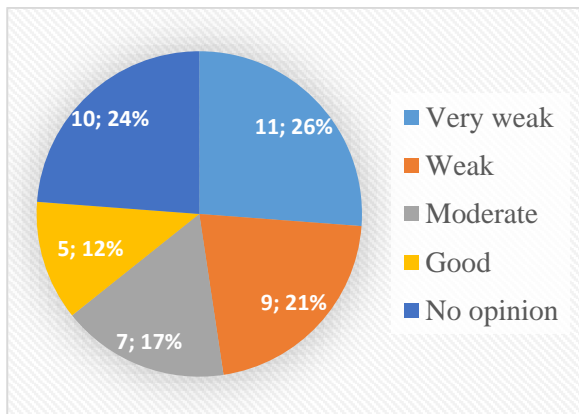
Road (number of responses, share)



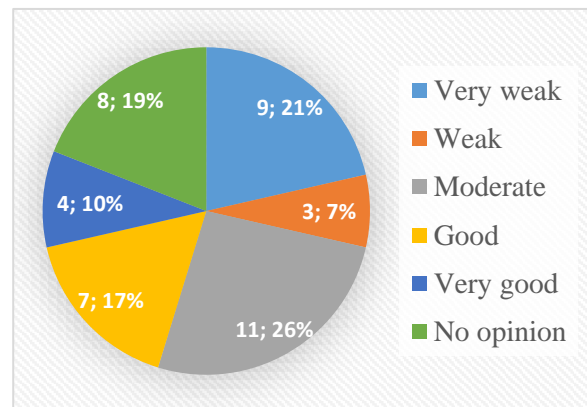
Railway (number of responses, share)



Maritime (number of responses, share)



Air (number of responses, share)



The road passenger transport mode kept its strong position in interregional connections as well as in cross-border and international connection along the North Sea – Baltic corridor. Less than 10% of survey participants mark the transport mode negatively (Weak, Very weak or no option). At the same time the air mode lost its leading position in comparison with the first part of the question results. 20 stakeholders or 47,6% of total survey participants marked negatively the mode. The respondents were brave in their negative estimation: 71,4% of them noticed in this way the maritime mode and 52,4% - the rail mode.

Question 5 proposed to indicate the most important existing and perspective nodal points for business travellers and commuters on the North Sea – Baltic corridor **core network** in Estonia, Latvia and Lithuania. The basic nodal points were defined and stakeholders we invited to add points. Respondents' opinion is indicated in [Diagrams 3-5](#).

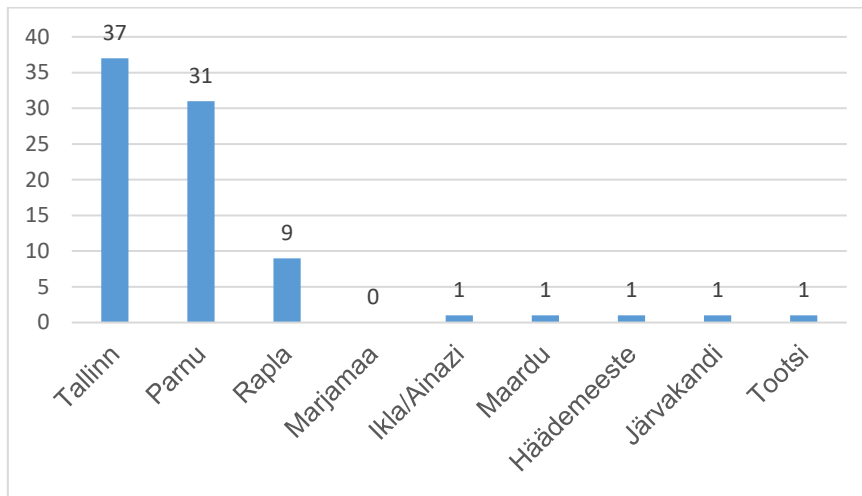


Diagram 3. The most important nodal points in Estonia (number of respondents).

In addition to the suggested points Tallinn, Parnu, Rapla and Marjamaa, 5 respondents from Estonia also indicated Ikla/Ainazi, Maardu, Häädemeeste Järvakandi and Tootsi. In total 38 responses were received.

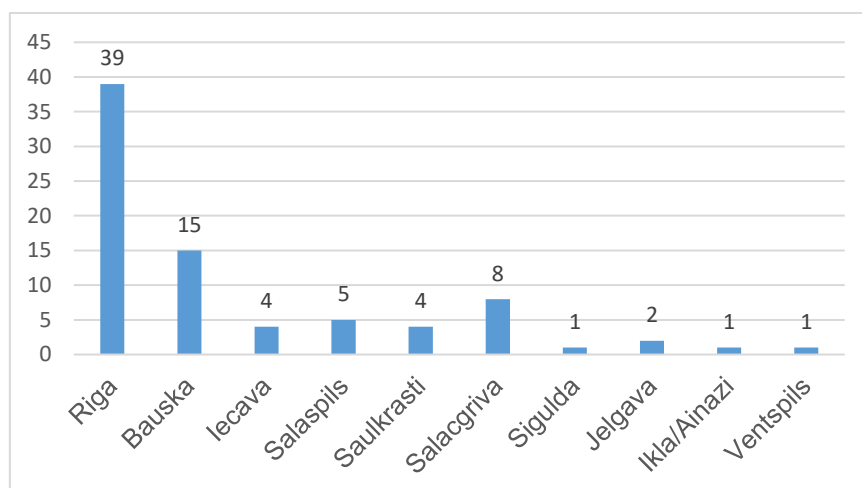
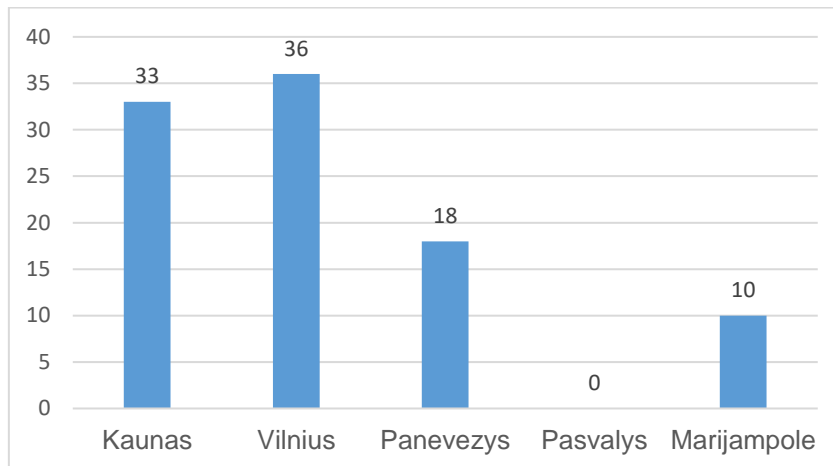


Diagram 4. The most important nodal points in Latvia (number of respondents).

