

TERMS OF REFERENCE

TRANSPORT MARKET STUDY

Rail Freight Corridor North Sea – Baltic (RFC NS-B)

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Glossary of Abbreviations

AB	Allocation Body
CBA	Cost-Benefit Analysis
CEF	Connecting Europe Facility
EU	European Union
GDP	Gross Domestic Product
IM	Infrastructure Manager
MB	Management Board of RFC NS-B
NUTS	Nomenclature of territorial units for statistics
O/D	Origin/Destination
PEST	Political, Economic, Social and Technological analysis
RFC	Rail Freight Corridor
RFC NS-B	Rail Freight Corridor North Sea – Baltic
TEU	Twenty-foot Equivalent Unit
ToR	Terms of Reference
TMS	Transport Market Study
WG TMS	Working Group Transport Market Study of RFC NS-B

1. General overview

1.1. Introduction and background

To enhance a European network for competitive rail freight, the Regulation (EU) 913/2010 stipulates the implementation of initial rail freight corridors and a package of measures to improve the competitive situation of rail freight transport on these corridors. As a consequence, Rail Freight Corridor North Sea-Baltic (RFC NS-B) was established in November 2015. A mandatory part of the implementation plan for the rail freight corridor was to publish the essential elements of the Transport Market Study (TMS) that was finalized in March 2014. This study was conducted according to Article 9.3 of the Regulation (EU) 913/2010:

*“The management board shall carry out and periodically update a transport market study relating to the **observed and expected changes in the traffic on the freight corridor**, as a consequence of its being established, **covering the different types of traffic**, both regarding the transport of freight and the transport of passengers. This study has to also review, where necessary, the socio-economic costs and benefits stemming from the establishment of the freight corridor.”*

According to Article 9.3 of the Regulation (EU) 913/2010, rail freight corridors are obliged to “periodically update” the existing transport market studies.

The following TMS consists of the update (Origin/Destination (O/D) analysis) for the existing corridor lines as established in November 2015 and the analysis of the proposed extensions including their future developments. According to the Annex II of the Regulation (EU) 1316/2013 (CEF Regulation) that amended the Annex with the initial rail freight corridors, the RFC NS-B has to be extended Latvia and Estonia (LV and EE) by 2020. **The inclusions of LV and EE in the Corridor shall be based on market studies and take into consideration the aspect of existing passenger and freight transport.** Also according to Annex II of the CEF Regulation until the realisation of a Rail Baltic line in 1435 mm nominal track gauge, the specificities of different track gauge systems shall be taken into account in the establishment and operation of the North Sea – Baltic corridor in line with Article 14(3) of Regulation 913/2010.

The Management Board (MB) of RFC NS-B also decided to analyse an extension to Medyka (Poland/Ukraine border) and to Rostock/Kolin in view of a possible application for extension, and to combine the new studies with the (partial) update of the original TMS.

1.2. Aims and expected results of the TMS

The following specific aims and expected results can be defined to fulfil the requirements from the Regulation 913/2010:

- Short socio-economic analysis for the proposed, above-mentioned extensions and reaffirmation of the existing PEST analysis;
- Analysis of the current situation of rail freight traffic/volumes and passenger traffic on the RFC NS-B routes, including proposed, above-mentioned extensions;
- Prognosis for rail freight traffic/volumes on the RFC NS-B routes, including proposed, above-mentioned extensions.

1.3. Approach, data basis and scope of the TMS

1.3.1. Approach

These Terms of Reference (ToR) are written in the expectation that the Contractor conducting the TMS is an expert for such analysis of the transport market. As a consequence, the Contractor is bound to the aims expressed in chapter 1.2, whereas *how* he attains these aims is left to his discretion to a certain extent.

1.3.2. Data basis and methodology

The Contractor has to use existing public reports/studies/statistics (etc.) (the WG TMS will provide the full version of the previous TMS), own made analyses as well as traffic data of the concerned IMs/ABs. The table below describes which data will be provided by the IMs/ABs (in .xls) and which data the Contractor has to retrieve externally.

