



## LOGISTICS REQUIREMENT OF SHIPPERS AND THEIR COMMITMENT FOR INTERMODAL SUPPLY CHAINS ON NSB CORRIDOR

Consolidation Report  
Work Package 2  
Activity 2.1.2

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## LIST OF ABBREVIATIONS

|          |   |
|----------|---|
| CEF      | CONNECTING EUROPE FACILITY  |
| EDI      | ELECTRONIC DATA INTERCHANGE   |
| ERTMS    | EUROPEAN RAIL TRAFFIC MANAGEMENT SYSTEM   |
| ITS      | INTELLIGENT TRANSPORT SYSTEM  |
| LSP      | LOGISTIC SERVICE PROVIDER   |
| NSB      | NORTH SEA-BALTIC  |
| NSB CoRE | NORTH SEA-BALTIC – CONNECTOR OF REGIONS   |
| RoLA     | ROLLENDE LANDSTRASSE (GERMAN) – ROLLING HIGHWAY OR ROLLING ROAD - A FORM OF COMBINED TRANSPORT INVOLVING THE CONVEYING OF ROAD TRUCKS BY RAIL |
| RRT      | RAIL-ROAD TERMINAL  |
| WP       | WORK PACKAGE  |

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## 1 STARTING POINT

This consolidation report is a summary of the activity 2.1 in the project North Sea-Baltic – Connector of Regions (NSB CoRe) that is a flagship project of the Interreg Baltic Sea Region programme. In the project 16 partners from the six countries Finland, Estonia, Latvia, Lithuania, Poland and Germany are working together in order to enhance regional development in the north-eastern Baltic Sea Region by improving the internal and external accessibility of the region along the North Sea Baltic TEN-T corridor. The main aim is the connection of the regions along the NSB corridor, especially

- improving the accessibility of cities, regions and industries,
- connecting the North Sea – Baltic Corridor (TEN-T) to its catchment area, its connecting nodes and access routes,
- communicating and facilitating between local, national and EU-level decision-makers,
- creating mechanisms to support private sector's participation in multi-level governance of transportation and logistics and
- implementing the TEN-T Regulation from a regional development perspective and brings the needs of peripheral regions to attention.

NSB CoRe consists of the substantial work packages (WPs) Intermodal Logistics (WP 2), Commuting Growth Corridors (WP 3), Spatial Planning for NSB Network Development (WP 4) and Branding and Community Building (WP 5). As this report is part of WP 2 we will have a deeper look at the aims and mission of this work package that can be described as follows:

- Strives to increase interoperability between transport modes to support the optimal supply of services and modal split in freight traffic.
- Collecting the experience from transport operators on bottlenecks and cross-border problems from an operative perspective.
- Creation of a ranking model of logistics services and analysis of nodal points.
- Evaluation of technologies and applications of ITS that serve the intermodal supply chain.
- Interoperability of traffic modes, infrastructure, seaport connections and other nodal points: intermodal terminal and last mile, interoperability between the future freight villages.
- Target groups: Logistics Service Providers (forwarding companies, Baltic sea ports, freight villages, intermodal operators, railway companies), customers in transport and logistics, policy makers.

Activities in 2.1 are focusing on gathering the background knowledge and building up the initial conditions for project's demonstration, evaluation and knowledge sharing activities, stronger networks between stakeholders and to make them work together regarding specific challenges.

The aim is to gain more understanding and future users for that intermodal corridor in order to find out what the main barriers of intermodal transport are and what they think about the opportunities arising from new intermodal infrastructures, especially Rail Baltica. The focus has been to set the picture of the current intermodal logistics situations within the North Sea Baltic Corridor and define the main goals and needs of the relevant stakeholders (Logistics Service Providers and Shippers) as well as identify the main challenges, opportunities and priorities. Therefore, in activity 2.1.2 interviews had been conducted with Logistic Service Providers (LSPs) and shippers in each of the NSB CoRe partner countries. Afterwards, Roundtable Meetings took place in each of these countries that should serve as the feedback occasion for the companies (Logistics Service Providers and Shippers) that have participated in the interviews and further stakeholders from business and politics.

This consolidation report as a summary of the outcomes of activity 2.1 starts giving some background information on the corridor development and especially on the Rail Baltica project in the following section 2. Afterwards, a statistical analysis of the region that has been done in order to define the most important economic sectors for intermodal transport and estimate the potential for future freight transport along Rail Baltica will be summarised in section 3. Section 4 deals with the methodologies and the results of the conducted interviews. In section 5 the roundtable meetings from each NSB CoRe partner countries are summarised and section resumes the overall outcomes, gives an evaluation and some recommendations for the future.

## 2 BACKGROUND AND INFRASTRUCTURE DEVELOPMENT AT NSB CORRIDOR

### 2.1 Current situation for intermodal road-rail transport along the corridor

As the aim of activity 2.1 is to identify, categorise and rank the barriers, bottlenecks and business needs for intermodal transport along the corridor we will have a look at the current state of the infrastructure, especially rail infrastructure that is necessary for intermodal transport along the corridor. Unless otherwise indicated, the following remarks in sections 2.1, 2.2 and 2.3 are taken from the Second work plan of the European Coordinator of the North Sea-Baltic corridor, Mrs. Catherine Trautmann (Trautmann, 2016). This document is well suited to summarise the main issues for the NSB corridor.

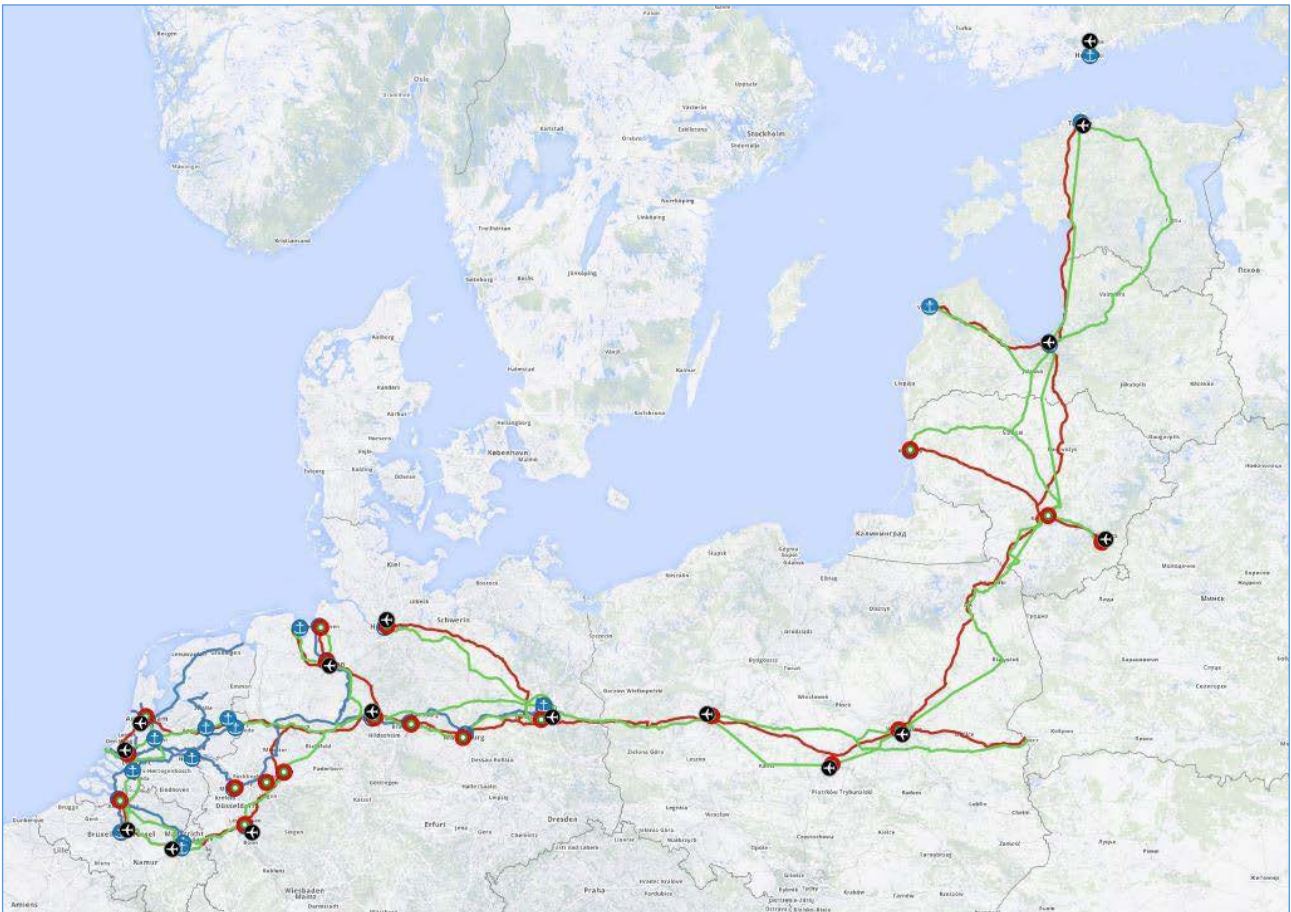


Figure 1: North Sea-Baltic Corridor map showing different Urban nodes and transport interconnections by mode (Trautmann, 2016)

Figure 1 shows the whole NSB corridor for each transport mode. The corridor starts off in the major North Sea Ports of Amsterdam, Rotterdam (Netherlands), Antwerp (Belgium) as well as Hamburg, Bremen and Bremerhaven (Germany) in the west and links all capital cities of the eight states being part of the corridor ending in the North-East in the Finish capital region Helsinki-Uusimaa. It follows that the corridor crosses eight national borders (1 maritime: FI-EE and seven terrestrial: EE-LV; LV-LT; LT-PL; PL-DE; DE-NL; NL-BE; DE-BE). These cross border sections have a high priority in the work on the corridor as in many cases they are also bottlenecks for intermodal transport.

Taking a deeper look to the railway infrastructure in each of the countries along the corridor in Table 1, one of the most striking bottleneck is that there are three different railway gauges along the corridor: the standard UIC gauge of 1435 mm in Belgium, the Netherlands, Germany and Poland; the 1520 mm gauge in Estonia, Latvia and Lithuania (with the exception of the section between Kaunas and the Polish border that has a dual gauge or parallel tracking of 1520 mm and 1435 mm) and the 1524 mm gauge in Finland. Another important infrastructural bottleneck is the missing electrification in the biggest part of railway line of the Baltic States. In Lithuania, only the line between Kaunas and Vilnius is electrified so far and the cross-border traffic with



Poland can only be run using diesel traction. In Latvia and Estonia, only sub-regional lines for passenger transport around Riga and Tallinn are electrified.

| RAILWAYS                          |             | All entries: Share of all sections fulfilling the respective standard |       |       |       |       |       |       |       |          |
|-----------------------------------|-------------|---|-------|-------|-------|-------|-------|-------|-------|----------|
| TEN-T parameters                  |             | BEL   | NED   | GER   | POL   | LIT   | LAT   | EST   | FIN   | Corridor |
| Length of all sections            | km          | 397   | 477   | 1,783 | 1,442 | 848   | 594   | 442   | 3     | 5,986    |
| Electrification                   | electrified | 100 %   | 100 % | 97 %  | 91 %  | 18 %  | 11%   | 17 %  | 100 % | 75 %     |
| Track gauge                       | 1,435 mm    | 100 %   | 100 % | 100 % | 100 % | 13 %  | 0 %   | 0 %   | 0 %   | 76 %     |
| Line speed (core freight lines)   | ≥100 km/h   | 80 %  | 100 % | 100 % | 9 %   | 25 %  | 0 %   | 0 %   | N/A   | 61 %     |
| Axle load (core freight lines)    | 22.5 t      | 100 %   | 100 % | 100 % | 99 %  | 100 % | 100 % | 100 % | N/A   | 100 %    |
| Train length (core freight lines) | min. 740 m  | 100 %   | 100 % | 100 % | 38 %  | 100 % | 100 % | 100 % | N/A   | 85 %     |
| ERTMS / signalling system         | YES         | 32 %  | 43 %  | 0 %   | 0 %   | 0 %   | 0 %   | 0 %   | 0 %   | 7 %      |

Table 1: Compliance of railway infrastructure with TEN-T requirements in 2014 (Trautmann, 2016)

Rail-road terminals (RRTs) are also very important for the use of intermodal transport on land routes. In Finland a trimodal terminal belonging to the corridor exists in the port of Helsinki. In Estonia, RRTs are in ports as well, but not in the hinterland.<sup>1</sup> In Latvia, RRTs are planned to be constructed jointly with the Rail Baltica project. In Lithuania, there are two intermodal terminals Vilnius and Kaunas completed in 2015. Poland and Germany have a quite good network of intermodal terminals.

## 2.2 Infrastructure development projects on the NSB corridor

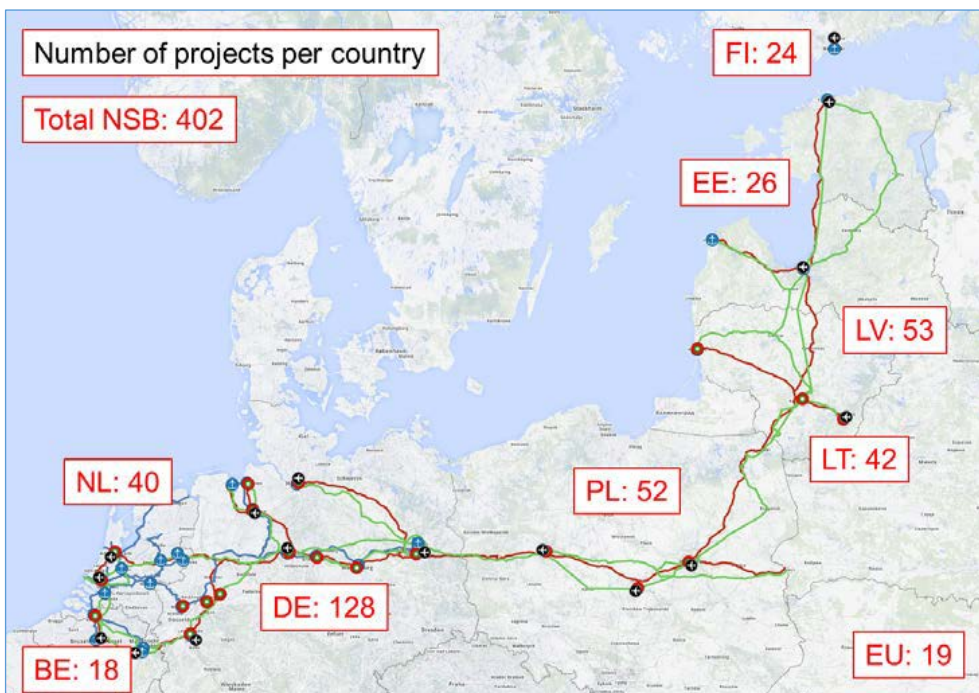


Figure 2: North Sea-Baltic corridor project list split by countries (Trautmann, 2016)

Figure 2 shows the number of projects split by countries. Most projects are in Germany as there is the biggest share of the rail network and inland waterway network only exists in Germany, Belgium and the Netherlands. The most projects are for the transport modes of road, rail and maritime sector. The seaports play a big role for the corridor development also in connection with rail and road projects in the hinterland. With more than 30 billion EU rail projects demand nearly half of the investment share (46.3 %) of all projects

<sup>1</sup> There exists a project idea to develop an RRT (dry port) outside of Tallinn.

of which the total investment sum had been known so far. These investments should help developing new railway lines and eliminating bottlenecks.