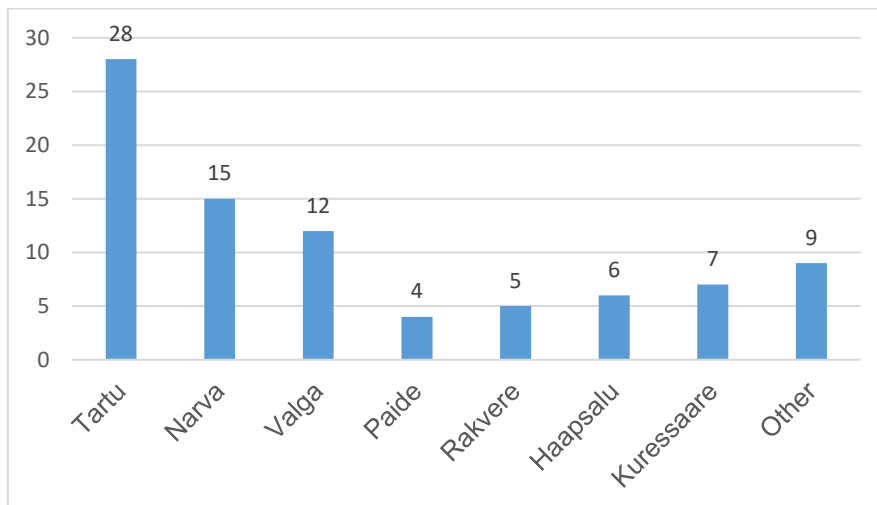
In addition to the suggested points Riga, Bauska, Iecava, Salaspils, Saulkrasti and Salacgriva, 3 survey's participants from Latvia and 1 participants from Estonia added the following nodal points: Sigulda, Jelgava, Ikla/Ainazi, Ventspils. In total 39 responses were received.



[Diagram 5.](#) The most important nodal points in Lithuania (number of respondents).

Respondent indicated only suggested nodal point Kaunas, Vilnius, Panevezys, Marijampole. In total 38 responses were received.

Question 6 asked to indicate the most important existing and perspective nodal points for business travellers and commuters on the North Sea – Baltic corridor *catchment area* in Estonia, Latvia and Lithuania. The basic nodal points were defined and stakeholders we invited to add points. Respondents' opinion is indicated in [Diagrams 6-8](#).



[Diagram 6.](#) The most important nodal points in Estonia (number of respondents).

In addition to the nodal points indicated in the questionnaire, such as Tartu, Narva, Valga, Paide, Rakvere, Haapsalu, Kuressaare, Estonian stakeholders defined 6 more points: Parnu (3 respondents), Keila (1), Paldiski (1), Viljandi (2), Maardu (1) and Tallinn (1). In total 32 responses were received.

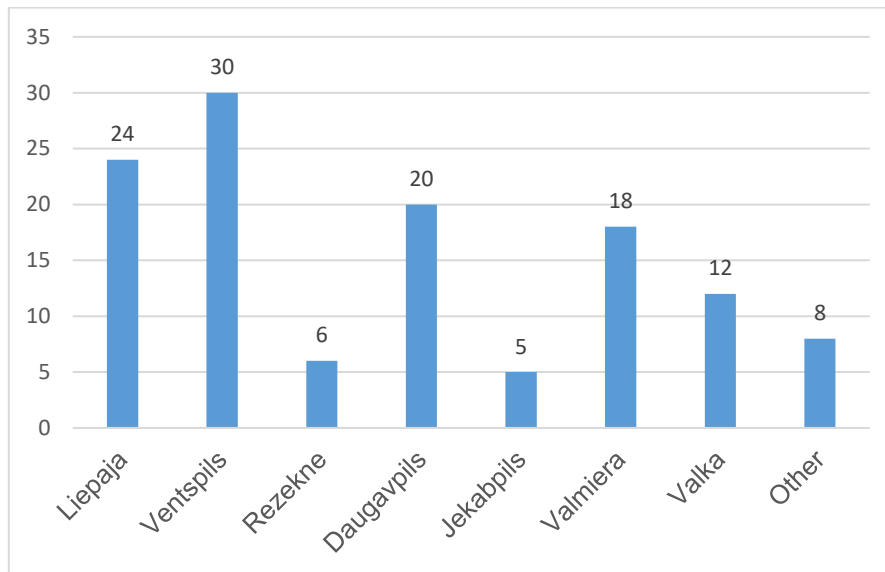


Diagram 7. The most important nodal points in Latvia (number of respondents).

In addition to the suggested nodal points Liepaja, Ventspils, Rezekne, Daugavpils, Jekabpils, Valmiera and Valka, additional points were written – Jurmala, Cesis, Sigulda, Jelgava and Pieriga region. In total 32 responses were received.

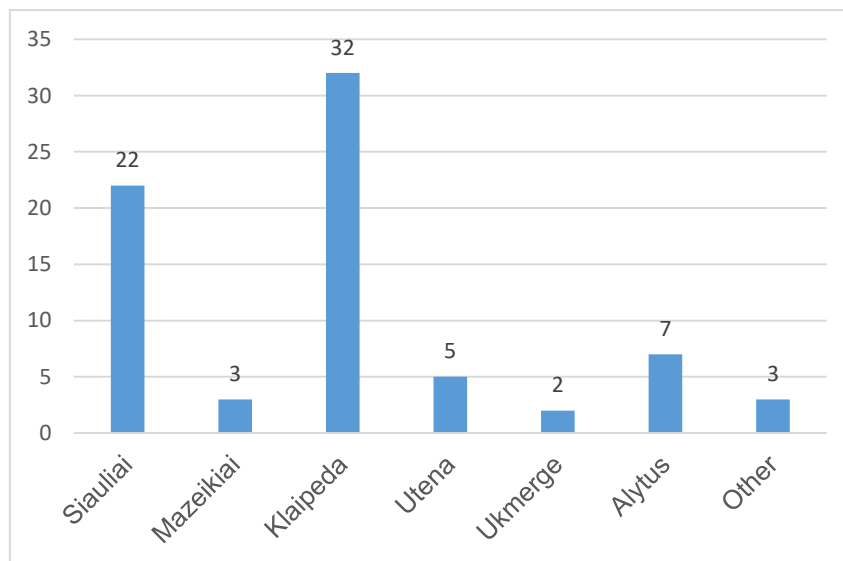


Diagram 8. The most important nodal points in Lithuania (number of respondents).

Stakeholders from Lithuania added 3 nodal points Kaunas, Vilnius and Marijampole as other ones. The suggested nodal points were Siauliai, Mazeikiai, Klaipeda, Utena, Ukmerge and Alytus. In total 32 responses were received.

Figure 7.1 below shows the most important existing and perspective nodal points for business travellers and commuters on the North Sea - Baltic corridor core network and catchment area in Estonia, Latvia, and Lithuania according to survey respondents.