IMs/ABs	Consultant
Data based on reference year 2016/17	Short and mid-term analysis (2016/17 – 2021/2022, optional 2026) & separate Chapter for Rail Baltica Global Project after 2026
Rail: Number of freight trains	Traffic volumes of other modes: Eurostat, national data sources (e.g. Destatis) etc.
Corridor train crossing one corridor border: <ul style="list-style-type: none"> ▪ Two options: <ol style="list-style-type: none"> 1) at least all trains on borders and if available 2) trains O and/or D on the corridor ▪ Challenge: changes of train numbers at the borders → experts are needed for accurate evaluation ▪ Number of trains excluding working trains, maintenance trains, loco, etc. ▪ Number of trains (no differentiation between ad-hoc and timetable) 	Commodity: Eurostat (net ¹ tons and net ¹ tons-km)
Train characteristics (length & weight in gross ² tons)	Main Infrastructure Development Projects on the corridor
Train type (single wagon, block train, combined transport)	• Short socio-economic analysis for extensions & PEST reaffirmation of previous analysis
List of terminals on the existing lines	Terminals belonging to the corridor (for the extensions)

¹ net tons mean here: weight of the load including packaging and the weight of the container/trailer/swap body, but without the weight of the wagons/locomotives (note: in Eurostat net tons mean gross tons)

² gross tons mean here: net tons plus the weight of the wagons/locomotives (note: in Eurostat gross tons mean gross-gross tons)

Passenger traffic → rough picture of number of trains (only reference year)	Study Rail Baltica Global Project is available online ³
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The methodology used to fulfil the tasks asked for in this ToR (calculation method, use of data / resources etc.) has to be described by the Contractor in the bid submitted.

The bid should at least consist of explanations how to get to the following points:

- Definition of the catchment area (based on NUTS 2) and proposed terminals for the extension
- Evaluation of the overall freight transport market for the reference year 2016/17⁴
- Analysis of traffic flows and transport volumes for all freight transport modes by O/D relations of the current market (2016/17)
- Evaluation of the current (2016/17) rail passenger traffic
- Evaluation of the socio-economic development (PEST analysis for the extensions + reconfirmation of previous results) until 2021/22, optionally until 2026
- Summary of the results of the “Rail Baltica Global Project” study (CBA study) for the period after 2026 reflected as a separate chapter within the TMS.

1.3.3. Geographical scope

The geographical scope of the Corridor is roughly described in the annex of Regulation 913/2010 as amended, as well as in the Commission Implementing Decision 2017/178 amending Decision 2015/1111. Further, the following voluntary extensions have to be added: from Katowice to Medyka in Poland, from Dresden via Berlin to Rostock in Germany and to Kolin in the Czech Republic. For the current member states of the RFC NS-B the existing geographical scope of the previous TMS, which are part of the existing corridor (lines as established in November 2015) has to be used.

³ <http://www.railbaltica.org/cost-benefit-analysis/>

⁴ Use of data of 2017 (for the whole analysis) is preferred. If data is not available, data of 2016 should be used.



On this basis, the main economic regions providing train runs along the corridor have to be covered in the TMS. For the different modes in the member states (including extensions referred to above) and in non-member states this leads to the following non exhaustive outline:

- Rail – a first basic routing will be defined in cooperation with the concerned railway IMs/ABs for the extensions;
- Road – motorways/highways in the range of the corridor;
- Waterways – inland waterways and short sea shipping in the range of the corridor;
- All relevant terminals (combined traffic and bulk), yards and ports should be included for the extensions.

1.3.4. Period under consideration

The analysis has to be done for the current situation (reference year 2016/17)⁵ and the short-term period (5 years' perspective (2016/17 – 2021/22); optionally until 2026). Additionally, it is asked to integrate as a separate chapter in the TMS the results of the "Rail Baltica Global Project" study (CBA study) for the period after 2026.

⁵ Use of data of 2017 (for the whole analysis) is preferred. If data is not available, data of 2016 should be used.