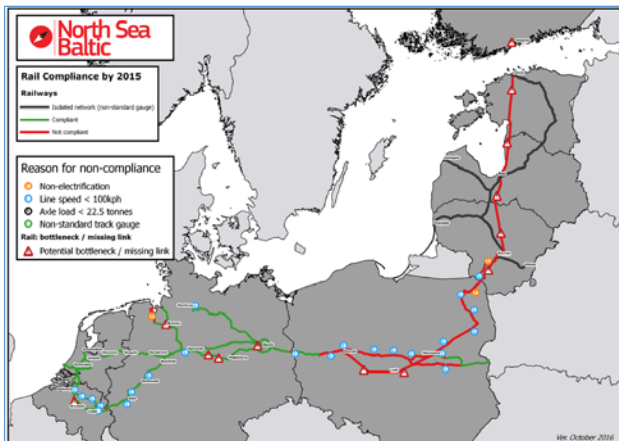


Figure 3: Rail compliance by 2015 (Trautmann, 2016)

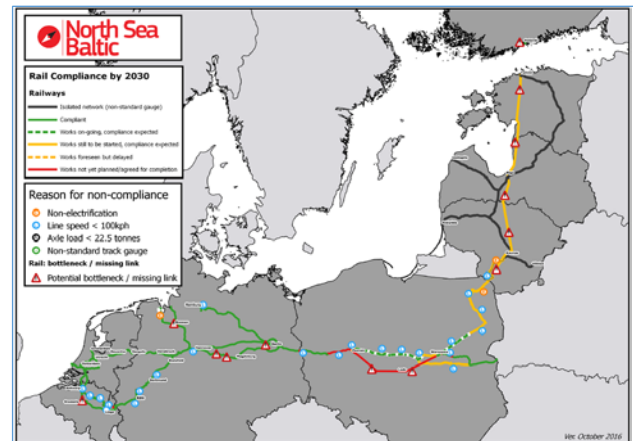


Figure 4: Rail compliance by 2030 (Trautmann, 2016)

Figure 3 and Figure 4 show the compliance of the rail network on the NSB corridor with certain requirements of the TEN-T Regulation as the status quo of 2015 and the outlook into 2030. If we look at the 2015 status we can see that there are many lines identified as non-compliant and especially two major missing links: Rail Baltica and the high-speed line Poznań-Łódź-Warsaw in Poland. The planned investment volume is allocated especially to the airport connection and other projects in Helsinki (6 billion EUR), the Rail Baltica project (5.9 billion EUR), electrification of further lines in the Baltic States (close to 1 billion EUR in Lithuania and Latvia), new and upgraded lines in Poland (8 billion EUR), electrification, speed and capacity issues in Germany (9 billion EUR) and speed, interoperability and capacity issues in Belgium.<sup>2</sup> Comparing the maps on rail compliance 2015 and 2030 we can see that the most striking difference is the section between Warsaw and Tallinn, the Rail Baltica project, which will be explained in more detail in the following section of this report.

### 2.3 Rail Baltica project

The Rail Baltica project is the most important project for the development of the NSB corridor. The project comprises a new 1435 mm standard gauge rail connection from Warsaw to Tallinn linking four countries and their capitals in goods and passenger transport via rail. Rail Baltica ensures traffic flows via rail along the corridor without any gauge breaks in between. The connection should serve also as North-South link between Finland and South-East Europe and as an alternative to the predominant road traffic flows along the West-East route from and to Belarus and Russia.

According to the corridor coordinator, the whole Rail Baltica project is of highest importance for the whole NSB corridor and especially the three Baltic States' economies: "Without the full implementation of the Rail Baltica line, the flow of goods and services from the rest of the Single Market cannot pass easily by rail into the Baltic States and on to Finland or vice versa. The Corridor cannot operate at its full potential if the situation of two different gauges would remain in place. The freight and passenger rail traffic is currently low because the infrastructure in the North/South direction is not adequately connected or interoperable, and traffic is dominated by trucks and cars. The Baltic States can highly benefit from the symbiosis of the new Rail Baltic railway and the currently dominant East/West trade flow. The Baltic States also need to become better connected to the rest of the EU for strategic reasons in the current geopolitical realm."<sup>3</sup>

For the development of the infrastructure the three Baltic States have established the Joint Venture RB Rail AS in 2014. Since then, feasibility studies and preparatory works have been done by means of CEF funding. For the section of the existing dual gauge/parallel 1435/1520 mm track from the Polish border to Kaunas it is planned to remove the bottlenecks in terms of speed restrictions (at the moment 80 km/h for freight and 120 km/h for passenger transport) and missing electrification and ERTMS (planned to be installed by 2020).

<sup>2</sup> Further details on the specific projects can be taken from Trautmann (2016, p. 33f.). This report will concentrate especially on Rail Baltica project.

<sup>3</sup> Trautmann (2016)

Construction works for Rail Baltica are planned to begin in 2020 and completed by 2025 in the three Baltic States. The connection with Warsaw is planned to be fully active before 2030.<sup>4</sup>

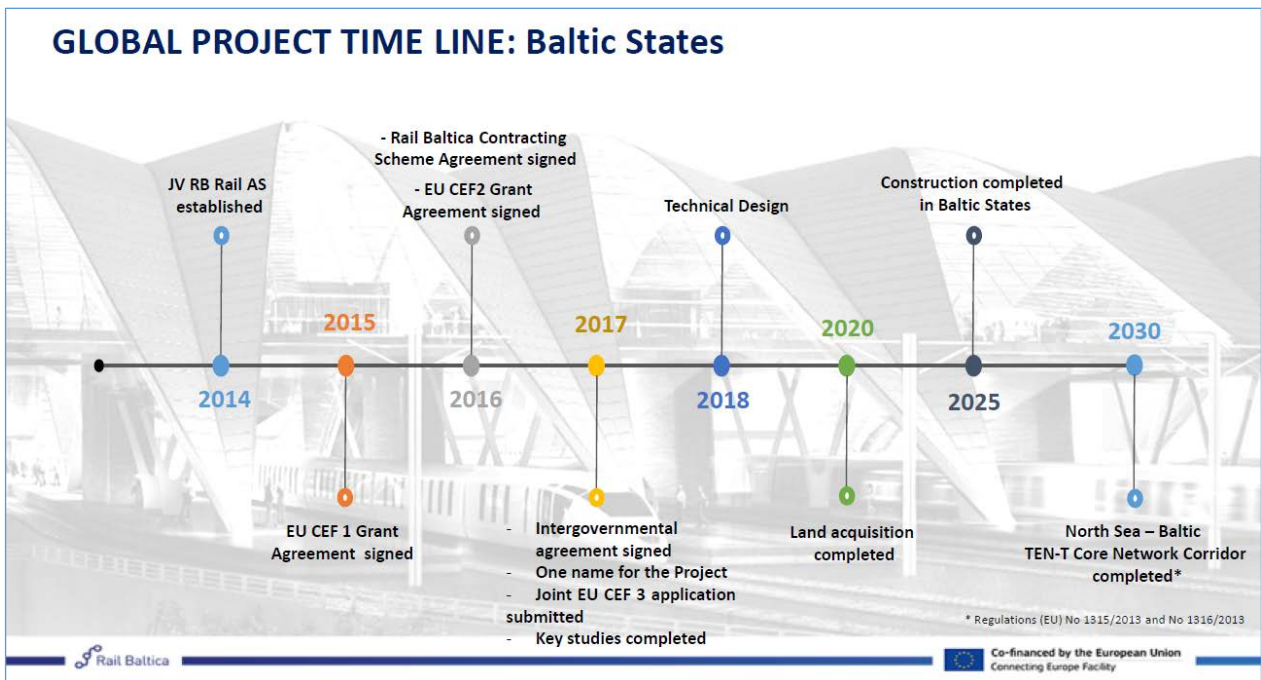


Figure 5: Global time line of the Rail Baltica project (RB Rail, 2017a)

The Joint Venture RB Rail AS is responsible for the central project management meaning that the role of RB Rail AS is to

- Represent the project and ensure overall interoperability,
- Represent the interests of all stakeholders,
- Ensure cost savings generated by economies of scale,
- Guarantee successful project implementation, unrestricted functioning of the single market and equal access to infrastructure,
- Develop a centre of competence.<sup>5</sup>

The structure around RB Rail AS is illustrated in Figure 6.

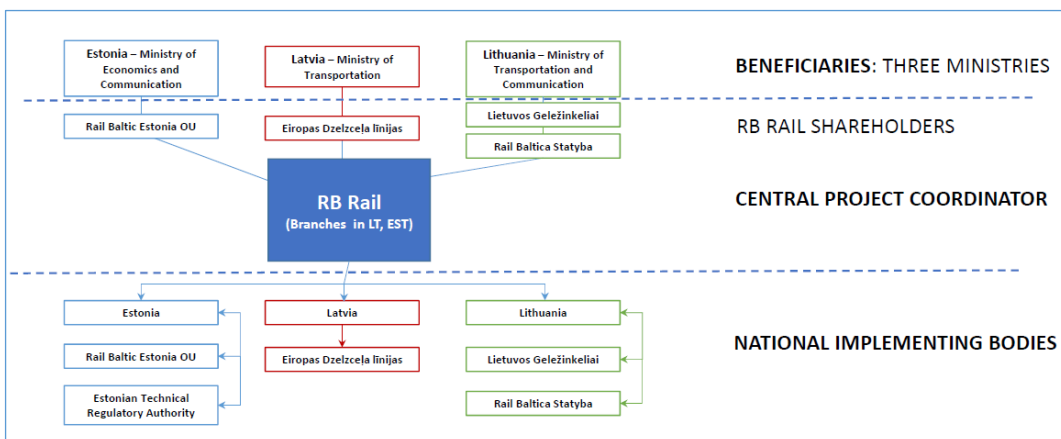


Figure 6: Rail Baltica project structure (RB Rail, 2017a)

<sup>4</sup> This timeline has been stated in the Rotterdam Joint Declaration of June 2016 by the partners.

<sup>5</sup> RB Rail (2017a)



The electrified double track route of Rail Baltica has a total length of 870 km in the three Baltic States, divided into 213 km in Estonia, 265 km in Latvia and 392 km in Lithuania. The design speed is planned with 240 km/h for passenger trains and 120 km/h for freight trains with a maximum train length of 740 m and axle loads of 22.5 t. The course of the route is depicted in Figure 7.

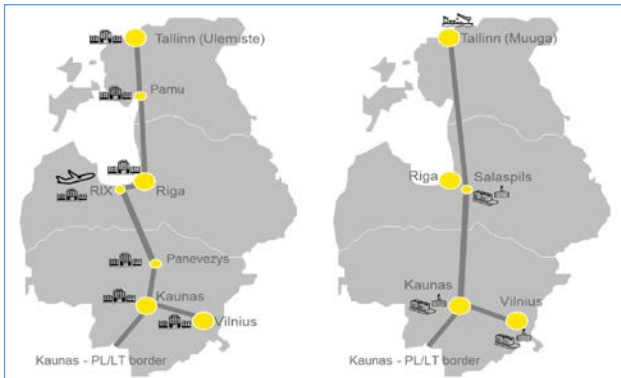


Figure 7: Main passenger and freight terminals (RB Rail, 2017b)

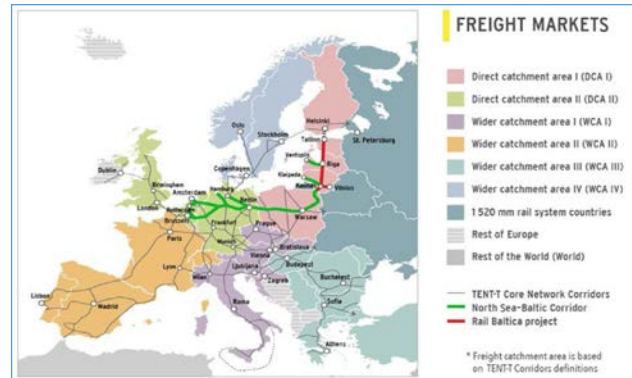


Figure 8: Rail Baltica freight catchment areas (RB Rail, 2017b)

The catchment area of the Rail Baltica freight flows is illustrated in Figure 8. Here we can see that especially the area of the NSB corridor is in the direct catchment area, but also the UK. However the connection of this new transport corridor to Adriatic and Black Sea ports as gateways as well as the rail connection to China should also be noted. Furthermore, the long distance offers a price advantage, adds to the Single Market approach of the EU and the increasing cargo flows and the potential hub functionality of intermodal terminals along the Rail Baltica. The potential of future freight flows and train traffic estimated by RB Rail is given in Figure 9.

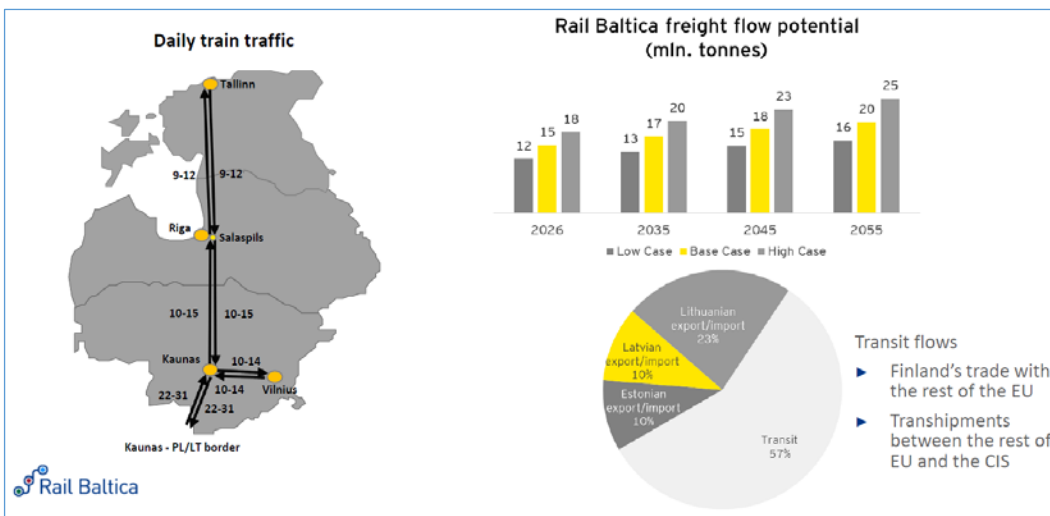


Figure 9: Potential freight flows for Rail Baltica (RB Rail, 2017b)

Other potentials are the transport of conventional cargo between distribution centres in swap bodies, the trailer transport organised on regular train systems and RoLa<sup>6</sup>. Other aspects that are important are the improvement of terminal networks through open access, digitalisation of information exchanged and cooperation between operators. According to RB Rail (2017b), the value of the net socio-economic benefits exceeds 16 billion EUR (cf. Figure 10) and there is a significant amount of unmeasurable socio-economic benefits as illustrated in Figure 11.

<sup>6</sup> RoLa – Rollende Landstrasse (German) – Rolling Highway or Rolling Road is a form of combined transport involving the conveying of road trucks by rail

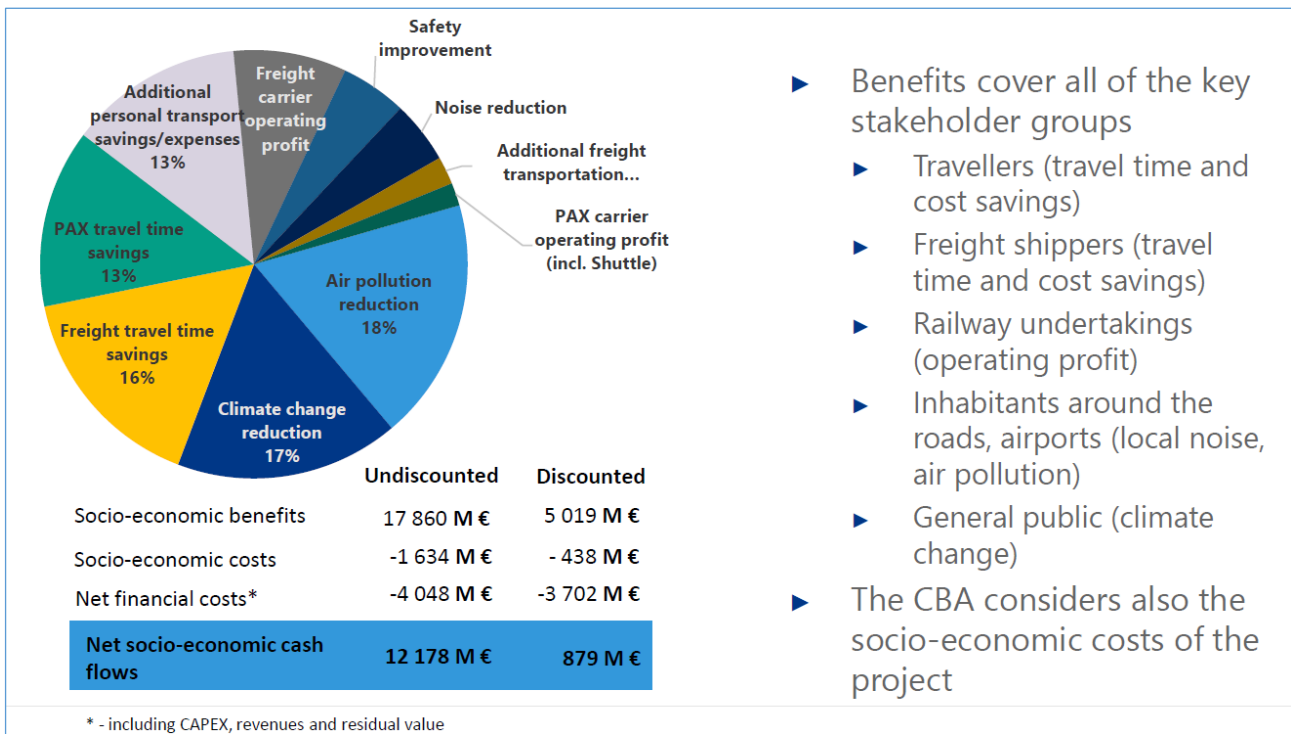


Figure 10: Socio-economic benefits from Rail Baltica project (RB Rail, 2017b)



Figure 11: Unmeasurable socio-economic benefits from Rail Baltica project (RB Rail, 2017b)

Altogether, we can see that there is a long way to go until the infrastructure will be fully functional and available. But there is a very big potential for benefits not only in the Baltic States. These potentials and the opinions from the business sector have further been analysed in the framework of this activity. The results are given in the following sections of this report.