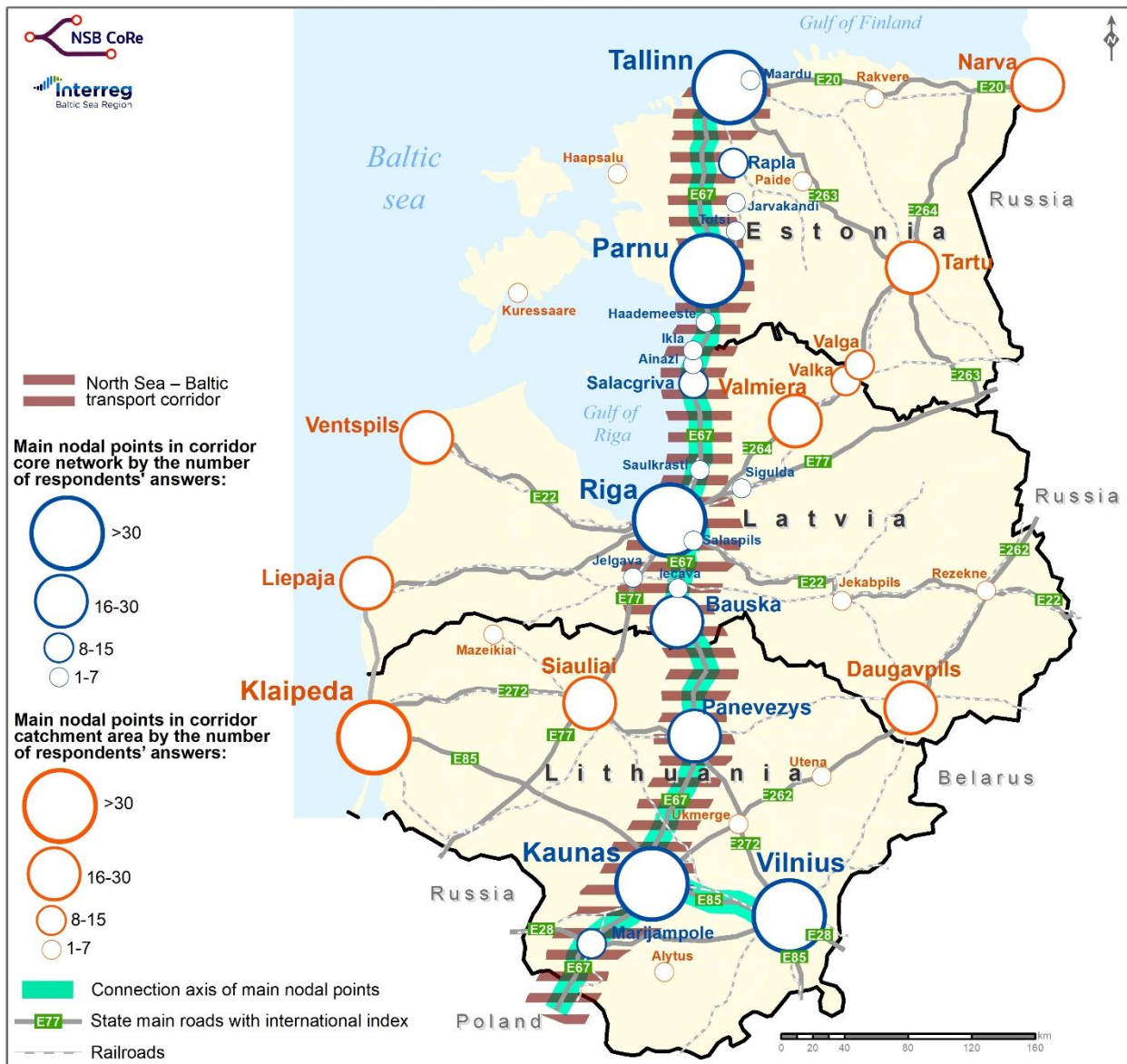


Figure 7.1. Most important existing and perspective nodal points for business travellers and commuters on the North Sea - Baltic corridor core network and catchment area (by the number of respondents' answers).

Question 7 offered to characterise the relevance of the North Sea – Baltic corridor development for the improvement of life quality in respondent's country/region. The survey participants' opinion noticed in Diagram 9.

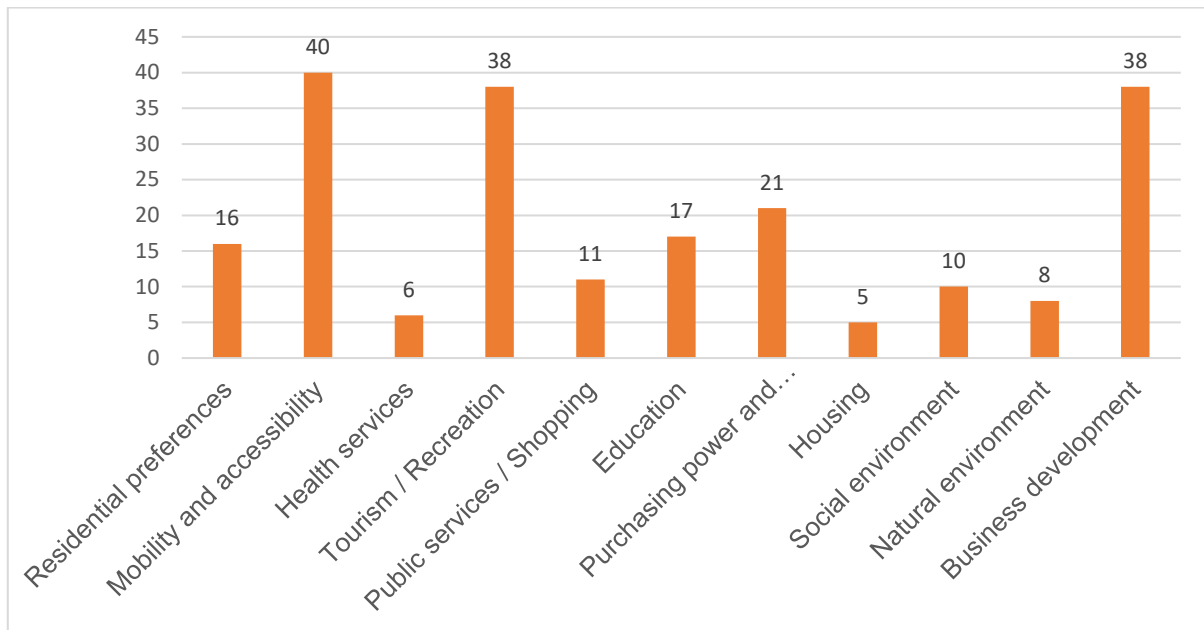


Diagram 9. The most important positions of life quality in country/region relevanted to the corridor development (number of respondents).

More than 90% of survey participants noticed 3 main positions that determine the standard of living: Mobility and accessibility, Tourism / Recreation and Business development. 50% of stakeholders mentioned Purchasing power and employment and near 40% - Residential preferences and Education.

Question 8 asked to indicate main existing functionality between the North Sea – Baltic corridor core network main cities in Estonia (Tallinn), Latvia (Riga), Lithuania (Kaunas with extension to Vilnius) and 2nd level nodes located in its surrounding area.

In Estonia for all suggested cities – Paldiski, Keila, Saue, Kehra, Maardu – as the main existing functionality more that 35% of respondents defined Labour mobility / Business relations. Only for Paldiski 19% of stakeholders marked also Tourism / Recreation as existing functionality. Another nodes took less than 10% of responses number.

Labour mobility / Business relations is important for Tukums (36%), Jelgava (33%) and Ogre (40%) in Latvia. Almost 29% of respondents noticed Education / Culture as the existing functionality for Jelgava and 52% - Tourism / Recreation for Sigulda.

Labour mobility / Business relations was noticed as the leading position for all mentioned Lithuanian cities: Jonava, Kedainiai, Elektrenai, Lentvaris, Prienai and Garliava (from 40% for Jonava till 21% for Prienai). The remaining positions are insignificant excluding Education/Culture for Kedainiai (12%) and Tourism/Recreation for Prienai.

Open **Question 9** suggested to respondents to describe the examples of road and rail connections in their country/region, the current state of which poses the challenges for the integration of transport network to the corridor from the macro-regional perspectives on the North Sea – Baltic core corridor and within catchment areas.

18 stakeholders answered the open question. Respondents from all the Baltic countries noticed the examples of insufficient rail communications between countries along North Sea – Baltic transport

corridor (as an example, Tallinn – Parnu – Riga), between capitals of Estonia, Latvia, Lithuania and their other cities, between central cities and the ports and on the territory of municipalities.

Some representatives of local level mentioned low quality of roads in the region and lack of rail and road infrastructure.

Respondent from Estonia (Local level) presented in more details his vision of the potential for Tallinn transport system development and better connection of Paldiski harbour with existing transport networks.