### 3 STATISTICAL ANALYSIS OF THE REGION

In order to show the importance of the trade relations and as a basis for finding the appropriate and relevant interview partners market analysis have been conducted in each of the partner countries of the NSB CoRe project. A special focus has been on trade relations along NSB corridor to define on which economic sectors the focus should be laid on. Taking a look at the trade statistics we can see that the NSB corridor development is important for each of the countries as their main trade partners are situated often along the corridor. The following tables will illustrate these statistics by listing the three most important trade partners in export and import of the partner countries.

| Country   | Most important   | 2 <sup>nd</sup> most important | 3 <sup>rd</sup> most important |
|-----------|------------------|--------------------------------|--------------------------------|
| Germany   | USA              | France                         | UK                             |
| Poland    | <b>Germany</b>   | UK                             | Czech Republic                 |
| Lithuania | Russia           | <b>Latvia</b>                  | <b>Poland</b>                  |
| Latvia    | <b>Lithuania</b> | <b>Estonia</b>                 | Russia                         |
| Estonia   | Sweden           | <b>Finland</b>                 | <b>Latvia</b>                  |
| Finland   | <b>Germany</b>   | Sweden                         | USA                            |

Table 2: Most important buying countries for exports of NSB CoRe partner countries 2016 (Eurostat, 2017)

| Country   | Most important     | 2 <sup>nd</sup> most important | 3 <sup>rd</sup> most important |
|-----------|--------------------|--------------------------------|--------------------------------|
| Germany   | <b>Netherlands</b> | China                          | France                         |
| Poland    | <b>Germany</b>     | China                          | <b>Netherlands</b>             |
| Lithuania | Russia             | <b>Germany</b>                 | <b>Poland</b>                  |
| Latvia    | <b>Lithuania</b>   | <b>Germany</b>                 | <b>Poland</b>                  |
| Estonia   | <b>Finland</b>     | <b>Germany</b>                 | <b>Lithuania</b>               |
| Finland   | <b>Germany</b>     | Sweden                         | Russia                         |

Table 3: Most important supplying countries for imports of NSB CoRe partner countries 2016 (Eurostat, 2017)

In the following we will take a deeper look on markets of each NSB CoRe partner country and the trade along the corridor. Following the market analysis interviews with shippers had been conducted whereas the main focus should be on the identified industrial sectors.

#### 3.1 Market analysis – Germany

To get a feeling for the goods flow from and to Germany along the corridor it is necessary to take a look at the trade volumes. Figure 13 shows that the main part of this goods flow is between Germany and Poland. The overall trade (exports and imports) of Germany with the three Baltic States Lithuania, Latvia and Estonia sums up to a value of 9.4 billion EUR, the trade with Finland accounts for 17.3 billion EUR and the German-Polish trade to 101.3 billion EUR. These numbers show that the trade flow from and to Germany via Rail Baltica is much less than along the southern part of the NSB corridor, the “classical” East-West-corridor. The trade of Germany with the Baltic States and Finland accounts for a value of about 26 % of the trade between Germany and Poland. If we look at the statistics in weight instead of values the numbers diverge even more: The German trade with the Baltic States and Finland in tons only account for 19 % of German-Polish trade. During the market analysis both types of statistics had been investigated.<sup>7</sup>

<sup>7</sup> (Destatis, 2017)



Figure 12: Germany's main trade partners (Eurostat, Comext, 2017)

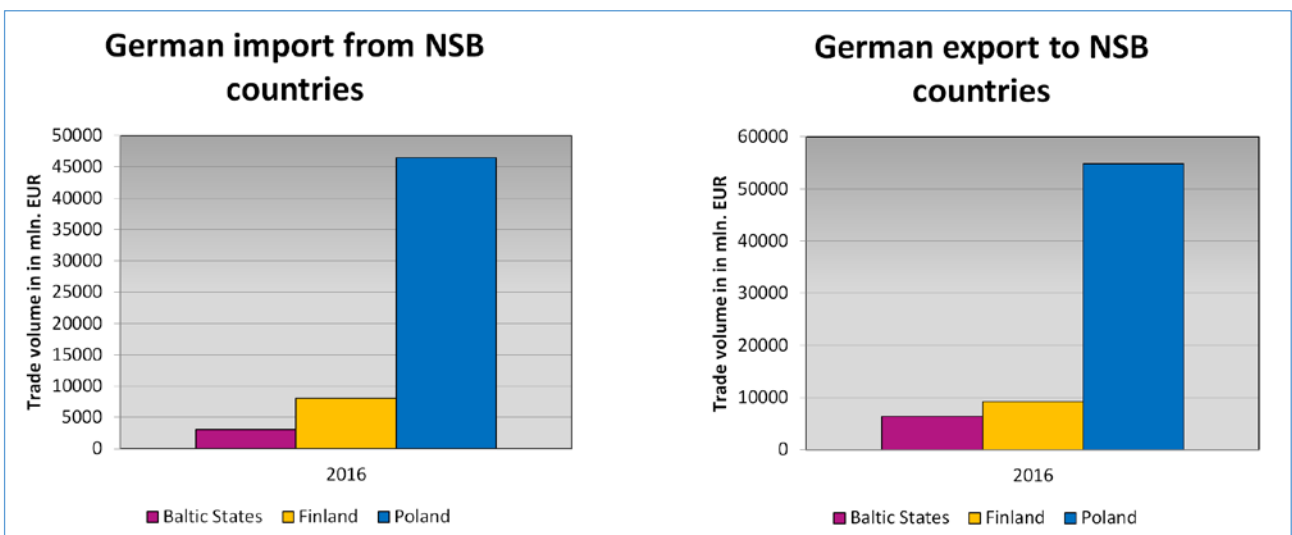


Figure 13: German trade with NSB countries 2016 (Destatis, 2017)

Nevertheless, the trade along Rail Baltica will also be part of our analysis because an important aim of the project is to determine the potentials of the new infrastructure in terms of modal shift of transport volumes from road to rail. For this purpose the traded goods have been analysed for German export and import to and from each partner country. Within the scope of exports, the most important German export goods are products from the following industries:

- Automobile: motor vehicles and their parts,
- Machinery,
- Chemical industry,
- Food and food products
- Data processing equipment, electronic and optical products,
- Electrical industry & electrical equipment.

Most important import goods come from the following industry sectors:

- Paper, paperboard and goods thereof,
- Basic metals, fabricated metal products (except machinery and equipment),

- Wood and products of wood and cork, furniture, articles of straw,
- Food and fodder,
- Forestry products.

### 3.2 Market analysis – Poland

Poland's overall imports had a value of 178.2 billion EUR whereas the exports had a value of 183.0 billion EUR in 2016. Traditionally, Germany is Poland's number one trade partner accounting for 27 % share in exports and 28 % share in imports 2016. Finland and the Baltic States are not so important for Polish foreign trade. As an example, the four countries' trade with Poland do only sum up to one-tenth of the German share. The main trade partners of Poland can be seen in Figure 14.



Figure 14: Poland's main trade partners (Eurostat, Comext, 2017)

Looking at the potential for intermodal transport along the NSB corridor the following industries have been identified to be most important:

- Automotive,
- Wood and paper,
- Furniture,
- Electronics,
- Food production.

### 3.3 Market analysis – Lithuania

Lithuania's foreign trade amounts to 24.7 billion EUR in imports and 22.6 billion EUR in exports. For transports to and from Lithuania the NSB corridor is of much bigger importance compared to German and Polish trade. Lithuanian imports with a value of 12.1 % of all imports are from Germany, 10.8 % and 8 % from the Lithuanian neighbours Poland and Latvia. Only Russia has a bigger share in Lithuanian imports (14.4 %). Looking at Lithuanian exports the picture is quite similar. Following Russia with 13.5 % the NSB partner countries Latvia (9.9 %), Poland (9.1 %), Germany (7.7 %) and Estonia (5.3 %) rank 2<sup>nd</sup> to 5<sup>th</sup> as buying countries of Lithuanian exports.<sup>8</sup>

Major potential for intermodal transport is among following groups of goods:

<sup>8</sup> Germany Trade & Invest (2017, Lithuania)



- Chemical products,
- Food products,
- Machinery,
- Automotive.

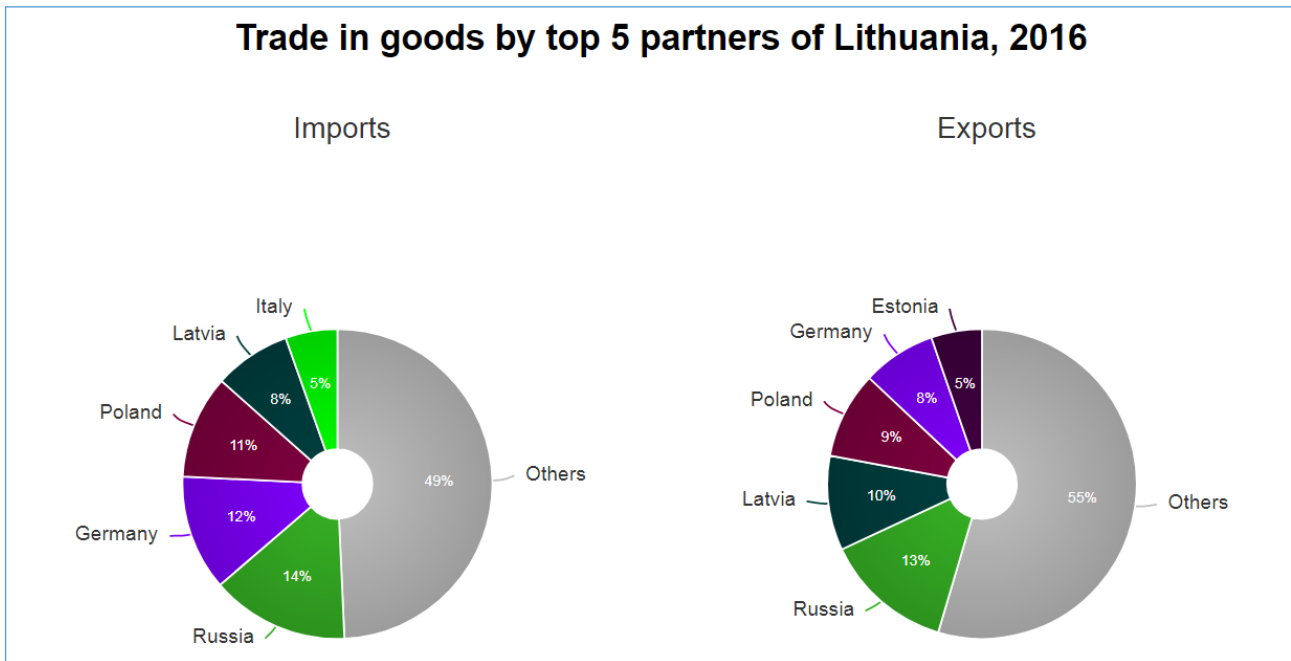


Figure 15: Lithuania's main trade partners (Eurostat, Comext, 2017)

### 3.4 Market analysis – Latvia

In 2016 Latvia's import hit 12.9 billion EUR simultaneous presenting export in volume of 11.0 billion EUR. When it comes to Latvia's foreign trade partners, Lithuania definitely takes the lead as the main import (16.9 %) and export (17.3 %) partner followed by Germany (12.3 %), Poland (10.3 %), Estonia (7.8 %) as the major countries of origin for Latvian imports and Russia (11.5 %), Estonia (11.4 %) and Germany (6.8 %) as the major export partners.<sup>9</sup>

Main relevant trade goods of Latvia are:

- Wood and wood products,
- Electronics,
- Machinery and equipment,
- Chemical products,
- Cars and parts of cars.

<sup>9</sup> Germany Trade & Invest (2017, Latvia)

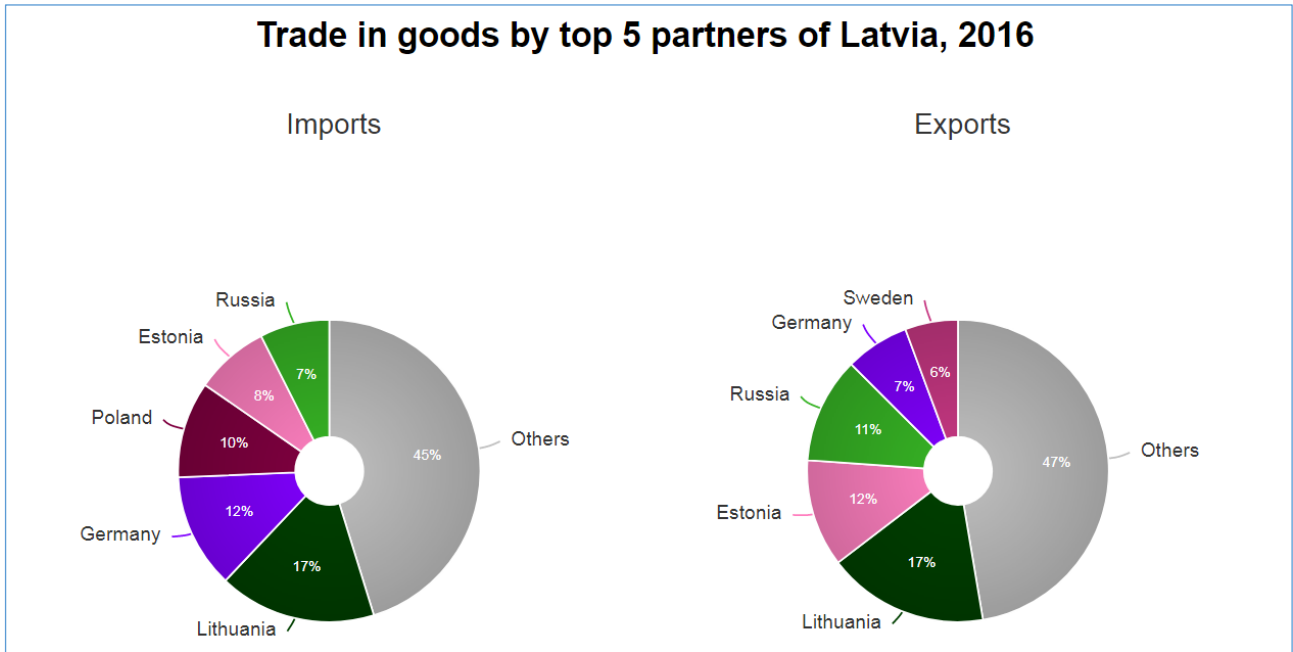


Figure 16: Latvia's main trade partners (Eurostat, Comext, 2017)

### 3.5 Market analysis – Estonia

Estonia's foreign trade has reached 13.5 billion EUR in import and 11.9 billion EUR in export in 2016. Major trading partners in import are Finland (13.1 %), Germany (11 %), Lithuania (9 %), Sweden (8.4 %), Latvia (8.3 %) and Poland (7.3 %). The main export relations of Estonia are to Sweden (18 %), Finland (16.1 %), Latvia (9.3 %), Russia (6.6 %), Lithuania (6 %) and Germany (5.9 %).<sup>10</sup>

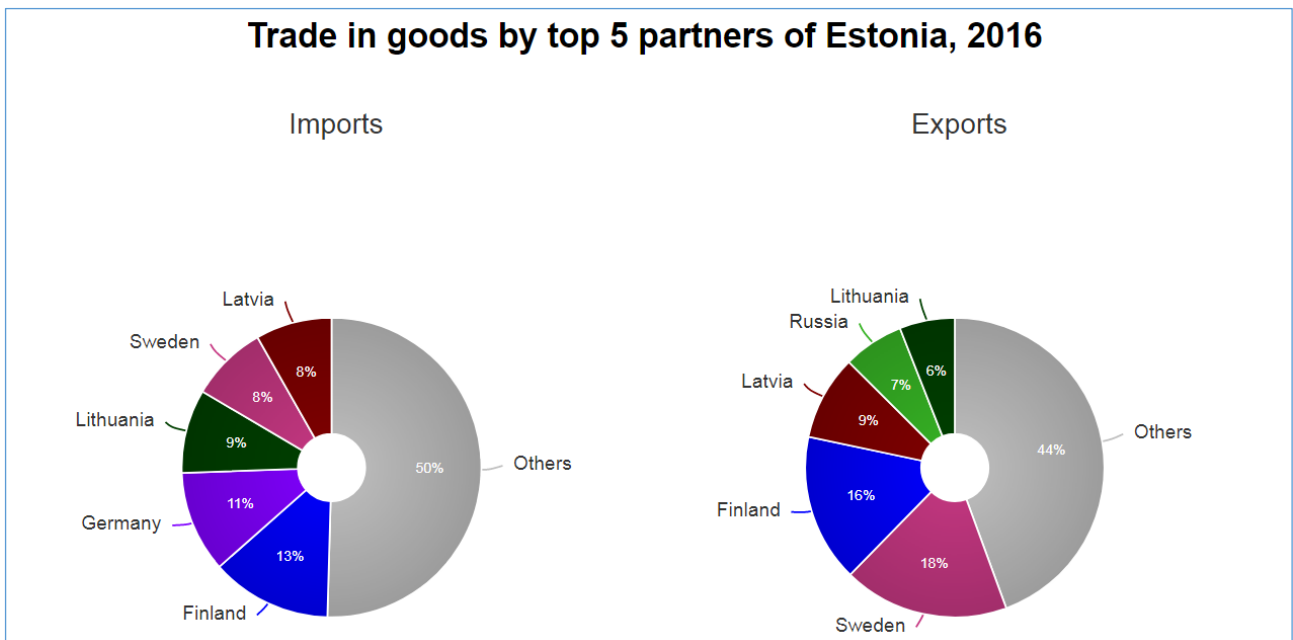


Figure 17: Estonia's main trade partners (Eurostat, Comext, 2017)

<sup>10</sup> Germany Trade & Invest (2017, Estonia)

The main relevant traded goods are:

- Electronics,
- Chemical products,
- Automotive products,
- Machinery,
- Food products.

### 3.6 Market analysis – Finland

Finland's import amounted to 55.0 billion EUR and export amounted to 52.1 billion EUR in 2016. Germany, Sweden, Russia and Netherlands are the leading trade partners whereas the Baltic States and Poland do not belong to the top 7.<sup>11</sup>



Figure 18: Finland's main trade partners (Eurostat, Comext, 2017)

Finland's most relevant traded goods include:

- Machinery,
- Chemical products,
- Paper / Cardboard,
- Chemical products,
- Automotive.

<sup>11</sup> Germany Trade & Invest (2017, Finland)

## 4 SURVEY ACTIVITIES AND RESULTS

In order to identify, categorise and rank the barriers, bottlenecks and business needs for intermodal logistics along the NSB corridor structured interviews have been conducted among the relevant target groups from the business side with strong interrelations along the corridor. To get a rather representative view on this the prior market analysis served as indicator to identify the industrial sectors from which most of the interviewed shippers should be taken from. So it could be assured that the target group is as relevant for intermodal transport along the corridor as possible.

Following the interviews as quantitative part of the survey the results have been presented and discussed with interview partners and further logistics experts from business and political and regional authorities in roundtable meetings that were held in each of the partner countries. The roundtable meetings should serve as feedback occasion and for validating purposes.

### 4.1 Methodology and setup of questionnaires

The questionnaires have been divided into the main groups of a) logistic service providers (LSPs) and b) shippers as the roles of these groups in the supply chain are totally different. The questionnaire for the LSPs has been further divided into 5 different groups: freight forwarders, intermodal operators, rail carriers, container terminals and road carriers. Each of the questionnaires for LSPs differed especially in the bottlenecks that had to be ranked by the interviewees.

Interviews have been conducted with companies in each of the partner countries by project partners or external consultants from each country. Most of the interviews were made by phone calls or face-to-face. The results have been filled by the project partners afterwards or during the interview into web-tools<sup>12</sup> to facilitate the analysis of the data. It was also possible to fill the questionnaire online by the companies themselves. This possibility has also been published via several channels as newsletters or an article in a logistics magazine.

Each of the questionnaires started with general questions about contact information, company size and industrial sector or role in the transport chain. Shippers have also been asked about their transport volumes and transport directions as well as kinds of transported goods and their modal split today. The main part of the questionnaire was about ranking of barriers to intermodal transport by the LSPs and shippers. They were asked about the importance of several barriers on a scale from 1 (no barrier at all) to 6 (very big barrier). Additionally, shippers have been asked to rank also advantages of intermodal transport and what they need to use more intermodal transport. LSPs were asked about main trends, success conditions and possible threats of / for intermodal transport. The final part of the questionnaires was used to get information about use of ICT tools in the companies' transport chains which has been analysed for another part of work package 2 of the NSB CoRe project. The detailed questionnaires can be found as an annex to this report.

### 4.2 Structure of interviewed companies

An overall number of 225 companies from the private sector have been interviewed between January and September 2017 by NSB CoRe project partners from the six countries Finland, Estonia, Latvia, Lithuania, Poland and Germany, among them 119 logistic service providers and 106 shippers. A detailed list of the numbers of conducted interviews with LSPs by partner country and role in the supply chain can be found in Table 4. The vast majority of them are freight forwarders and road carriers which also reflects the market structure in the logistics sector.

| LSPs' role in supply chain | GER       | POL       | LIT       | LAT       | EST       | FIN       | TOTAL      |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Freight Forwarders         | 9         | 16        | 2         | 9         | 8         | 7         | 51         |
| Intermodal Operators       | 3         | 4         | 3         | 3         | 0         | 0         | 13         |
| Rail Carriers              | 1         | 1         | 1         | 3         | 2         | 0         | 8          |
| Container Terminals        | 2         | 3         | 5         | 4         | 1         | 0         | 15         |
| Road Carriers              | 2         | 16        | 5         | 3         | 3         | 3         | 32         |
| <b>TOTAL</b>               | <b>17</b> | <b>40</b> | <b>16</b> | <b>22</b> | <b>14</b> | <b>10</b> | <b>119</b> |

Table 4: Numbers of conducted interviews with Logistic Service Providers

<sup>12</sup> LSPs' web questionnaires have been provided on google forms by the project partner ILIM Institute of Logistics and Warehousing. Shippers' web questionnaire has been provided on the platform PORTblog which is run by the project partner Hafen Hamburg Marketing e.V.

According to the economic sectors of the interviewed shippers the majority is from the most important sectors identified in the market analysis as described above. An exception is the automotive industry where it turned out to be very difficult to find companies that are willing to take part in this kind of studies. Most companies are from the sectors of wood/furniture, chemical industry and food industry. A detailed list of the number of conducted interviews by partner country and economic sector can be found in Table 5.

| Economic sector  | GER       | POL       | LIT       | LAT       | EST       | FIN      | TOTAL      |
|--|-----------|-----------|-----------|-----------|-----------|----------|------------|
| Other manufacturing  | 4         | 13        | 3         | 3         |           | 1        | 24         |
| Manufacture of wood and of products of wood and cork, incl. furniture          | 2         | 3         | 3         | 3         | 4         |          | 15         |
| Manufacture of chemicals and chemical products                                 | 4         | 2         | 1         | 2         | 2         |          | 11         |
| Manufacture of food products, beverages and tobacco products                   | 1         | 2         | 4         | 2         | 2         |          | 11         |
| M. of basic metals and metal products, except machinery and equipment          | 1         | 4         |           | 2         |           | 1        | 8          |
| Manufacture of machinery and equipment n.e.c.                                  | 1         | 2         |           |           | 3         | 2        | 8          |
| Manufacture of textiles, wearing apparel, leather and related products         | 1         | 2         | 1         | 2         | 1         |          | 7          |
| Manufacture of paper and paper products  | 1         |           | 1         | 2         | 1         | 2        | 7          |
| M. of computer, electronic and optical products, electrical equipment          |           | 3         |           |           | 3         |          | 6          |
| Manufacture of rubber and plastics products                                    |           | 1         |           | 2         |           |          | 3          |
| M. of motor vehicles, trailers and semi-trailers and other transport equipment |           | 2         |           |           |           |          | 2          |
| M. of basic pharmaceutical products and pharmaceutical preparations            |           |           |           | 2         |           |          | 2          |
| Printing and reproduction of recorded media                                    |           | 1         |           |           |           |          | 1          |
| Manufacture of other non-metallic mineral products                             |           |           |           |           |           | 1        | 1          |
| Manufacture of coke and refined petroleum products                             |           |           |           |           |           |          | 0          |
| <b>TOTAL</b>   | <b>15</b> | <b>35</b> | <b>13</b> | <b>20</b> | <b>16</b> | <b>7</b> | <b>106</b> |

Table 5: Numbers of conducted interviews with shippers

As Figure 19 shows, the interviewed companies are located well along the NSB corridor what underlines the relevance of the sample. The companies from southern part of Germany are also relevant as they show big transport volumes along the NSB corridor.

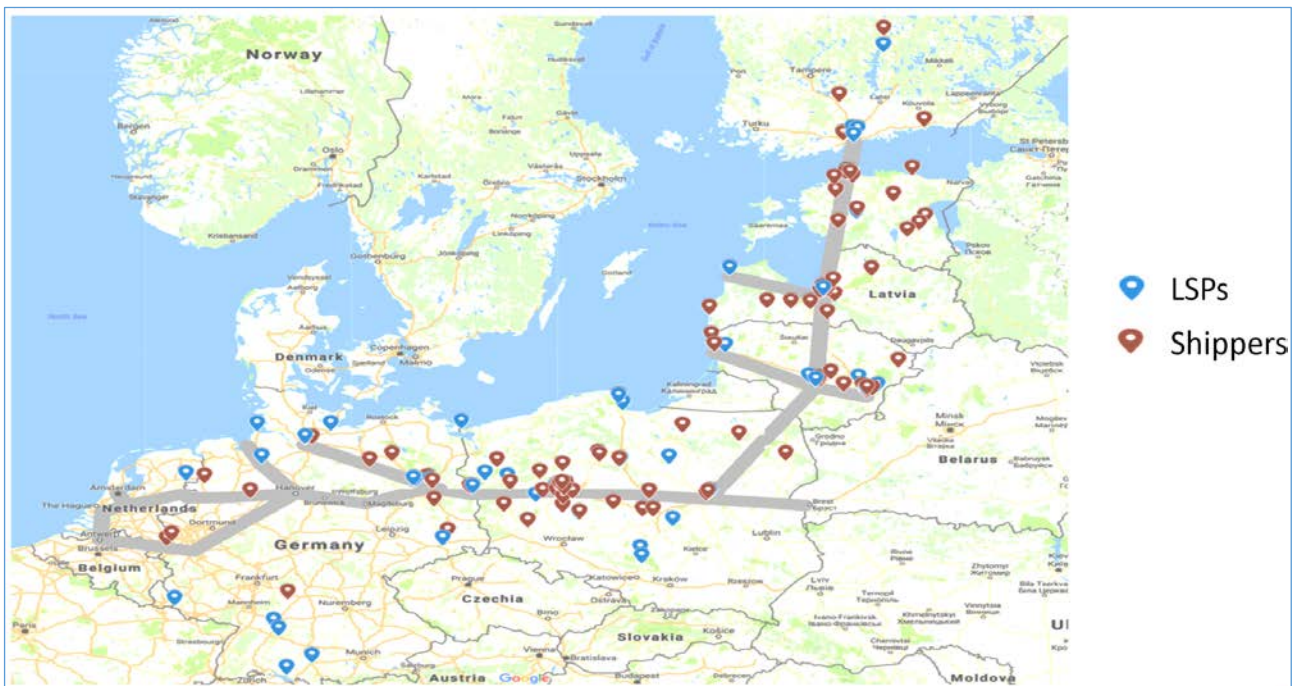


Figure 19: Location of the interviewed companies (own illustration by means of google maps)

Concerning the company size<sup>13</sup> of the interviewees the aim was to mainly interview larger companies as their transport volumes are higher and therefore their statements are more representative in order to derive more

<sup>13</sup> Company sizes have been determined based on the stated numbers by the interviewees according to the thresholds defined in the SME User Guide published by the EU (European Commission, 2003). Partner enterprises and linked enterprises have not been taken into account if not covered by the stated numbers in the interviews.



general conclusions from the interviews. As 37 % of the interviewed companies are medium-sized (more than 50 employees and/or more than € 10 million annual turnover) and 39 % of them are large enterprises (more than 250 employees and/or more than € 50 million annual turnover) the sample can be seen to be of good relevance to the survey. The sizes of interviewed companies are listed in Table 6.

| Company size             | GER       | POL       | LIT       | LAT       | EST       | FIN       | TOTAL      |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Micro enterprises        | 2         | 5         | 3         | 0         | 1         | 0         | 11         |
| Small enterprises        | 7         | 14        | 7         | 14        | 1         | 0         | 43         |
| Medium-sized enterprises | 12        | 23        | 12        | 20        | 13        | 3         | 83         |
| Large enterprises        | 11        | 33        | 7         | 7         | 16        | 14        | 88         |
| <b>TOTAL</b>             | <b>32</b> | <b>75</b> | <b>29</b> | <b>42</b> | <b>30</b> | <b>17</b> | <b>225</b> |

Table 6: Size structure of interviewed companies

Shippers have also been asked for their modal split of all goods in procurement and distribution. Overall the result is as noted in Table 7. As expected there was a big dominance of road transport. The modal split has been determined as average of stated modal split shares by number of interviewed companies because many of the interviewed companies were not willing to give data concerning their transport volumes.

| Transport mode | GER | POL | LIT | LAT | EST | FIN | TOTAL |
|----------------|-----|-----|-----|-----|-----|-----|-------|
| Road           | 87  | 94  | 89  | 83  | 72  | 82  | 84    |
| Rail           | 4   | 4   | 6   | 6   | 3   | 5   | 5     |
| Water          | 9   | 1   | 14  | 8   | 21  | 13  | 9     |
| Air            | 1   | 1   | 1   | 3   | 3   | 0   | 2     |

Table 7: Average modal split in % by number of interviewed companies

The numbers are not comparable to the official statistics from Eurostat because Eurostat statistics are related to transport volumes and only depict the land transport. As the water transport via North Sea and Baltic Sea plays a big role especially for the interviewed shippers especially in the Baltic States and Finland we have more transport on water than in the official statistics as these only refer to inland waterways which play nearly no role in these countries. There is also a big difference in use of rail transport which has a bigger share in official statistics in each of the partner countries. In the Baltic States this could also be because of the big share of rail transport in East-West direction (along existing broad gauge rail network) whereas the interviewed shippers are chosen in a way to have big transport flows along the corridor, e.g. in North-South direction where an adequate rail network is not existing yet. The official statistics of the modal split in the partner countries are given in Table 8.

| Transport mode  | GER | POL | LIT | LAT | EST | FIN | TOTAL EU28 |
|-----------------|-----|-----|-----|-----|-----|-----|------------|
| Road            | 65  | 84  | 65  | 44  | 67  | 74  | 76         |
| Rail            | 24  | 16  | 35  | 56  | 33  | 26  | 18         |
| Inland Waterway | 11  | 0   | 0   | 0   | 0   | 0   | 6          |

Table 8: Modal split of goods land transport 2015 (Eurostat, 2017)

### 4.3 Interview results

As stated above, shippers and LSPs had been asked to rank the most important barriers to intermodal transport on a scale from 1 (no barrier at all) to 6 (very big barrier). Overall the project partners defined a number of 20 barriers which are of big importance from their point of view. But as not each barrier is important for each interviewee, the questionnaires have been split into shippers and the five categories of LSPs. Table 9 gives an overview of the barriers and who was asked to rank which of them.