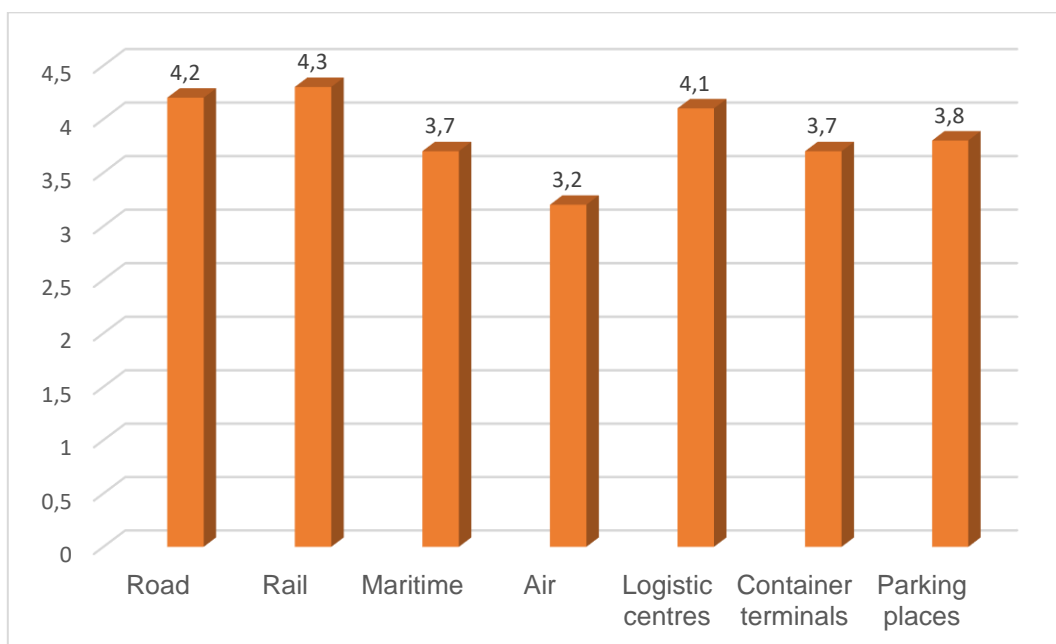
Representatives from State and International levels described their opinion more strategically. Lack of Vilnius connection with European gauge railway network, development of Kaunas and Vilnius intermodal terminals and Kaunas state sea port were in the zone of Lithuanian stakeholders' attention. Representatives of Latvia identified lack of consequent interoperability among different transport modes as well as gave description of the new opportunities for the North Sea – Baltic transport corridor development due to large-scale road transport projects (such as Riga Northern Transport corridor and others) and logistics center in Salaspils project.

Question 10 proposed to specify respondents' country/region needs for development of cargo transportation infrastructure. Answers were ranged from Very weak to Very important. The following [Table 5](#) was developed for more expressive visualization of responses results.

[Table 5. Responses correspondence scheme.](#)

Initial range	Very weak	Weak	Moderate	Important	Very important	No opinion
Correspondence	1	2	3	4	5	0

Answers' results are presented in [Diagram 10](#).



[Diagram 10. Respondents' country/region needs for cargo transportation infrastructure \(average-weighted coefficient\)](#)

The largest needs for cargo infrastructure development along North Sea – Baltic transport corridor are rail and road connections improvement as well as logistic centres/hubs construction. Respondents from Estonia defined the most relevant need – rail connection – only with average-weighted coefficient 3,9, respondents from Latvia noticed coefficient 4,3 and Lithuanian stakeholders very high estimated the need – 4.9.

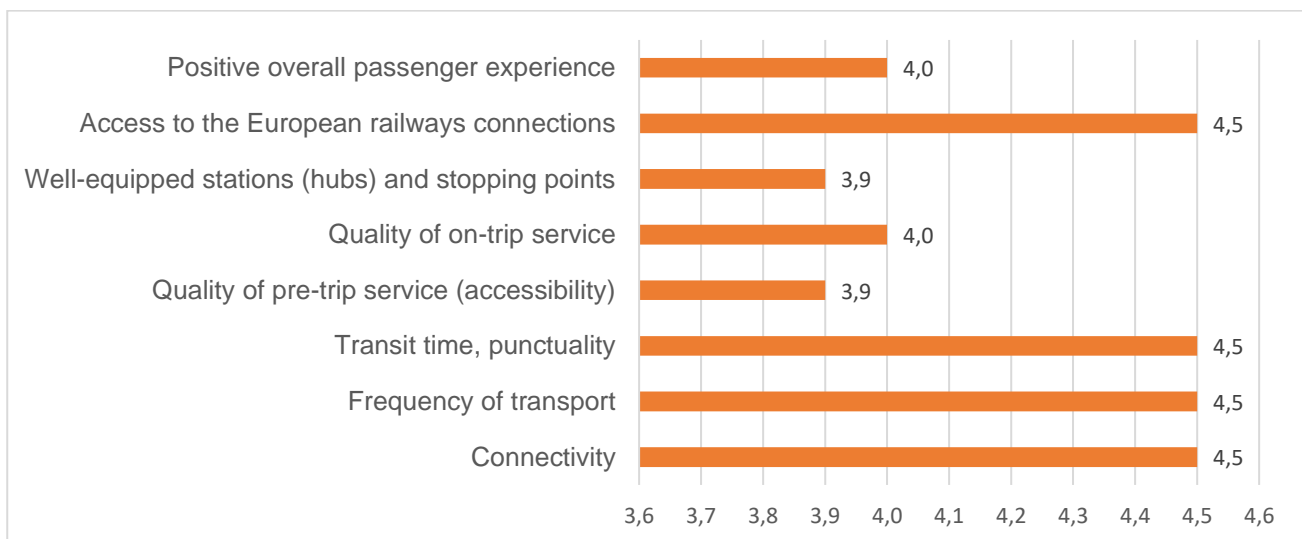
Question 11 asked respondents to estimate new opportunities for multimodal logistics development in their country/region. Survey participants’ answers were distributed as presented in [Diagram 11](#).



[Diagram 11](#). New opportunities for multimodal logistics development (number of respondents).

78,6% of respondents estimated as the best new opportunity Intermodal and multimodal logistics, 62,0% stakeholders marked Cargo flow development and the third position of the list is divided by Competitive transportation rate and Technical solutions (40,5% of respondents).

Question 12 proposed to characterize aspects encouraging the passenger mobility for business travellers and commuters. Answers were ranges from Very weak to Very important. Results are presented in [Diagram 12](#) and data of [Table 5](#) above are used to improve its visualization.



[Diagram 12](#). Aspects encouraging the passenger mobility for business travellers and commuters (average-weighted coefficient).

The answers to the question were practically divided into 2 groups: 4 positions with very high average-weighted coefficient 4.5 and 4 positions with average-weighted coefficient 3.9 – 4.0. Coefficient 4.5 means that on the average respondents estimated the aspects between Important and Very important. Coefficients 3.9 – 4.0 reflect respondents' opinion on the average at Important level.

Question 13 suggested respondents to choose the most important perspective transport solutions for passenger flow development regarding business travellers and commuters. Comparative results of the responses are presented in the [Diagram 13](#).