In order to make the evaluation of the barriers easier and clearer, the barriers had been further categorized into the six main categories: cost, transit time, security, network, resources and information. Table 9 also shows which barrier belongs to which category.

| Category     | Barrier                                   | Freight forwarder | Logistic Intermodal operator | Service Rail carrier | Providers Container terminal | Road carrier | Shippers |
|--------------|---|-------------------|------------------------------|----------------------|------------------------------|--------------|----------|
| Cost         | Not competitive towards road transport    | X                 | X                            | X                    | X                            | X            | X        |
|              | High fee for access to infrastructure     |                   | X                            | X                    | X                            |              |          |
| Transit time | Long transit time                         | X                 | X                            | X                    | X                            | X            | X        |
|              | Lack of reliability / schedule deviations | X                 | X                            | X                    | X                            | X            | X        |
|              | Lack of flexibility                       |                   |                              |                      |                              |              | X        |
| Security     | Low security of cargo                     | X                 | X                            | X                    | X                            | X            | X        |
|              | No track and trace service available      | X                 | X                            | X                    | X                            | X            |          |
| Network      | No adequate network (density)             | X                 | X                            | X                    | X                            |              | X        |
|              | Lack of logistics centres nearby          | X                 | X                            | X                    | X                            |              |          |
|              | No open terminals for every carrier       |                   | X                            | X                    | X                            |              |          |
|              | Different track gauge                     |                   | X                            | X                    |                              |              |          |
|              | Change of locomotives at borders          |                   | X                            | X                    |                              |              |          |
|              | Inadequate frequency                      |                   |                              |                      |                              |              | X        |
| Resources    | Infrastructural bottlenecks               |                   |                              |                      |                              |              | X        |
|              | Shortage of rolling stock                 |                   | X                            | X                    |                              |              |          |
|              | Shortage of multi system locomotives      |                   | X                            | X                    |                              |              |          |
|              | Short. of qualified locomotive drivers    |                   | X                            | X                    |                              |              |          |
|              | Small freight volumes                     |                   |                              |                      |                              |              | X        |
| Information  | Poor exchange of EDI messages             | X                 | X                            | X                    | X                            | X            |          |
|              | No information about connections          | X                 | X                            | X                    | X                            | X            | X        |

Table 9: Categorisation of barriers to intermodal transport

In general, the results of the survey show that shippers are more critical of intermodal transport than LSPs. As Figure 20 shows, each category of barriers has been ranked higher by the shippers. A reason for this could be that they are not as familiar to intermodal transport as LSPs are.

Furthermore, it came out that cost are the most important barrier either for LSPs (average ranking of 3.9) or shippers (4.4) and that security reasons as well as resources do not have as much influence on transport decisions as the other barriers for both groups.

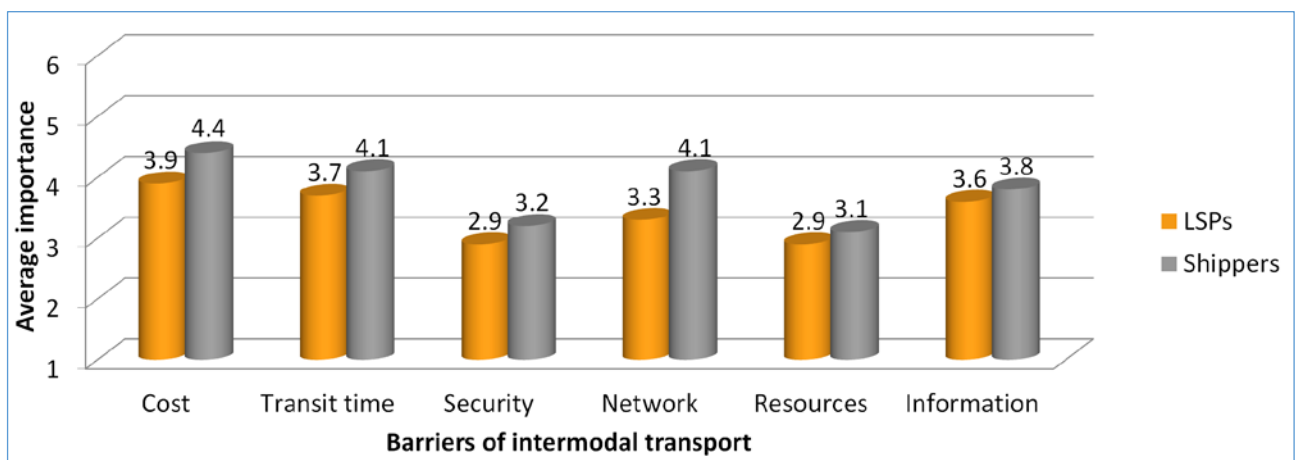


Figure 20: Importance of barriers to LSPs and shippers

Table 10 shows the average ratings of the categories of barriers of intermodal transport more detailed by the interviewees' roles in the supply chain. For each respective group of companies the most important barriers are marked red, the second most important barriers are orange and the third most important barriers are yellow. Looking more into details, we can see that only for container terminals (position 2) and road carriers (position 3) the price is not the most influencing factor. Considering that road carriers would more or less gain from higher prices of intermodal transport and the container terminals are not directly affected by increasing prices (because only their clients would suffer), this is not surprising. Although cost barriers are rated relatively high (3.7) by container terminals and road carriers the transit time is the most important barrier for them.

| Barrier category | Freight forwarder | Intermodal operator | Rail carrier | Container terminal | Road carrier | Shippers |
|------------------|-------------------|---------------------|--------------|--------------------|--------------|----------|
| Cost             | 4.2               | 4.0                 | 4.0          | 3.7                | 3.7          | 4.4      |
| Transit time     | 3.7               | 3.0                 | 3.1          | 3.9                | 4.0          | 4.1      |
| Security         | 3.0               | 2.7                 | 2.1          | 2.3                | 3.1          | 3.2      |
| Network          | 3.9               | 3.0                 | 3.3          | 2.6                | ---          | 4.1      |
| Resources        | ---               | 2.8                 | 3.0          | ---                | ---          | 3.1      |
| Information      | 3.8               | 3.1                 | 3.6          | 3.3                | 3.7          | 3.8      |

Table 10: Average ranking of barriers by companies' roles in the supply chain

Moreover, we can see that the transit time also plays a big role for freight forwarders (3.7) and shippers (4.1). This shows that it is crucial to offer intermodal services with compatible transit times. An efficient high speed railway infrastructure is prerequisite for this. A good intermodal network is also important especially for shippers (4.1) and freight forwarders (3.9). Looking at the detailed barriers of the network category in Table 9 we see that here also the infrastructure plays a big role as obviously the density of intermodal logistics centres and intermodal train relations are not sufficient for the target group. All in all, it is not surprising that cost, time and infrastructure are among the most important barriers of intermodal transport.

A more interesting result is the importance of information aspects. A separate analysis of the 2 under information grouped barriers "poor exchange of EDI messages" and "no information about intermodal connections" reveals that the latter is especially a problem for freight forwarders (4.0), road carriers (3.8) and shippers (3.8). These target groups need more information about the possibilities that intermodal transport offers to them. The other target groups being definitely already active in intermodal transport have, of course, sufficient knowledge about it. Concerning the exchange of EDI messages only the intermodal operators have ranked this barrier relatively moderate (3.0). On the other side freight forwarders (4.0), rail carriers (4.1), container terminals (3.8) as well as road carriers (3.8) see substantial problems in this field.<sup>14</sup>

| LSPs         | GER | POL | LIT | LAT | EST | FIN |
|--------------|-----|-----|-----|-----|-----|-----|
| Cost         | 3.9 | 4.1 | 3.9 | 3.3 | 4.6 | 3.9 |
| Transit time | 3.8 | 4.0 | 4.1 | 2.9 | 3.6 | 3.7 |
| Security     | 3.5 | 3.0 | 3.1 | 2.2 | 2.6 | 2.5 |
| Network      | 3.5 | 3.3 | 2.8 | 3.1 | 4.1 | 3.6 |
| Resources    | 2.4 | 3.0 | 2.8 | 2.3 | 5.7 | --- |
| Information  | 4.1 | 4.0 | 3.5 | 3.3 | 3.0 | 3.3 |

Table 11: LSPs' ranking of barriers by country

| Shippers     | GER | POL | LIT | LAT | EST | FIN |
|--------------|-----|-----|-----|-----|-----|-----|
| Cost         | 4.1 | 4.3 | 5.2 | 4.6 | 3.8 | 4.6 |
| Transit time | 4.3 | 4.1 | 4.6 | 3.8 | 3.9 | 4.0 |
| Security     | 2.9 | 2.7 | 4.2 | 3.7 | 3.1 | 2.4 |
| Network      | 4.6 | 4.2 | 4.4 | 3.5 | 4.3 | 3.0 |
| Resources    | 2.7 | 3.3 | 4.7 | 3.2 | 2.5 | 1.4 |
| Information  | 4.1 | 3.6 | 4.5 | 4.7 | 2.9 | 3.0 |

Table 12: Shippers' ranking of barriers by country

The results of the barriers ranking for each partner country are illustrated in Table 11 (for LSPs) and Table 12 (for shippers). In most cases, the tendencies are in line with the average rankings across all countries. Here, we will look at the most noticeable deviations. The high ranking of the resources by Estonian LSPs (5.7) is likely resulting from the small sample of only 3 LSPs (2 rail carriers and 1 container terminal) which have been asked about the resources.<sup>15</sup> There is no ranking of the resources category because in Finland neither rail carriers nor container terminals could have been interviewed. On the other hand the quite low ranking of resources by the shippers from Finland (1.4) is due to the fact that exclusively large enterprises were among interviewed shippers in Finland who have no problems getting a critical volume of goods for using intermodal transport. Another remarkable ranking is that for the cost barrier by Lithuanian shippers (5.2). On one hand the Lithuanian road transport has very attractive prices so that it is convenient for shippers to use this transport mode. On the other hand we can see from Table 12 that Lithuanian shippers are very critical towards each category of barriers of intermodal transport. This can also be seen when we compare the Lithuanian shippers' ranking of the overall low rated categories security (4.2) and resources (4.7) to the other countries. In contrast, we can see from Table 11 that Latvian LSPs are less critical over all categories.

Shippers did also have the chance to note further barriers that are not given in their questionnaire. The most frequently (five times) mentioned barriers have to do with last mile or door-to-door solutions. Some shippers simply have a lack of information about these solutions and do not know how to get the goods from the container terminal to their facilities. Some stated that the cost for the last mile additionally necessary

<sup>14</sup> In activity 2.3 "ICT solutions for intermodal transport" of the NSB CoRe project this issue will be considered deeper.

<sup>15</sup> cf. Table 4 in conjunction with Table 9

handlings in case they have no own rail access would be too expensive. Further four shippers stated that their industry and the used types of cargo are not suitable for intermodal transport or that their whole manufacturing process would need to be changed if they want to use rail transport. These shippers are active in the fields of wood and metal industries. Another four shippers complained about missing or inadequate access of intermodal transport to hinterland and peripheral regions.

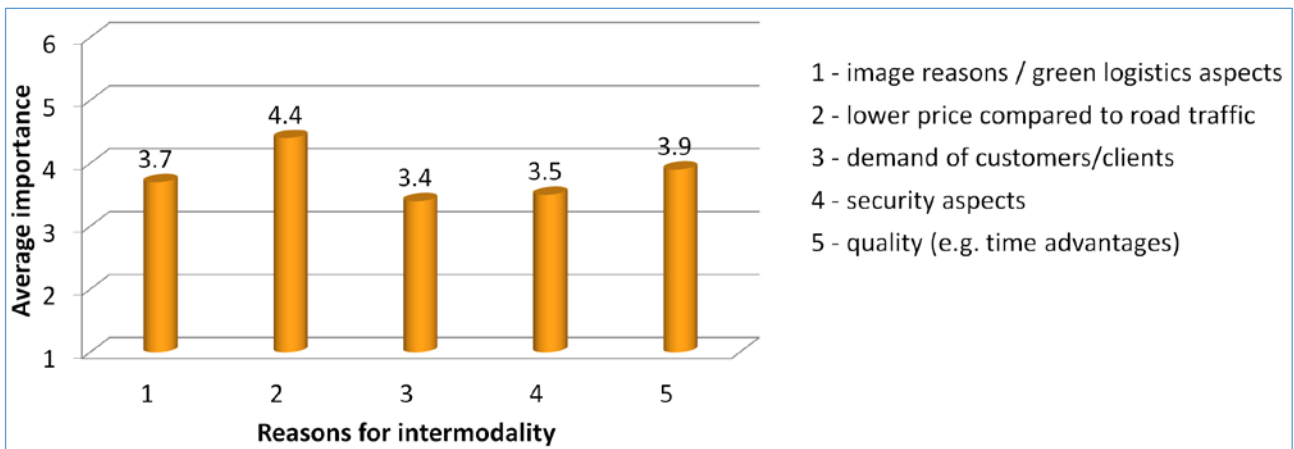


Figure 21: Importance of advantages of intermodal transport to shippers

In addition to the barriers, shippers have been asked to rank also some advantages of intermodal transport. The results are given in Figure 21. It can be seen that the price is by far the most important advantage. So altogether the price is the most striking argument for or against intermodal transport. If the price is compatible to road transport prices companies will also use more rail transport. The quality and time is the second most important reason for shippers to use intermodal transport. As time is also ranked 2<sup>nd</sup> in barriers this shows again the importance of a good quality and service in intermodal transport. Interesting is also that image reasons or green logistics aspects are ranked relatively high (3.7). The reasons stated under the open question for other barriers take the same line: Time savings on rail due to the bad condition of the partly overcrowded road infrastructure had been mentioned most (four times). At least three shippers noted social responsibility or sustainability aspects to be also important things to consider.

Moreover, there had been some open / qualitative questions in the survey. Shippers have been asked what needs to be changed to shift more goods from road to combined transport, especially on future Rail Baltica. The results are given below, the number in brackets shows how often measures have been mentioned (multiple answers had been possible):

- Improve competitiveness in terms of prices / subsidisation (17)
- More flexibility / higher frequency of connections (17)
- Improve shipping times and handling times in terminals (16)
- More / better (local/inland) terminals and logistic centres with warehouse capacities (12)
- Improvement of access and infrastructure (10)
- Quality / services / better solutions for special goods and loading units / side loading of containers (9)
- Paucity of information: Improve awareness for the alternatives of combined transport also in terms of sustainability / More transparent information / lack of public information on Rail Baltica (8)

On the other side, LSPs have been asked about main trends and the future of intermodal transport, especially linking the markets of Western Europe with the Baltic States. The main results are as follows:

Trends:

- Intensive development of new transport corridors (Silk Road etc.)
- More types of services (swap bodies, trailers, piggyback, 45' containers)

Conditions of success:

- Improvement of terminal networks
- Effective EU transport policies

Possible threats:

- Lack of competitiveness due to very low rates in road transport
- Volume business is vulnerable for price fluctuations
- Self-driving trucks

## 4.4 Roundtable meetings

In each of the partner countries a roundtable meeting has been conducted by the project partners in the respective country. The overall structure of the meetings was mainly similar, but with some regional specialties in each country. Following some welcoming words the NSB CoRe project with its structure and aims was explained. Afterwards, the current status of Rail Baltica development was presented (by a member of RB Rail in most cases) as well as the results of the interviews with shippers and LSPs (by project partners or external experts who conducted the interviews). After these introductions there was time for discussions and further remarks and requests by the participants.

### 4.4.1 Roundtable meeting – Germany

The German roundtable meeting took place on 11 May 2017 on the occasion of *transport logistic exhibition* in Munich. The audience consisted of about 40 constantly present participants and passers-by at the Fair, with a mixed international background that are found at this leading logistics. After some welcoming words by Ingo Egloff (CEO at Port of Hamburg Marketing) presentations were held by Stefan Breitenbach (Head of Project Department at Port of Hamburg Marketing Reg. Assoc.) about NSB CoRe project and first results from the interviews, by Kaspars Briskens (Business Development Manager at RB Rail) about Rail Baltica project and the current status of the infrastructure development and by Zuhail Nalbant (Rail Freight Corridor Manager at DB Netz) about the development of the Rail Freight Corridor 8 North Sea-Baltic which is not the same as the TEN-T corridor North Sea-Baltic and has a similar but not identical routing.

The interview results showed the transit time and costs compared to road transport are a major issue for the companies, followed by lack of flexibility and the concomitant inadequate frequency between intermodal terminals. The lack of terminals in the vicinity – or service problems with the terminals nearby and infrastructural bottlenecks were also regarded as major issues. The Rail Baltica AS presentation suited well with these mentioned concerns as it illustrated the complexity of the project, but also its potentials.

Germany has a traditionally strong hinterland towards Poland with more than 70 marketed train departures per week (Port of Hamburg Marketing, 2017). Therefore, the connection of the North Sea – Baltic Corridor with the Rail Baltica project offers potential. Additionally, there are 6 departures to Belarus as the gateway to the Belt and Road project of the Chinese government.

The potential freight flow along the Rail Baltica itself is illustrated above (chapter 2). However the connection of this new transport corridor to Adriatic and Black Sea ports as gateways as well as the rail connection to China should also be noted. Furthermore the long distance offers a price advantage, adds to the Single Market approach of the EU and the increasing cargo flows and the potential hub functionality of intermodal terminals along the Rail Baltica.

Further potentials derive from transport of conventional cargo between distribution centres in swap bodies, the trailer transport organised on regular train systems and RoLa. Other aspects that are important are the improvement of terminal networks through open access, digitalisation of information exchanged and cooperation between operators. On an EU transport policy level the external costs of transport modes need to be levelled, integrated across borders and environmental restrictions considered.

Nevertheless, the feedback also highlighted that the following characteristics are critical for intermodal transport to be a viable option:

- Improved competitiveness in terms of prices
- Better flexibility and improved connection frequency
- Improved handling times at terminals
- Better connectivity of-, or additional terminals and logistics centres with warehouse capacities
- Improved access to services, networks and infrastructure
- Quality of services and better solutions for special cargo and the loading of those

The DB Netz contribution highlighted that the Rail Freight Corridors are conducted by infrastructure managers and allocation bodies who are supervised by transport ministries and the EU Member States. Furthermore, it is the infrastructure managers that adjust their business models to the needs of international customers. In that essence the customer can make use of the North Sea – Baltic Rail Freight Corridor since November 2015 and it offers coordinated and harmonised path catalogues, a single point of contact, protected pre-arranged paths for reliability, a single booking tool for the entire international path request and timetable and full information to customers. This is achieved through a “one-stop shop” that acts on behalf of all infrastructure managers and allocation bodies. It is also the only authorised contact point for allocation of corridor products. Any train that crosses at least one border on the freight corridor can be queried for infrastructure capacity and answers received. If another Rail Freight Corridor is involved, the one-stop shop will coordinate with the other one-stop shop. This, along with efforts to also coordinate operational fields,



increases quality of operation for customers. DB Netz also highlighted that currently the corridor is mostly used by shipping agents up to Warsaw, Poland. This is due to the modern infrastructure available. Therefore DB Netz pointed out that - once they, together with their Baltic partners, improve the current standards and meet general criteria for cross-border transportation.

As a general conclusion from the German roundtable meeting it can be said that Rail Baltica project is new to most participants and its implementation too far ahead. Therefore, little knowledge is present. But once informed, parties involved do show big interest. It can therefore be concluded that more public relation activities towards this project and the North Sea – Baltic Corridor has to be carried out to illustrate and discuss the advantages for stakeholders along these corridors. Generally, the issue with schedules and competition pressure from road and inland shipping was outlined.



*Kaspars Briškens, Business Development Manager, RB Rail*



*Roundtable Meeting in Munich, Germany*

#### 4.4.2 Roundtable meeting – Poland

26 people participated in the Polish roundtable meeting that was held in Sopot on 19 June 2017. The participants were mainly representing the Polish sea container terminals (Gdańsk, Gdynia) and intermodal operators cooperating with the ports. The roundtable was divided into two parts. At first, Marcin Foltyński (Institute of Logistics and Warehousing - ILiM) presented the NSB CoRe project, the main results of the interviews and the main facts about Rail Baltica development. Afterwards, together with Ewa Jaskólska (ILiM) workshops were conducted using Design Thinking method<sup>16</sup> during which Rail Baltica issue was discussed as cooperative or competitive project to services provided by LSPs.

The stakeholders identified the development and modernisation of Rail Baltica railway infrastructure as a positive element in the context of the constant growth of intermodal transport volume. The new railway between the Baltic Sea countries and the EU will have a positive impact on the sustainable development of the entire Central and Eastern Europe region and will positively influence the growth of Polish exports. It is also important to create a comprehensive and interoperable rail system connecting Central and Eastern Europe with Scandinavia, CIS countries and China (via Silk Road), which will contribute to the creation of new industrial zones and communication nodes and will affect the development of distribution centers in national markets. It will also create conditions for the emergence of new business opportunities, such as the construction of an international hub for products imported from China via Silk Road in Poland. The positive impact of the investment on the environment, in particular as an alternative to existing road transport connections, has also been noticed.

On the other hand, representatives of sea container terminals, expressed concerns about the development of Rail Baltica railway, due to the potential diminishing importance of Polish Baltic ports, affecting the decrease in the amount of cargo handling by feeder connections from Gdańsk and Gdynia to Baltic Sea states and Russia. Other participants believe that the development of rail transport (Rail Baltica) wouldn't be

<sup>16</sup> Design Thinking attempts to inspire the essential element of creativity, the ability to take an abstract idea and create something with it. It's based upon the fundamental belief that an unexecuted idea, one that is never realized, is a worthless proposition and that doing is equally as valuable as thinking.

A big part of the Design Thinking concept involves empathy for those you are designing for. It's often manifested through a series of activities, which attempt to create an experience of what or how your idea will ultimately be consumed.

The interesting part of Design Thinking is like the creativity it attempts to foster, the very concept itself is continually evolving. One example of a design thinking process could have several stages: Empathise, Define, Ideate, Prototype and Test. Within these steps, problems can be framed, the right questions can be asked, more ideas can be created, and the best answers can be chosen. The steps aren't linear; they can occur simultaneously and can be repeated.

a threat to Polish ports because of lower sea transport costs comparing to rail connections, especially for long distances, due to the high costs of access to railway infrastructure. Rail Baltica can create competition for Polish ports, however, according to the LSPs, the potential outflow of cargo will be balanced by the globally ever-growing volume of container shipments.

A potential decrease in railway capacity as a result of the increasing number of trains was also defined as a threat/barrier for development of Rail Baltica. This situation is caused by the constantly increasing number of trains on the land connection from China (Silk Road) and has been noticed recently in the Łódź Container Terminal (Spedcont) impact area.

Participants stated that, thanks to the unified rail infrastructure in entire the European Union, there is considerable potential for a freight shift from truck transport to rail. The fee for railway carriers for access to infrastructure was found as a key factor for increasing the importance of Rail Baltica. Existing fees are too high and should be decreased to make Rail Baltica competitive to road transport. Some of the stakeholders expressed an opinion that Rail Baltica will never become competitive for truck deliveries because of low freight rate at road transport.

In order to obtain a strong competitive position for rail transport, Rail Baltica and the European Union need to implement a series of measures:

- streamlining the functioning of the container terminals network (investment expenditures for their modernisation and reconstruction),
- consolidation between intermodal operators,
- the openness of terminals for all railway carriers,
- increased cooperation between rail network administrators in the particular country and
- unified transport policy in the EU in terms of equalising external transport costs and cross-border integration.

During the discussion, there were also concerns about the success of the Rail Baltica project as depended on Russian carriage of goods (embargo) and the reluctance of the Baltic States to make their ports, railway infrastructure and transport market open. Participants considered to what extent railway infrastructure administrators from the Baltic States will be open to running business activities for logistic operators from other countries in their area (this barrier was identified mainly in Lithuania).

Concerning the effect of the Chinese Silk Road project it was underlined that Poland is an attractive place for locating European hubs for products imported from China by land, both due to geographical conditions (central location in Europe, accessibility to the Baltic Sea) as well as political conditions (neighbouring with Germany and other countries or be the external border of the European Union). A combination of cooperation between dynamically developing Silk Road and projected Rail Baltica will effect on increasing participation of railway transport, and container terminals located inside the country (e.g. Łódź) which will need to be prepared for the development of infrastructure to handling transport of goods from China.



*Marcin Foltyński, Institute of Logistics and Warehousing - ILiM*



*Roundtable Meeting in Sopot, Poland*

#### *4.4.3 Roundtable meeting – Lithuania*

The Lithuanian roundtable meeting took place with 22 participants in Raudondvaris, Kaunas district on 28 June 2017. After the welcome by Jonas Gurskas (Deputy Mayor of Kaunas District) presentations were held by Nerijus Kaučikas (Deputy Director of Development and International Relations Department at Ministry of Transport and Communications of Lithuania) about the NSB corridor development especially in Lithuania and about Rail Baltica project, by Vaidas Gričius (Director of Industry and Trade Department of the Ministry of Economy of Lithuania) about the promotion of industrial enterprises, by Malla Paajanen (Regional Council Chief adviser at NSB CoRe lead partner of Helsinki-Uusimaa) about the NSB CoRe project, by Ignas

Gedgaudas (Chief Specialist of the Integration into the European Railway Network at Lithuanina Railways) about the perspective of Lithuanian Railways in freight transport to Western Europe, by Mantas Kaušyla (Deputy Director at UAB „Rail Baltica Statyba (construction)“) about the development of Rail Baltica project in Lithuania and by Andrius Jaržemskis (Director at consultative company Smart Continent) about the results and conclusions from the interviews. The key points of the following discussion are as follows:

The representative of the Ministry of Transport and Communications emphasized that the mission of the Ministry is to harmonise the competitive conditions for road and rail transport, which should be realised through more adequate road charging and development of railway infrastructure. However, the main attraction for the use of Rail Baltica is the fact that goods are transported through Lithuania, but not only the Lithuanian section but also Poland and Latvia are important. Unless and until the railway infrastructure in these countries is not adequate and attractive for shippers, Lithuania will not be able to ensure the use of the Rail Baltica line. During the discussion, it was emphasized that about 20 million EUR excise duty is paid by the railway company for fuel that is used for the development of motorways only, and this strengthens the road but not the railway sector. According to this circumstance, the need for a fair distribution of fuel excise duties for road and rail infrastructure, in particular the part that is paid by the carriers themselves has been expressed.

Furthermore, it has been noted that very good EU initiatives, such as the Marco Polo program, which funded the launch of such an intermodal container train like Mercury, especially at an early stage. Kaunas District Municipality has declared that they are ready to contribute to the incentive to use Rail Baltica, especially as regards planning and allocation of territories.

A representative of the Terminal Management Center of “Lithuanian Railways” AB emphasised the need to take examples from Switzerland and Austria, where truck transport is limited and intermodal solutions offered simultaneously. An LSP representative of noted that rail freight transport through Poland is complicated by the tariff policy which is applied by Poland, where the local (more expensive) tariff, instead of the transit (less expensive) tariff, is applied to the Polish railways in the direction of Šeštokai (Lithuania), as is the Brest (Belarus) direction. It was also underlined that rail transport in Lithuania should be more differentiated from the infrastructure manager than it is now, as this would lead to better competition. In addition, new carriers have very high entry barriers to investment.

The Ministry of Economy has stated that the time of delivery for companies, and even more precisely, the accuracy of time is very important. Exporting companies have very strict delivery terms from their overseas clients and late penalties are subject to fines. As a result, road transport is chosen because it is at least as accurate in this respect.

A large warehousing business representative that was not able to join the meeting wrote some of his key ideas and asked to include them into the protocol of discussion:

*The volume of cargo to the third countries is a little grown. The potential exist and it could be significantly higher. There is a lack of cooperation between government institutions and the policy of promoting the distribution of business, transit and re-export through Lithuania. After the entry into force of the new Customs Code of the European Union, freight forwarders see the relevant Lithuanian customs policy, which has a policy of tightening control, expediting and punishment policies, and imposing superfluous administrative requirements. For these reasons, the flow of transit and re-exports is already bypassing Lithuania.*

Summarizing the whole discussion, the main conclusions and recommendations would be:

- Price and delivery time remain the most important criteria for choosing transport.
- There is a need for harmonization of the competitive conditions for road and rail transport in particular regarding the redistribution of excise duty on infrastructure financing.
- Municipality will contribute to the spatial planning solutions.
- The support of the Baltic Sea, along with the development of infrastructure and tariff policy, is required in Poland, Latvia and other countries along the North Sea Corridor.





*Roundtable Meeting in Raudondvaris, Lithuania*

#### *4.4.4 Roundtable meeting – Latvia*

23 participants took part in the Latvian roundtable meeting that was organised at Riga City Council on 20 October 2017. Presentations were held by Rudolfs Cimdins (Head of spatial planning unit at Riga Planning Region) about the NSB CoRe project, by Kaspars Rokens (COO and member of the management board at RB Rail) about the idea of building Rail Baltica and the progress of works and by Natalja Sterhova (Transport and logistics expert at STS Consulting, Ltd.) about the results and conclusions from the interviews.

First of all, the participants noted the need to transfer to Rail Baltica not only the flow of passengers but also freight flows, as well as the fact that currently the Rail Baltica route is very intensive in the transportation of goods by road. A representative of Latvian Ministry of Transport provided information on the transition scheme currently being developed in the Ministry. According to the scheme a new system for calculating infrastructure costs for rail transport will be introduced from 2019 that will significantly reduce railway tariffs for cargo transportation in the European transport area. The state will support the new system and subsidise it. Reducing the cost of cargo transportation by rail will contribute to the attractiveness of Rail Baltica for LSP and Shippers.

The planned network of multimodal centres Muuga-Salaspils-Kaunas, which will be used for cargo reloading, consolidation, regrouping and shipment in containers or trailers on platforms (piggyback), was also referred to as an advantage of launching Rail Baltica. The participants of the discussion noted also the possibility of using new types of cargo transportation, such as transportation of trailers according to the regular train scheme. As advantages of goods transportation on Rail Baltica, such factors as noise reduction, safety and lower carbon footprint were mentioned too.

At the same time, the main accent was put on the barriers, which are in the opinion of LSP representatives on the way of Rail Baltica development. The participants of the discussion unanimously noted the high cost of transporting goods by rail due to high railway tariffs. In addition, the main partners of Latvia for export and import are neighbouring countries, the transportation of goods to which by rail is unprofitable because of the short distance of transportation, which significantly increases its transit time. At such short distances, it is much more advantageous to transport goods by road. As existing barriers, factors such as the weak development of the intermodal network of cargo transportation, the shortage of open logistics centres, as well as the lack of public information about Rail Baltica and the possibilities for intermodal transport of goods were also cited as existing barriers.

Participants in the discussion do not see competition with feeder and freight ferry connections, rather interaction is supposed. On the one hand, it is planned to develop special ferries (for example, Helsinki - Tallinn) only for the carriage of trailers, which can then be transported by Rail Baltica. On the other hand, sea containers from the ports are more likely to be delivered by road with a more elastic price policy and the absence of last mile problems (additional handling). In case the flow of containers from China will go to Latvia, they can be transported on feeder lines further.

Concerning competition to road transport and opportunities to implement large-scale deliveries of lorries on railway platforms (known as Rollende Landstrasse – RoLa), discussed in a comprehensive manner. They expressed their opinion that there are real prerequisites for the transfer of a significant part of the freight traffic from trucking to transportation by rail: The roads are now very busy, there are not enough drivers and the social factor (the long absence of drivers at home) is sharply rising. Leading Shippers of the participating

countries of the project (Finland, Germany and Poland) during the meetings in the framework of discussing the perspectives of Rail Baltica demonstrated a clear interest in the transfer of part of their cargo to the railway.

At the same time road haulers, both large and small, are considering the possibility of transporting lorries by rail. In this case, it is necessary to solve a number of questions on equipment standardization, rules and conditions for receiving and servicing trailers at terminals of the countries participating in the transport corridor. At the same time, the level of tariffs for transporting trucks on railway platforms is important too.

Referring to the possibility of a railway link with China (Silk Road) participants believe that the economic effect for Latvia will be very significant in case of launching Rail Baltica and forming a cargo flow from China (New Silk Road project, Northern channel of One Belt, One Road project) to Latvia. Latvia in this case can be considered as a hub for receiving goods from China, consolidating, processing and transporting them further through the port, by road, by rail, using the potential of the Rail Baltica, as well as multimodal centres. Rail Baltica in this case is an advantage for transporting goods from a stable EU country to the Nordic countries and Germany (compared to Belarus, for example).

The participants of the Latvian Round Table meeting expressed a general final wish to provide regular information on the development of the North Sea Baltic Connector of Regions project, as well as broad public information on the development of Rail Baltica.



*Patriks Markēvičs, Latvian Ministry of Transport*



*Roundtable Meeting in Riga, Latvia*

#### 4.4.5 Roundtable meeting – Estonia

48 participants took part in the Estonian roundtable meeting that was held in Tallinn on 24 May 2017. Among them Herald Ruijters (Director DG Move at European Commission) who held a keynote speech, Sakari Saarinen (Senior Advisor at NSB CoRe lead partner Helsinki-Uusima Region) presenting the NSB CoRe project and its aims, Erki Taube (Consultant at Civitta Eesti AS) presenting the results from the interviews, Meelis Niinepuu (Partner and Board Member at Civitta Eesti AS) presenting the Muuga multimodal terminal analysis and Kari Ruuhonen (Project Director at FinEst Link) presenting the FinEst link project and its current status.

The main findings from the discussion are as follows:

The participants voiced a positive attitude towards intermodality and Rail Baltica, arguing for a quick implementation of the infrastructure projects. They noted that in many ways intermodality does not yet exist in Estonia, mostly due to the lack of a proper railway infrastructure (currently, operational only for the decreasing transit to and from Russia). One of the most problematic aspects with the future Rail Baltica is its cost and train schedule frequency. For example, a major forestry company said that they cannot fully prepare a position on the issue until those factors are not known.