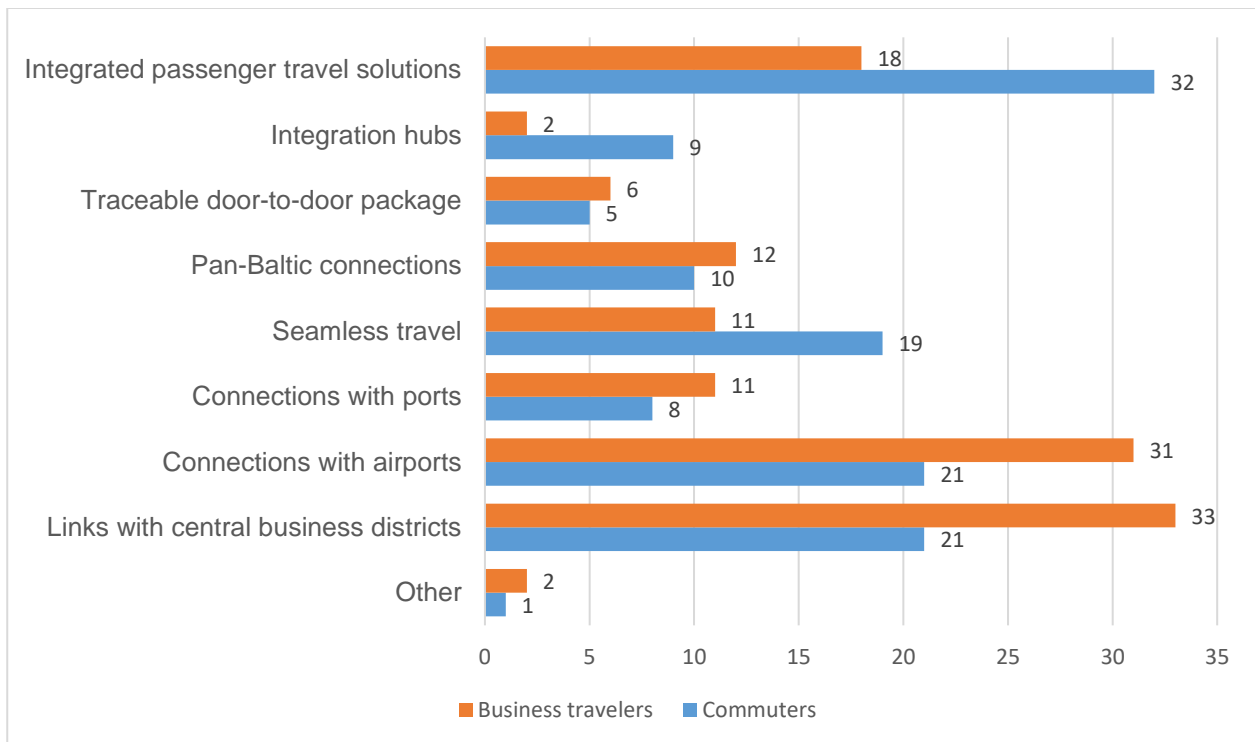


Diagram 13. The most important perspective transport solutions for business travellers and commuters (number of respondents).

Links with central business districts and Connections with airports are the most important positions for business travellers, 78,6% and 73,8% of respondents marked them accordingly. Integrated passenger travel solutions are not so popular (42,9% of stakeholders) among business travellers but took the first position among commuters (76,2% of respondents). The 2 leading positions for business travellers are noticed highly also by commuters: 50% of respondents for each of them. Stakeholders identify other solutions: Fast and efficient travelling and All solutions minimizing travel time for business travels and Interoperability between different transport modes for commuters.

Question 14 asked stakeholders to express their opinion how Rail Baltica project will stimulate the economic development in the country/region. Answers were ranged from Very weak to Very important. Respondents' opinions are presented in [Diagram 14](#) taking into account answers correspondence from [Table 5](#).

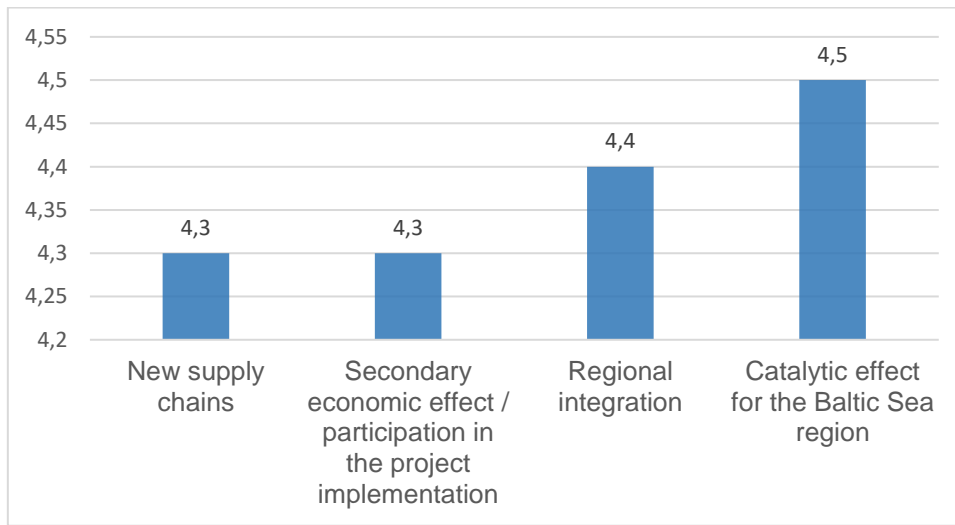


Diagram 14. Respondents' opinion on how Rail Baltica project will stimulate the economic development in the country/region (average-weighted coefficient)

All suggested answer options were highly indicated by respondents. On the average all responses were rated more than Important and Catalytic effect for the Baltic Sea region was marked even between Important and Very important. 44% of respondents from Estonia, 56% of respondents from Latvia and 30% of Lithuanian stakeholders noticed the position as Very important.

Question 15 suggested stakeholders to estimate the Rail Baltica project stimulation effect on the sustainable economic development. Survey participants' estimation is reflected in [Diagram 15](#).