Companies responded that the most probable goods to be transported via intermodal solutions are wood, grain, machinery and metals. Some of the participants were sceptical and think that it will be very difficult to win, for example, trade volumes from the ships in the Baltic Sea. Regarding the destination of intermodal transports, the participants seemed to agree that one link is between Finland and Central Europe. In addition, some also saw potential towards the Adriatic Sea. The Arctic Sea route's potential was also discussed. With this, the majority found it hard to see any valid reasons why Chinese/Asian goods should be unloaded in Northern Russia and then shipped via rail through the Baltic States. The more probable scenario would be that the ships still go the ports in Central Europe.

Some raised the concern regarding the financing of Rail Baltica from the European Commission. This concern received a swift response from the European Commission's representative Mr Ruijters who stated the Commission's and the Parliament's continued and lasting support for the project.



The companies noted that containerisation is an increasing trend that needs to be pursued by Estonian transport sector as well. Some companies argued that Estonia can take advantage of Russia by creating a so-called warehousing area in Estonia that can serve the Russian market but thereby avoiding the risks associated with Russian bureaucracy and business environment



*Herald Ruijters, Director DG Move, European Commission*



*Roundtable Meeting in Tallinn, Estonia*

#### *4.4.6 Roundtable meeting – Finland*

The Finnish roundtable meeting was held with 9 participants in Helsinki on 19 August 2017. Introducing presentations were held by Jorma Härkönen (Logistics Director at TechVilla) about the NSB CoRe project in general and about the key findings from the interviews as well as by Kari Ruohonen (Project Director at FinEst Link) presenting the FinEst link project and its current status.

For Finnish industry, trade and LSPs Rail Baltica creates an important new alternative for unit transport to and from Central Eastern Europe. However, there does not seem to be any interest to the whole length of the NSB corridor. Northern Poland, Germany and North Sea ports are well served by efficient shipping connections. This means that the biggest interest focuses on Rail Baltica part of the corridor and part of Poland. Some doubts were given to the technical and interoperational bottlenecks when the train is moving through several countries. Most of the commentators have experience from Central Europe and other parts of the world.

The general opinion of the shippers was that the new connection is no threat at all for existing Baltic and North Sea shipping operators. Finland's export volumes are substantial and the big industries have created systems for sea transport, in some cases by own shipping companies. Nothing changes the fact that Finland is beyond the seas and the major volumes will always be carried by sea. Lorries can be replaced by intermodal transports when the destinations/origins are further south than Baltic countries. There is a preliminary estimate that in 2025 this unit volume could be in the region of 300 units per day. At the moment the balance to and from Poland is good. Interestingly, parts of import from China are coming by train to Warsaw where it is reloaded in lorries to Finland. In this discussion as well as at Central Chamber of Commerce concern was expressed how the present hostile attitude of Polish government to EU will affect the Poland's willingness to invest in modernising the North Eastern problematic parts of the rail corridor.

Container balance and availability of containers will be a critical thing especially for the forest industry companies. In recent years there has been a chronic lack of export containers in Finland mainly because the container imports to St. Petersburg area have gone down due to sanctions and other reasons. This will be a clear challenge for the operators as the whole export/import volumes are not in balance.

Many questions were raised about the system of transporting the cargo across the Gulf of Finland. At the moment most of the units are carried by dense passenger ship connections. Only one ship is dedicated to cargo. There is not, however, any big changes in this, until the possible tunnel connection has been built. But this will take 10-30 years if it ever will be reality.

All in all, there is clear interest among Finnish industries, trade and logistics operators towards the new corridor and more precisely northern part of it. The companies (also logistics operators) do want to favour intermodal transports to lorries if the transport distance is enough long. In practice this means minimum of 400 – 500 kilometres or longer. In Eastern Central Europe the distance minimums are longer due to relatively strong competition situation by lorry operators.

One of the main messages from business representatives is that the new service must be competitive. This does not mean only pricing, but information flow, ICT services and timetable reliability. On the other hand the

sustainability and green logistics solutions are of interest to everybody nowadays. In many cases the customers require it and expect their suppliers to act in that direction. It appears that Finland could be a big beneficiary of the new connection.

## 5 SUMMARY, EVALUATION AND RECOMMENDATIONS

The survey shows that the most important factors for the use of intermodal transport are the competitiveness of prices and delivery times as well as a well-developed infrastructure. These results are not surprising but they give clear hints to the stakeholders on what points have to be considered if the new infrastructure should have a high utilisation. The competitive conditions for road and rail transport have to be harmonised in order to facilitate modal shift from road to rail. Furthermore, it is important to ensure an uncomplicated access to the infrastructure to potential users like shippers and LSPs. This could be facilitated by means like competitive infrastructure fees as well as financial support for intermodal transport and access points (RRTs). As the Rail Baltica route crosses several national borders in (for intermodal transport) relatively short distances it is inevitable to ensure interoperability between the different national transport systems in order to increase reliability and time advantages. The existing shortcomings of interoperability at border stations lead to a loss of time and competitive disadvantages. Further disadvantages appear due to the fact that road transport is pushed by a strong lobby with large impact.

Another important outcome is that the information flow has to be improved in several directions. On the one hand it came out that shippers have a lack of knowledge about intermodal transport in general. In particular, many of them don't know about concrete train schedules and possibilities for the first/last mile and door-to-door solutions. This can be improved by marketing measures of LSPs or other stakeholders of intermodal transport. On the other hand, it turned out that shippers as well as LSPs don't know very much about the Rail Baltica project. Especially in Germany (which is no direct partner country of Rail Baltica) the project is quite unknown and too far away (in terms of distance and especially concerning the time horizon). But the interviews and the roundtable have shown that once they are informed most of them show big interest about the possibilities that this new infrastructure project could offer to them in the future. Also in the Baltic States it was shown that LSPs and shippers want to have more information about the project schedule and concrete information on where intermodal terminals are planned, what frequency of train services is planned and what are the prices for using these services.

This shows that the awareness among the target group has to be improved by marketing measures and intensive communication already now and during the development and building process of the infrastructure in order to have a good utilisation right from the beginning. Communication and coordination among authorities (on local, regional, national European level) is further needed to assure access to railway infrastructure and services for everyone.

But the most important is to facilitate economic growth and job creation along the whole NSB corridor and beyond. A strong economic situation is the best prerequisite to get the most socio-economic benefit from the project.

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## ANNEX 1 – SHIPPERS' QUESTIONNAIRE

ENGLISH
TERMINALS   TRANSPORT   SERVICES   TOURISM   PORTS   MARKETING   LOGIN



  
VESSELS

  
LINER SERVICES

  
INTERMODAL

  
STATISTICS

  
PORTMAP

  
PORT CONTACTS

  
PRESS

  
PORTBLOG

### INTERMODAL SURVEY / North Sea Baltic Corridor

We kindly ask you to complete the following questionnaire. The topics of the survey are the logistics requirements of Logistics Service Providers and their commitment to intermodal supply chains on the North Sea Baltic (NSB) corridor. The aim of this survey is to receive relevant experts' opinions on elements and trends influencing the freight transport in the NSB core area. It supports the relevant stakeholders (e.g. authorities) in developing the intermodal transport solutions within North Sea Baltic Corridor – a detailed route of the corridor is shown on the map below.

You have been selected as one of the experts and we would be pleased to receive your contribution to this survey. Please note that this survey is simultaneously carried out in Germany, Poland, Lithuania, Latvia, Estonia and Finland.

The survey is part of a European project called 'North Sea Baltic Connector of Regions' (NSB CoRe) funded by the Interreg Baltic Sea Region programme.

The NSB CoRe project aims to improve the sustainable accessibility of the Eastern Baltic Sea Region (EBSR) for freight and passenger transport. The project will contribute to the European Union TEN-T Transport Infrastructure Policy, which connects the continent from East to West, North to South, through its implementation on regional and local level, connecting the TEN-T Core Network Corridor (CNC) of North Sea Baltic to its catchment area and access routes in EBSR. The project will support the TEN-T Policy from a regional development perspective and bring the needs of peripheral regions to the CNC context.

For more detailed information about the project, please visit: [http://www.uudenmaanliitto.fi/en/projects/nsb\\_core\\_north\\_sea\\_baltic\\_connector\\_of\\_regions](http://www.uudenmaanliitto.fi/en/projects/nsb_core_north_sea_baltic_connector_of_regions)

The questionnaire consists of open and closed questions. The survey will take approximately 10 minutes and participation is completely anonymous. Your answers will not be public and only aggregated results will be published. Respondents will receive the survey results. If you wish, your name and/or the name of your institution - organisation will be mentioned in the Survey report.

In case of any questions please do not hesitate to contact us: [schlaechter@icob.de](mailto:schlaechter@icob.de) or [rehse@icob.de](mailto:rehse@icob.de)

We thank you in advance for your kind cooperation and valuable support in shaping better freight systems in Europe. The NSB CoRe Project Team.





**Do you want your name and/or the name of your institution/organisation mentioned in the Survey report? \***

Yes

No



|   |  |
|---|--|
| <b>1. Company</b>   |  |
| <b>1.1. Company Name *</b>  |  |
| <input type="text"/>  |  |
| <b>2. Contact Information</b>   |  |
| <b>2.1. Street No. *</b>  |  |
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| <b>2.2. Postal code *</b>   | <b>2.3. Town *</b>   |
| <input type="text"/>  | <input type="text"/>   |
| <b>2.4. Country *</b>   |  |
| Estonia   |  |
| <b>2.5. Contact Person *</b>  | <b>2.6. Position *</b>   |
| <input type="text"/>  | <input type="text"/>   |
| <b>2.7. E-mail *</b>  | <b>2.8. Phone *</b>  |
| <input type="text"/>  | <input type="text"/>   |
| <b>3. Company profile (products)</b>  |  |
| <b>3.1. Economic sector *</b>   |  |
| 3.1.1. Manufacture of food products, beverages and tobacco products   |  |
| <b>4. Number of employees on site</b>   |  |
| <b>Number *</b>   |  |
| <input type="radio"/> up to 10 <input type="radio"/> 11 to 50 <input type="radio"/> 51 to 250 <input type="radio"/> more than 250 |  |
| <b>5. Turnover on site</b>  |  |
| <b>Million (in Euro) *</b>  |  |
| <input type="radio"/> up to 2 <input type="radio"/> 2 to 10 <input type="radio"/> 10 to 50 <input type="radio"/> more than 50     |  |
| <b>6. Transport volumes</b>   |  |
| <b>6.1. Overall transport volume in tons per month *</b>  | <b>6.2. Share of input (procurement) on overall transport volume (%) *</b> |
| <input type="text"/>  | <input type="text"/>   |
| <b>6.3. Share of output (distribution) on overall transport volume (%) *</b>  |  |
| <input type="text"/>  |  |
| <b>7. Main groups of goods in Procurement</b>   |  |
| <b>7.1. Group of goods *</b>  |  |
| <input type="text"/>  |  |

**8. Procurement origin**

**8.1. Where does the input come from (multiple choices possible)? \***

8.1.1 local/regional (national, but up to 50 km)  
 8.1.2 national (more than 50 km)  
 8.1.3 Estonia  
 8.1.4 Finland  
 8.1.5 Germany  
 8.1.6 Latvia  
 8.1.7 Lithuania  
 8.1.8 Poland  
 8.1.9 Overseas  
 8.1.10 Other European countries

**8.2. Please specify if you chose "Other European countries" (e.g. South-west Europe)**

**8.3. Share of input transport**

(values to add up to 100%)

|  |                      |  |                      |
|--|----------------------|--|----------------------|
| <b>8.3.1. local/regional (% national, but up to 50 km) *</b> | <input type="text"/> | <b>8.3.2. % national (more than 50 km) *</b> | <input type="text"/> |
| <b>8.3.3. % Estonia *</b>                                    | <input type="text"/> | <b>8.3.4 % Finland *</b>                     | <input type="text"/> |
| <b>8.3.5. % Germany *</b>                                    | <input type="text"/> | <b>8.3.6. % Latvia *</b>                     | <input type="text"/> |
| <b>8.3.7. % Lithuania *</b>                                  | <input type="text"/> | <b>8.3.8. % Poland *</b>                     | <input type="text"/> |
| <b>8.3.9. % Overseas *</b>                                   | <input type="text"/> | <b>8.3.10. % Other European countries</b>    | <input type="text"/> |

**8.4. How is the modal split of your company's continental input?**

(values to add up to 100%)

|                           |                      |                             |                      |
|---------------------------|----------------------|-----------------------------|----------------------|
| <b>8.4.1. Road (%) *</b>  | <input type="text"/> | <b>8.4.2. Schiene (%) *</b> | <input type="text"/> |
| <b>8.4.3. Water (%) *</b> | <input type="text"/> | <b>8.4.4. Air (%) *</b>     | <input type="text"/> |

**9. Main groups of goods in distribution**

**9.1. Group of goods \***

## 10. Geographic Distribution

### 10.1. Where do the outgoing products go to (multiple choices possible)? \*

- 10.1.1. local/regional (national, but up to 50 km)
- 10.1.2 national (more than 50 km)
- 10.1.3 Estonia
- 10.1.4 Finland
- 10.1.5 Germany
- 10.1.6 Latvia
- 10.1.7 Lithuania
- 10.1.8 Poland
- 10.1.9 Overseas
- 10.1.10 Other European countries

### 10.2. Please specify if you chose "Other European countries" (e.g. South-west Europe)

### 10.3. Share of distribution transport

(values to add up to 100%)

#### 10.3.1. local/regional (% national, but up to 50 km) \*

#### 10.3.2. % national (more than 50 km) \*

#### 10.3.3. % Estonia \*

#### 10.3.4. % Finland \*

#### 10.3.5. % Germany \*

#### 10.3.6. % Latvia \*

#### 10.3.7. % Lithuania \*

#### 10.3.8. % Poland \*

#### 10.3.9. % Overseas \*

#### 10.3.10. % Other European countries

### 10.4. How is the modal split of your company's continental output?

(values to add up to 100%)

#### 10.4.1. Road (%) \*

#### 10.4.2. Rail (%) \*

#### 10.4.3. Water (%) \*

#### 10.4.4. Air (%) \*

## 11. Barriers of combined transport

(please range the importance of the barrier  
1=very low importance  
6=very important)

### 11.1. Costs / too expensive compared to road transport \*

1  2  3  4  5  6

### 11.2. Transit time \*

1  2  3  4  5  6

### 11.3. Lack of flexibility \*

1  2  3  4  5  6

### 11.4. Insufficient knowledge/information about combined transport \*

1  2  3  4  5  6

### 11.5. Security reasons \*

1  2  3  4  5  6

### 11.6. Amount too little for intermodal transport \*

1  2  3  4  5  6

### 11.7. No terminal in the vicinity or service problems with near terminals \*

1  2  3  4  5  6

### 11.8. Inadequate frequency of intermodal transports \*

1  2  3  4  5  6

### 11.9. Lack of reliability (risk of delays/deviations from schedule) \*

1  2  3  4  5  6

### 11.10. Infrastructural bottlenecks \*

1  2  3  4  5  6

### 11.11. Other barriers \*

1  2  3  4  5  6

For "infrastructural bottlenecks" and "Other barriers" please specify

## 12. Reasons for combined transport

(please range the importance of the barrier  
1=very low importance  
6=very important)

### 12.1. Image reasons / green logistics aspects \*

1  2  3  4  5  6

### 12.2. Lower price compared to road traffic \*

1  2  3  4  5  6

### 12.3. Demand of customers/clients \*

1  2  3  4  5  6

### 12.4. Security aspects \*

1  2  3  4  5  6

### 12.5. Quality (e.g. time advantages) \*

1  2  3  4  5  6

### 12.6. Other reasons \*

1  2  3  4  5  6

Please specify any other reasons

13. What needs to be changed to shift more goods from road to combined transport, esp. on future Rail Baltica?

14. Does your company use ICT tools to assist decision-makers in the following fields related to transport?

14.1. Access to information of carriers reputation (i.e. rankings based on KPI) \*

Yes  No

If you chose yes, does this also apply to intermodal transport?:

Yes  No

14.2. Access to market information necessary for optimal delivery planning (i.e. data bases of transport companies, their tariffs and time schedules) \*

Yes  No

If you chose yes, does this also apply to intermodal transport?:

Yes  No

14.3. Consolidation of shipments to reduce costs (i.e. cargo sharing systems) \*

Yes  No

If you chose yes, does this also apply to intermodal transport?:

Yes  No

14.4. Negotiating conditions of freight contract (i.e. freight exchange, e-tender) \*

Yes  No

If you chose yes, does this also apply to intermodal transport?:

Yes  No

14.5. Concluding freight contract (i.e. booking open platforms, booking through carriers web pages) \*

Yes  No

If you chose yes, does this also apply to intermodal transport?:

Yes  No

14.6. Optimal loading of vehicle/container \*

Yes  No

If you chose yes, does this also apply to intermodal transport?:

Yes  No

15. Does your company require to render any of the following services from transport companies?

15.1. Monitoring transport conditions (i.e. temperature, humidity, pressure, doors locked/unlocked) \*

Yes  No

15.2. Track & trace of shipments \*

Yes  No

Further remarks

Absenden



## ANNEX 2 – LSP’S QUESTIONNAIRES

### INTERMODAL SURVEY / North Sea Baltic Corridor

Dear Sir / Madam,

INTERMODAL SURVEY / North Sea Baltic Corridor

We kindly ask you to fill the following questionnaire. The topic of the Survey are the logistics requirements of Logistics Service Providers and their commitment to intermodal supply chains on the North Sea Baltic corridor. The target of this Survey is to receive relevant experts' views on factors and trends influencing the freight transport in NSB Core area. It supports the relevant stakeholders (e.g. authorities) in developing the intermodal transport solutions within North Sea Baltic Corridor – detailed route of the corridor is shown on the map below.