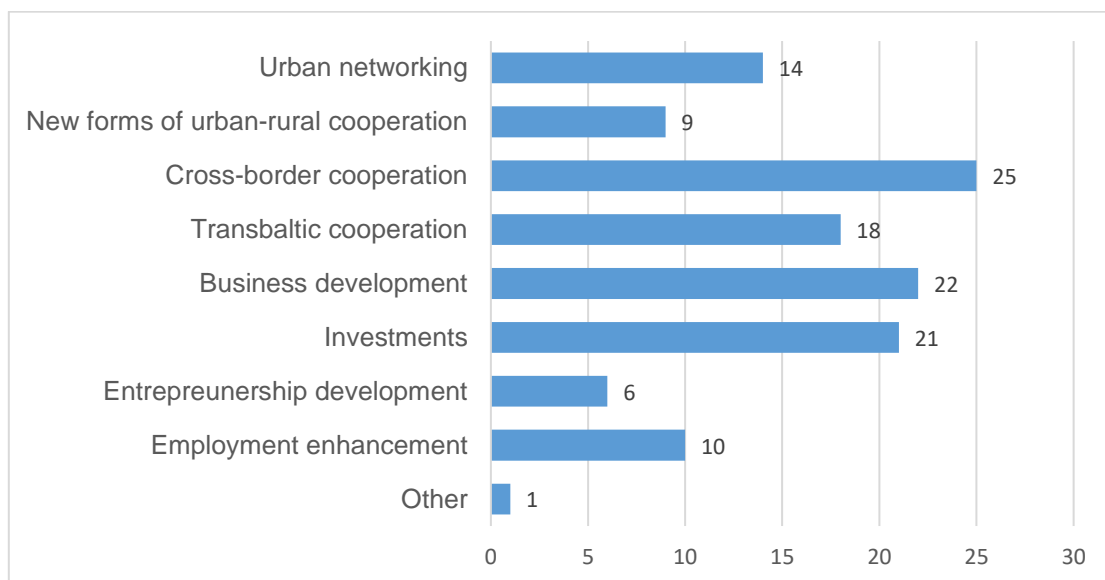
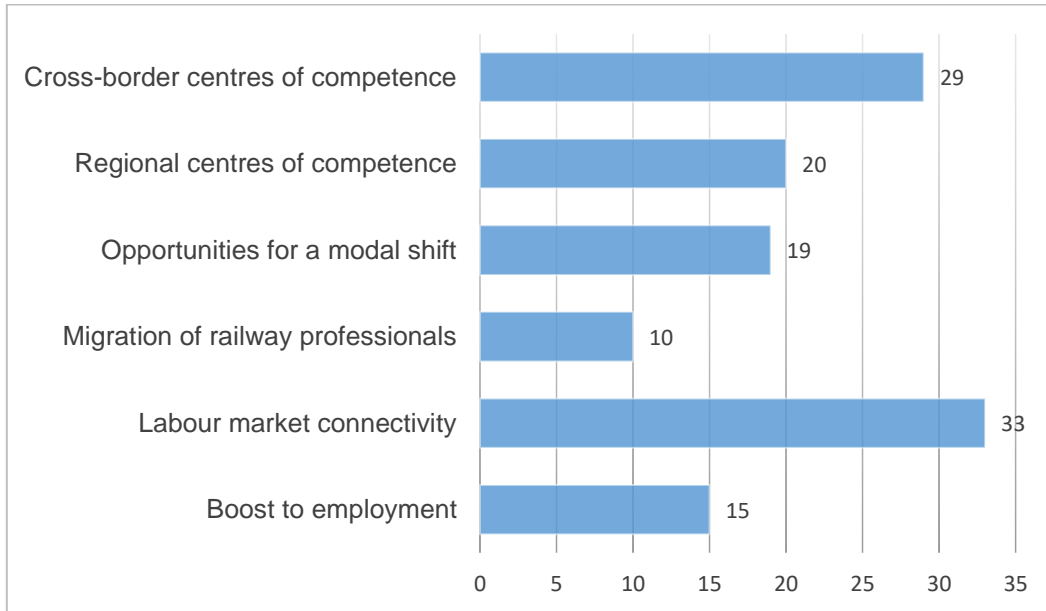


Diagram 15. The Rail Baltica stimulation effect on the sustainable economic development (number of responses).

Cross-border cooperation, Business development and Investments are mentioned by stakeholders as the main positions influenced by the Rail Baltica project development. In total more than 50% of respondents marked them: 59,5%, 52,4% and 50,0% of respondents accordingly. In the same time only 40,0% of stakeholders from Lithuania identified Cross-border cooperation in their responses compared to 62,5% (Estonia) and 68,9% (Latvia). Answer Mobility services was added as Other one.

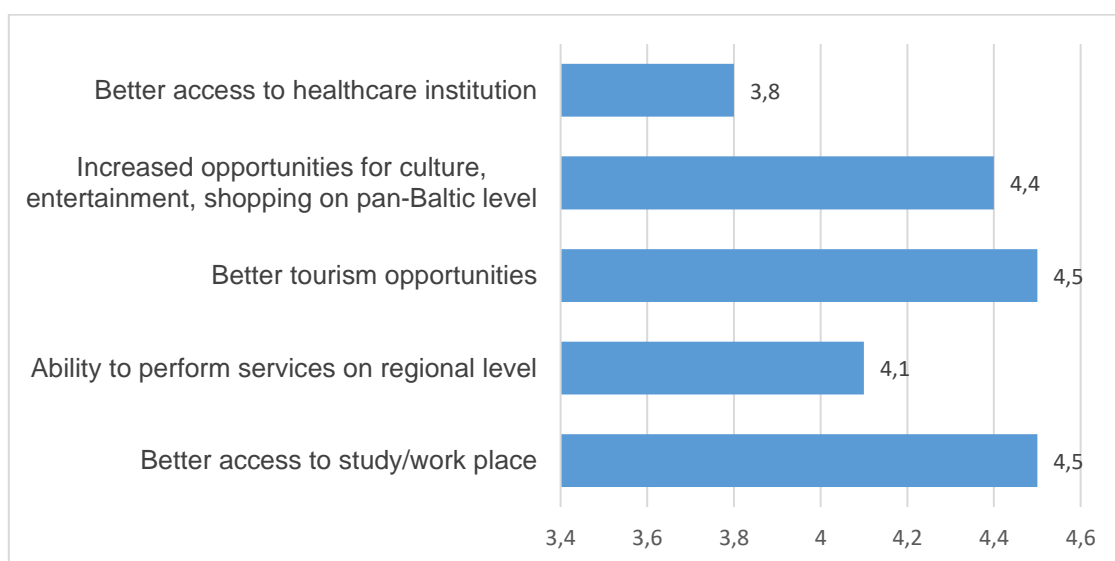
Question 16 invited to estimate the employment and educational opportunities encouraged by the Rail Baltica project development. Results are shown in [Diagram 16](#).



[Diagram 16](#). The employment and educational opportunities encouraged by the Rail Baltica project development (number of responses).

Labour market connectivity was mentioned by stakeholders as the most prominent opportunity. The position was identified by 90,0% of Lithuanian stakeholders and 87,5% of stakeholders from Latvia. At the same time the indicator for Estonia is much lower – only 62,5%.

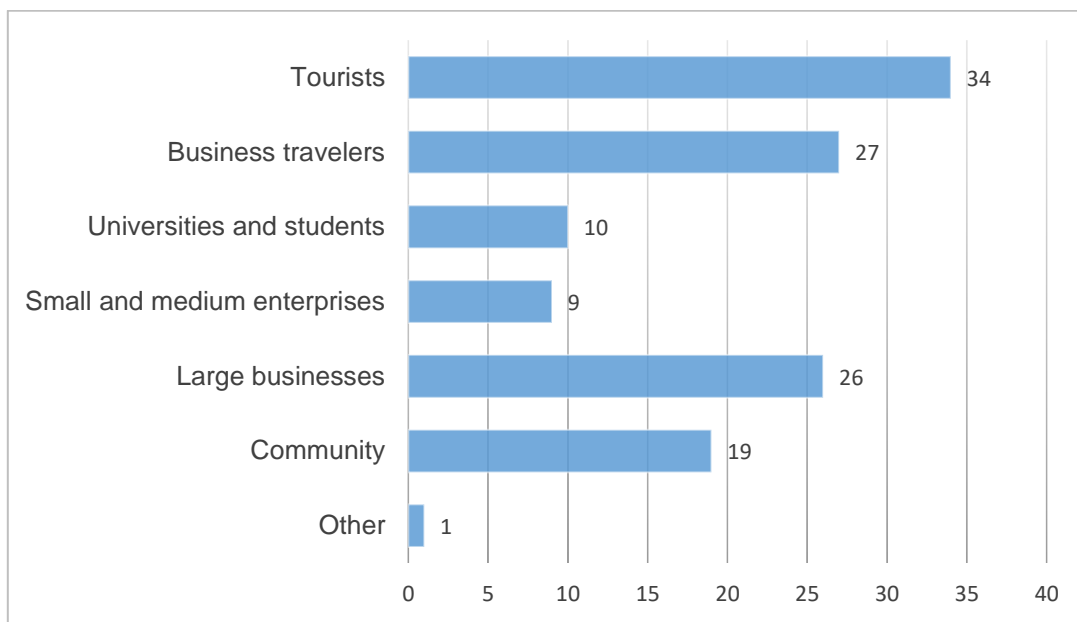
Question 17 proposed to estimate main social benefits from the Rail Baltica project implementation. Answers were ranged from Very weak to Very important. Results are presented in [Diagram 17](#) and scheme of correspondence from [Table 5](#) is used.