You have been selected as one of the experts with competencies and we would be pleased to receive your contribution to this Survey. Please note that this Survey is simultaneously been done in Germany, Poland Lithuania, Latvia, Estonia and Finland.

The survey is a part of European project called North Sea Baltic Connector of Regions (NSB CoRe) funded by the Interreg Baltic Sea Region programme.

NSB CoRe project aims to improve the sustainable accessibility of the Eastern Baltic Sea Region (EBSR) to freight and passenger transport. The project will contribute to the European Union TEN-T Transport Infrastructure Policy, that connects the continent between East and West, North and South, by taking its implementation to the regional and local level connecting the TEN-T Core Network Corridor (CNC) of North Sea Baltic to its catchment area and access routes in EBSR. The project will implement the TEN-T Policy from a regional development perspective and bring the needs of peripheral regions to the CNC context.

In order to have more detailed information about the project, we invite you to use the following link: [http://www.uudenmaanliitto.fi/en/projects/nsb\\_core\\_north\\_sea\\_baltic\\_connector\\_of\\_regions](http://www.uudenmaanliitto.fi/en/projects/nsb_core_north_sea_baltic_connector_of_regions)

The questionnaire consists of open and closed structured questions. The Survey will take approximately 10 minutes and participation is fully anonymous. Your answers will not be public and only aggregated results will be published. Respondents will receive the Survey results. If you wish, your name and/or the name of your institution - organisation will be mentioned in the Survey report.

In case of any questions please do not hesitate to contact us: [marcin.foltynski@ilim.poznan.pl](mailto:marcin.foltynski@ilim.poznan.pl) or [leszek.andrzejewski@ilim.poznan.pl](mailto:leszek.andrzejewski@ilim.poznan.pl)

We thank you in advance for your kind cooperation and valuable support in shaping better freight systems in Europe.

NSB CoRe project team at Institute of Logistics and Warehousing of Poznan, Poland



If you wish, your name and/or the name of your institution - organisation will be mentioned in the Survey report \*

- YES
- NO

# INTERMODAL SURVEY / North Sea Baltic Corridor

\* Erforderlich

## General Information

Name of the company \*

Meine Antwort \_\_\_\_\_

Country & City \*

Meine Antwort \_\_\_\_\_

Size of company - number of employees \*

(\*Company's classification according to European Commission recommendation no 2003/361/EC)

up to 10

11-50

51-250

over 251

Size of company - Turnover (mio € p.a.) \*

(\*Company's classification according to European Commission recommendation no 2003/361/EC)

up to €2

€2-10

€10-50

over €50

## Interviewee

Name \*

Meine Antwort \_\_\_\_\_

E-mail \*

Meine Antwort \_\_\_\_\_

Position

General management

Operational management

Business development

Other:

Meine Antwort \_\_\_\_\_

## Company's position in a supply chain

\*

- Freight forwarder  
 Intermodal train operator  
 Rail carrier  
 Container terminal  
 Road carrier

## Freight Forwarder

### BARRIERS TO INTERMODALITY

1. What according to you are the biggest barriers to the development of intermodal transport in your country? \*

please range the importance in the scale from 1 (low importance) to 6 (highest importance)

|  | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Too expensive comparing to road transport  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Long transit time  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Frequent deviation from schedule   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low security of cargo  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate information about intermodal transport connections                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Track & trace service not available  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate intermodal terminals network  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of logistics centres rendering additional services nearby the container terminals | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor information exchange between logistics partners in intermodal supply chain        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other , please specify:

Meine Antwort

---

## ICT TOOLS SUPPORTING LOGISTICS SERVICES

2. Does your company use ICT tools to assist decision-makers in the following fields related to transport?

- YES  
 NO

### Collecting orders from the market \*

|                  | NO                    | YES                   | If YES, does it apply also to transport of containers |
|------------------|-----------------------|-----------------------|---|
| freight exchange | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| own web page     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

---

### Presenting own services \*

|                                       | NO                    | YES                   | If YES, does it apply also to transport of containers |
|---------------------------------------|-----------------------|-----------------------|---|
| data bases of delivery planning tools | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| freight exchange                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

---

### Consolidation of shipments \*

|                           | NO                    | YES                   | If YES, does it apply also to transport of containers |
|---------------------------|-----------------------|-----------------------|---|
| freight capacity exchange | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

---

### Cooperation with other logistics services providers at ports \*

|                       | NO                    | YES                   | If YES, does it apply also to transport of containers |
|-----------------------|-----------------------|-----------------------|---|
| Port Community System | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

---

3. Do you offer your clients track and trace services on each segment of journey? \*

- Sea
- Land transport in trucks
- Land transport in container trains

4. Please evaluate the quality of existing system for exchanging electronic messages and documents between your company and the following categories of logistics service providers? \*

|                           | Not existing          | Not satisfactory      | Satisfactory          |
|---------------------------|-----------------------|-----------------------|-----------------------|
| Intermodal train operator | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Rail carrier              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Container terminal        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Road carrier              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

#### SCENARIOS OF THE INTERMODAL TRANSPORT DEVELOPMENT

5. What according to you will be the main trends in intermodal transport in Europe?

Meine Antwort

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6. Do you think that intermodal transport operators dealing in your country have enough volume of goods in order to effectively compete with road hauliers?

Meine Antwort

---

7. How do you foresee the development of intermodal connections in your country in the coming 10 years?

Meine Antwort

---

8. How do you see the future of intermodal connections linking the markets of Western Europe with the Baltic countries?

Meine Antwort

---

ZURÜCK

SENDEN



## Intermodal train operator

### BARRIERS TO INTERMODALITY

#### 1. What according to you are the biggest barriers to the development of intermodal transport in your country? \*

please range the importance in the scale from 1 (low importance) to 6 (highest importance)

|  | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Too expensive comparing to road transport  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Long transit time  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Frequent deviation from schedule   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low security of cargo  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate information about intermodal transport connections                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Track & trace service not available  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate intermodal terminals network  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of logistics centres rendering additional services nearby container terminals | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No open inland terminals accessible for all carriers                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| High access fees to railway infrastructure   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shortage of specialised intermodal rolling stock                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shortage of multi-system locomotives   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of qualified locomotive drivers   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Change of locomotives at borders   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Different track gauge in international railroad connections                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor information exchange between logistics partners in intermodal supply chain    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other , please specify:

Meine Antwort

## ICT TOOLS SUPPORTING LOGISTICS SERVICES

2. Does your company use ICT tools to assist decision-makers in the following fields related to transport?

YES

NO

### Collecting orders from the market

|                  | YES                   | NO                    |
|------------------|-----------------------|-----------------------|
| freight exchange | <input type="radio"/> | <input type="radio"/> |
| own web page     | <input type="radio"/> | <input type="radio"/> |

Other tools, please specify:

Meine Antwort

---

### Presenting own services

|                                       | YES                   | NO                    |
|---------------------------------------|-----------------------|-----------------------|
| data bases of delivery planning tools | <input type="radio"/> | <input type="radio"/> |
| freight exchange                      | <input type="radio"/> | <input type="radio"/> |

Other tools, please specify:

Meine Antwort

---

### Consolidation of shipments

|                           | YES                   | NO                    |
|---------------------------|-----------------------|-----------------------|
| freight capacity exchange | <input type="radio"/> | <input type="radio"/> |

Other tools, please specify:

Meine Antwort

---

### Cooperation with other logistics services providers at ports \*

|                       | YES                   | NO                    |
|-----------------------|-----------------------|-----------------------|
| Port Community System | <input type="radio"/> | <input type="radio"/> |

Other tools, please specify:

Meine Antwort

---

3. Do you offer your clients track and trace services? \*

YES

NO

4. Please evaluate the quality of existing system for exchanging electronic messages and documents between your company and the following categories of logistics service providers? \*

|                    | Not existing          | Not satisfactory      | Satisfactory          |
|--------------------|-----------------------|-----------------------|-----------------------|
| Freight forwarder  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Rail carrier       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Container terminal | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Road carrier       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### SCENARIOS OF THE INTERMODAL TRANSPORT DEVELOPMENT

5. What according to you will be the main trends in intermodal transport in Europe?

Meine Antwort

---

6. Do you think that intermodal transport operators dealing in your country have enough volume of goods in order to effectively compete with road hauliers?

Meine Antwort

---

7. How do you foresee the development of intermodal connections in your country in the coming 10 years?

Meine Antwort

---

8. How do you see the future of intermodal connections linking the markets of Western Europe with the Baltic countries?

Meine Antwort

---

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## Rail carrier

### BARRIERS TO INTERMODALITY

#### 1. What according to you are the biggest barriers to the development of intermodal transport in your country? \*

please range the importance in the scale from 1 (low importance) to 6 (highest importance)

|  | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Too expensive comparing to road transport  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Long transit time  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Frequent deviation from schedule   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low security of cargo  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate information about intermodal transport connections                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Track & trace service not available  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate intermodal terminals network  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of logistics centres rendering additional services nearby container terminals | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No open inland terminals accessible for all carriers                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| High access fees to railway infrastructure   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shortage of specialised intermodal rolling stock                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Shortage of multi-system locomotives   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of qualified locomotive drivers   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Change of locomotives at borders   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Different track gauge in international railroad connections                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor information exchange between logistics partners in intermodal supply chain    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other , please specify:

Meine Antwort

---

## ICT TOOLS SUPPORTING LOGISTICS SERVICES

2. Does your company use ICT tools to assist decision-makers in the following fields related to transport?

- YES  
 NO

Collecting orders from the market \*

- YES  
 NO

Presenting own services \*

- YES  
 NO

Transfer of electronic railway bill \*

- YES  
 NO

Track & trace of wagons \*

- YES  
 NO

Track & trace of shipments \*

- YES  
 NO

3. Please evaluate the quality of existing system for exchanging electronic messages and documents between your company and the following categories of logistics service providers? \*

|                           | Not existing          | Not satisfactory      | Satisfactory          |
|---------------------------|-----------------------|-----------------------|-----------------------|
| Freight forwarder         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Intermodal Train operator | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Container terminal        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## SCENARIOS OF THE INTERMODAL TRANSPORT DEVELOPMENT

4. What according to you will be the main trends in intermodal transport in Europe?

Meine Antwort

---

5. Do you think that intermodal transport operators dealing in your country have enough volume of goods in order to effectively compete with road hauliers?

Meine Antwort

---

6. How do you foresee the development of intermodal connections in your country in the coming 10 years?

Meine Antwort

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7. How do you see the future of intermodal connections linking the markets of Western Europe with the Baltic countries?

Meine Antwort

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## Container terminal

### BARRIERS TO INTERMODALITY

#### 1. What according to you are the biggest barriers to the development of intermodal transport in your country? \*

please range the importance in the scale from 1 (low importance) to 6 (highest importance)

|  | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Too expensive comparing to road transport  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Long transit time  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Frequent deviation from schedule   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low security of cargo  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate information about intermodal transport connections                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Track & trace service not available  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate intermodal terminals network  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of logistics centres rendering additional services nearby container terminals | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No open inland terminals accessible for all carriers                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| High access fees to railway infrastructure   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor information exchange between logistics partners in intermodal supply chain    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other , please specify:

Meine Antwort

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## ICT TOOLS SUPPORTING LOGISTICS SERVICES

2. Does your company use ICT tools to assist decision-makers in the following fields related to transport ? \*

- YES  
 NO

Collecting orders from the market \*

- YES  
 NO

Presenting own services \*

- YES  
 NO

Cooperation with other logistics services providers at ports \*

|   | YES                   | NO                    |
|---|-----------------------|-----------------------|
| Cargo pre-notification system                                   | <input type="radio"/> | <input type="radio"/> |
| Container identification and location                           | <input type="radio"/> | <input type="radio"/> |
| Container positioning at terminal                               | <input type="radio"/> | <input type="radio"/> |
| Logistics info exchange (i.e electronic messages and documents) | <input type="radio"/> | <input type="radio"/> |
| Containers placement in a ship                                  | <input type="radio"/> | <input type="radio"/> |

Other tools, please specify:

Meine Antwort

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3. Please evaluate the quality of existing system for exchanging electronic messages and documents between your company and the following categories of logistics service providers? \*

|                           | Not existing          | Not satisfactory      | Satisfactory          |
|---------------------------|-----------------------|-----------------------|-----------------------|
| Freight forwarder         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Intermodal train operator | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Rail carrier              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Road carrier              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## SCENARIOS OF THE INTERMODAL TRANSPORT DEVELOPMENT

4. What according to you will be the main trends in intermodal transport in Europe? \*

Meine Antwort

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5. Do you think that intermodal transport operators dealing in your country have enough volume of goods in order to effectively compete with road hauliers? \*

Meine Antwort

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6. How do you foresee the development of intermodal connections in your country in the coming 10 years? \*

Meine Antwort

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7. How do you see the future of intermodal connections linking the markets of Western Europe with the Baltic countries? \*

Meine Antwort

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## Road carrier

### BARRIERS TO INTERMODALITY

1. What according to you are the biggest barriers to the development of intermodal transport in your country? \*

please range the importance in the scale from 1 (low importance) to 6 (highest importance)

|   | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Too expensive comparing to road transport                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Long transit time   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Frequent deviation from schedule  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low security of cargo   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inadequate information about intermodal transport connections                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Track & trace service not available   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor information exchange between logistics partners in intermodal supply chain | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other , please specify:

Meine Antwort

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## ICT TOOLS SUPPORTING LOGISTICS SERVICES

2. Does your company use ICT tools to assist decision-makers in the following fields related to transport?

- YES  
 NO

### Collecting orders from the market \*

|                  | NO                    | YES                   | If YES, does it apply also to transport of containers |
|------------------|-----------------------|-----------------------|---|
| freight exchange | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| own web page     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

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### Presenting own services \*

|                                       | NO                    | YES                   | If YES, does it apply also to transport of containers |
|---------------------------------------|-----------------------|-----------------------|---|
| data bases of delivery planning tools | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| freight exchange                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

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### Consolidation of shipments \*

|                           | NO                    | YES                   | If YES, does it apply also to transport of containers |
|---------------------------|-----------------------|-----------------------|---|
| freight capacity exchange | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

Other tools, please specify:

Meine Antwort

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**Improvement of services \***

|                           | NO                    | YES                   | If YES, does it apply also to transport of containers |
|---------------------------|-----------------------|-----------------------|---|
| Route optimising          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| Route guidance            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| Vehicle assigning         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| Fleet management          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| Parking place booking     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| Delivery space booking    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |
| Track & trace of vehicles | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>                                 |

**Other tools, please specify:**

Meine Antwort

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**Cooperation with other logistics services providers at ports \***

|                       | NO                    | YES                   |
|-----------------------|-----------------------|-----------------------|
| Port Community System | <input type="radio"/> | <input type="radio"/> |

**Other tools, please specify:**

Meine Antwort

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**3. Please evaluate the quality of existing system for exchanging electronic messages and documents between your company and the following categories of logistics service providers?**

|                           | Not existing          | Not satisfactory      | Satisfactory          |
|---------------------------|-----------------------|-----------------------|-----------------------|
| Freight forwarder         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Intermodal train operator | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Container terminal        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## SCENARIOS OF THE INTERMODAL TRANSPORT DEVELOPMENT

4. What according to you will be the main trends in intermodal transport in Europe?

Meine Antwort

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5. Do you think that intermodal transport operators dealing in your country have enough volume of goods in order to effectively compete with road hauliers?

Meine Antwort

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6. How do you foresee the development of intermodal connections in your country in the coming 10 years?

Meine Antwort

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7. How do you see the future of intermodal connections linking the markets of Western Europe with the Baltic countries?

Meine Antwort

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