[Diagram 17](#). Social benefits from the Rail Baltica project implementation (average-weighted coefficient).

3 variants of responses Better access to study/work place, Better tourism opportunities and Increased opportunities for culture, entertainment, shopping on pan-Baltic level were estimated by stakeholders practically at the same high level: at the average between Important and Very important. Suggested response Better tourism opportunities was noticed as Important or Very important by 91% of respondents, response Better access to study/work place – by 81% of respondents and response Increased opportunities for culture, entertainment, shopping on pan-Baltic level by 76% of survey participants.

Question 18 offer to define who will benefit from the Rail Baltica project implementation. Survey participants’ opinion is reflected in [Diagram 18](#).



[Diagram 18](#). The beneficiaries the Rail Baltica project implementation (number of responses).

In accordance with stakeholders’s responses the main benefit will received representatives of business (Large business + Small and medium enterprises) – 35 responses, more than 83% of total stakeholders. At the second position are situated tourists – 34 responses, 81% of total amount and followed by Business travellers - 64% of total stakeholders.

Question 19 suggested to estimate how the North Sea – Baltic corridor overall development will influence the improvement of safety and performance. Answers were ranged from Very weak to Very important. Results are presented in [Diagram 19](#) taking into account scheme of correspondence from [Table 5](#).

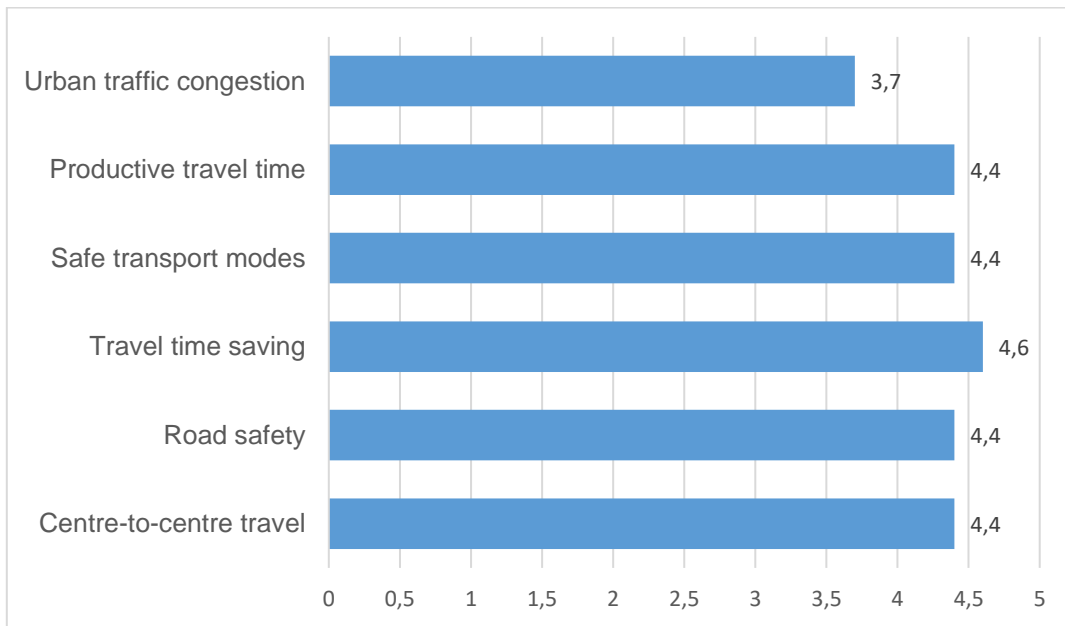


Diagram 19. Estimation of the North Sea – Baltic corridor overall development' influence on improvement of safety and performance (average-weighted coefficient)

Almost all suggested answers were very high estimated by survey participants: 5 of them were marked at the average between Important and Very important. More the 73% of stakeholders indicated these 5 responses as Important or Very important.

2 questions such as Centre-to-centre travel and Productive travel time were indicated only as Moderate and higher.

Open **Question 20** invited stakeholders to express their opinion about the NSB CoRe project project or about this questionnaire.

Respondents stressed the importance of the project and demonstrated their interest on survey results.

8 Collection and analysis of data on traffic flows, passenger mobility, trends in the intensity of passenger flows along the North Sea - Baltic transport corridor

Collection of data on traffic flows, passenger mobility, trends in the intensity of passenger flows along the North Sea - Baltic transport corridor was carried out on the base of statistics from transport industries of the Baltic States for 4 modes of transport: air, sea, rail and road.

Analysis of data was processed by quantitative statistics method.

Air: Air Baltic Corporation JSC (AirBaltic) currently carries out regular flights along the following routes: Tallinn - Riga, Tallinn - Vilnius and Riga - Vilnius. The number of flights per week for these routes, depending on the season, is shown in [Table 6](#).

[Table 6.](#) Number of flights per week for routes.

Season/ Route	Riga – Tallinn	Riga – Vilnius	Vilnius – Tallinn
Summer	32	32	12
Winter	31	31	9

According to experts, the increase in the number of passengers on these flights in the third quarter of 2017 was 18.5% - 19.0% compared to the same period last year. For your information: the distance between the airport of Vilnius and Kaunas is about 100 km.

Currently flights are also performed by AirBaltic on the routes Riga (Latvia) – Palanga (Lithuania) and Riga-Liepaja (Latvia). The number of flights per week for these routes, depending on the season, is shown in [Table 7](#).

[Table 7.](#) Number of flights per week for routes.

Season/ Route	Riga – Liepaja	Riga – Palanga
Summer	3	11
Winter	3	7

Sea: There is currently no regular sea link between the ports of Tallinn and Riga.

Rail: Passenger traffic between [Tallinn and Riga](#) is possible today only according to the following scheme: passengers from Riga get to Valka station (Latvia), which is combined with Valga station (Estonia), where they transfer to a train that goes further to Tallinn.

According to JSC Pasažieru vilciens, responsible for passenger train transport organising in Latvia, in general on the railway line Riga - Valka in 2016 812,123 passengers were transported, and for 10 months of 2017 - 732,202 passengers. Taking into account the seasonality of traffic, the increase in the number of passengers for 10 months of 2017 was 9% compared to the same period in 2016. At the same time, it should be noted that in its overwhelming majority the final destination for passengers departing from Riga was the following settlements in Latvia: Sigulda, Cesis and Valmiera.



Only a small part of the total number of passengers carried by the given railway line (less than 1%), namely 6003 passengers in 2016 and 5977 for 10 months of 217, were sent from the Riga station to the Valka / Valka station. At the same time, the growth for 10 months of 2017 was about 10% compared to 10 months in 2016.

According to experts, about 70% of the passengers transported to Valka station went further to Tallinn, which is 4,200 passengers for 10 months in 2017.

According to Eesti Liinirongid JSC (ELRON, responsible for passenger train transport organising in Estonia, the current data collection system does not allow to receive information on the passengers number on the Tallinn-Valga route. The number of passengers serviced at Valga station (arrivals and departures) was 70,000 in 2016, in 2017 the number of passengers is expected to increase by about 5%.

Passenger traffic between [Riga and Kaunas or Vilnius](#) is currently absent. The railway connection between Vilnius and Kaunas is very active, namely 20 train departures every day.

Road: The main migration of passengers in the Tallinn-Riga-Kaunas format of the transport corridor is carried out by road. 2 large companies carry out bus transportation between the capitals of the Baltic States, as well as the settlements that belong to this transport corridor: JSC LuxExpress and Ecolines Ltd,

The number of routes performed daily by companies is shown in [Table 8](#).

[Table 8](#). The number of routes performed daily.

Route / Company	JSC LuxExpress	Ecolines Ltd
Tallinn – Riga	13	7
Riga – Vilnius	11	6 – 7
Riga – Kaunas		2
Valga (Estonia) – Riga		1
Tallinn – Tartu	23	
Tartu – Riga	4	2

Both companies do not provide information on transportation on separate routes, motivating it by its confidentiality. At the same time, according to the data of the JSC LuxExpress homepage, the Baltic routes showed very good growth in the first quarter of 2017. Without adding capacity, the amount of passengers increased by 19% compared to the 1st quarter of 2016. In the second quarter of 2017, there was also an increase in passenger turnover by 17%, while in the third quarter the company lost 22% in passenger turnover compared to the same period of last year.

Existing transport connections along the North Sea - Baltic transport corridor is demonstrated in the [Figure 8.1](#) below.

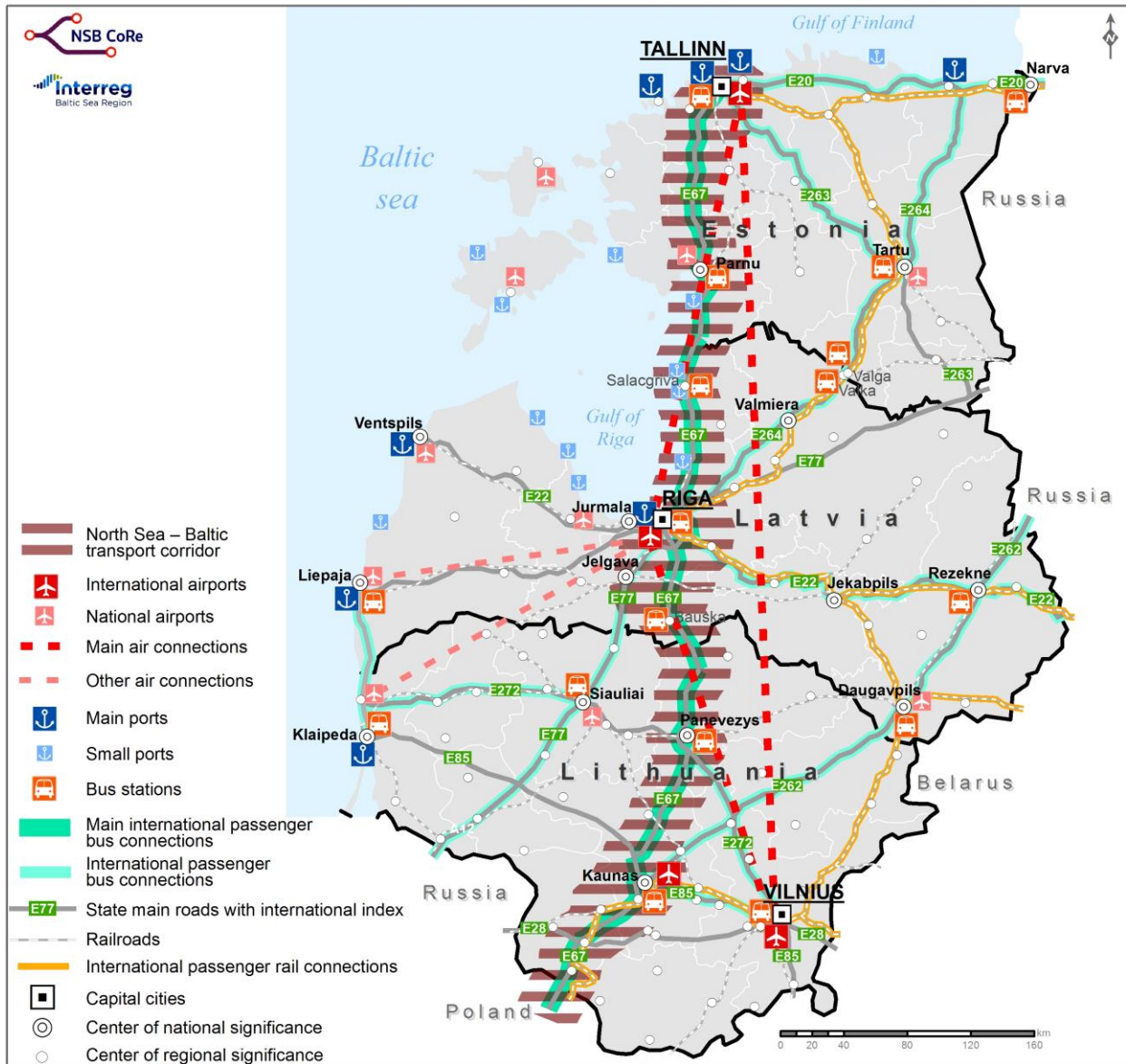


Figure 8.1. Existing transport connections along the North Sea - Baltic transport corridor.



9 General Summary

During the preparation of the report, 23 documents were examined that relate to different levels of the Multilevel Transgovernance model. Among them are the European Union Strategy for the Baltic Sea Region, VASAB Long-Term Perspective for the Territorial Development of the Baltic Sea Region till 2030, national strategies and development plans for Estonia, Latvia and Lithuania, regional strategies and development plans for the Baltic states' regions along the North Sea – Baltic transport corridor, as well as planning documents (strategies and development plans) for the cities of Tallinn, Riga and Kaunas.

In addition, the Transport policies of the three countries, the materials related to the North Sea – Baltic CoRe project (Data Form, Work Plans of the European Coordinator Catherine Trautmann, the partners' reports of the project) and other documents that are relevant to the study of this transport corridor were also considered.

Cartographic materials, which demonstrate the transport corridor at different spatial planning levels: in general, and in more detail its individual parts, were examined and presented in the report.

As a result of the analysis of the listed documents, proposals were developed for a common understanding of the North Sea – Baltic transport corridor main transport nodes and connections, which are represented graphically. The main emphasis was placed on passenger transportation, at the same time, cargo transportation was also taken into account.

In the course of the project, a survey of relevant stakeholders from Estonia, Latvia and Lithuania was conducted to investigate the business needs and labour mobility along the Tallinn – Riga – Kaunas commuting growth corridor.

The questions of the developed questionnaire were formulated in such way as to get the common stakeholders' understanding of the Baltics section main nodal points and connections taking into account all modes of transport (road, rail, air, water) and the needs of business travellers and commuters. In total, the questionnaire containing 20 questions was filled by 42 representatives from Estonia, Latvia and Lithuania. The list of respondents is presented in the report.

The results obtained during the survey were processed and widely presented, both descriptively and graphically. In addition, the report presents cartographic material reflecting the most important existing and perspective nodal points for business travellers and commuters on the North Sea - Baltic corridor core network and catchment area in Estonia, Latvia, Lithuania according to survey respondents.

The final part of the document provides information on current traffic flows, passenger mobility, trends in the intensity of passenger traffic along the North Sea - Baltic transport corridor. The data were obtained from transport industries of the Baltic states for 4 modes of transport: air, sea, rail and road. As an illustration to the information presented, cartographic material was also developed.