1.4. Milestones and deliverables

The TMS has to be finished within 44 weeks after the commencement date. Within this period the following milestones/deliverables have to be respected:

- A kick-off meeting should take place between the WG TMS and the Contractor within 4 weeks after the commencement date together with a side meeting with other stakeholders (railway undertakings, terminals). Aim should be to clarify details of cooperation (data delivery by IMs/ABs), solving crucial questions, showing a first draft of the catchment area (cf. below chapter 2.1), etc.
- IMs/ABs will deliver the requested information to the Contractor within 8 weeks after the commencement date (4 weeks after the Kick-Off meeting).
- A progress meeting with the WG TMS has to take place 14 weeks after the commencement date (for presenting the progress and solving any issues as early as possible).
- Interim results have to be presented 24 weeks after the commencement date together with an interim presentation for the MB after consultation with the WG TMS.
- Another optional progress meeting could take place 34 weeks after the commencement date.
- The draft final report has to be provided 40 weeks after the commencement date and the final report at the latest 44 weeks after the commencement date together with a presentation for the MB after consultation with the WG TMS .
- All deliverables for the above mentioned milestones have to be provided 2 weeks before the respective dates in order to get approval at MB presentation dates (when it's possible in the meetings already) when needed.

The interim results have to be presented and delivered as MS Power Point slides in a live meeting. The final results and report must contain an executive summary and has to be delivered electronically as a MS Word document. The final report has to be delivered in 12 hard copies. The final presentation has to be presented as MS PowerPoint slides in a live meeting.

All documents, charts, data spreadsheets etc. used in connection with carrying out the TMS, e. g. statistical information, etc. have to be delivered separately and are not part of the actual TMS. The format has to be electronically and files in editable formats (.doc, .xls, .ppt etc.) where available has also to be provided. The forecast model has to be submitted together with the final report as MS Excel file.

Meeting locations will be in central Europe (in one of the countries of the corridor).

The Contractor has to provide preconditions and project schedule to fulfil the milestones for the execution of the TMS in the bid which can be adapted after the Kick-off meeting.

The WG TMS will accompany the process and will provide support on IM/AB specific matters (see table for data provision in 1.3.2.). The central contact person is the co-leader of the WG TMS for content-related issues and the representative of the Contracting party (EEIG manager) for financial and organizational issues.

1.5. Language and Miscellaneous

The bid and the TMS have to be written in English.

The Contractor has to advise the Contracting party about conflicting or insufficient information, requirements or risks, which he identifies while preparing his offer or carrying out the TMS.

2. EXPECTED CONTENT OF THE TMS

2.1. Definition of the corridor catchment area and results on possible terminals belonging to the corridor

For the extensions, the TMS has to define the catchment area of the corridor based on the geographical scope.

This is not to be confused with the actual (railway) routing of the corridor, which is already given and will be provided by the IMs/ABs concerned.

On the basis of information on the most relevant O/D (see below chapter 2.3.1 and 2.4.1) the most relevant rail terminals have to be identified for the extensions. The IMs/ABs will support the Contractor where necessary.

2.2. General socio-economic development on the corridor

The evaluation of the socio-economic development has to take into account the trends of the next five years (2016/17 – 2021/2022, optionally until 2026) for the extensions and prepare a reaffirmation of the PEST analysis in the former TMS. The effects of the socio-economic development have to be analysed for each transport mode. Differences among the various regions within the corridor and between the distinct types of traffic have to be taken into account.

The analysis of the socio-economic development mainly consists of a PEST analysis. Such an analysis investigates the impact of the following non-exhaustive factors on the freight traffic in the corridor:

- Political, legal, and environmental factors such as regulations, taxes, weather, primary energy, etc.;
- Economic factors, such as GDP development, situation of the relevant industries, economic development of certain regions, developments in world shipping and ports with relevance to the corridor, etc.;
- Social factors, such as consumers' attitudes (e.g. noise arising from freight traffic); demographic development, etc.;
- Technological factors, such as more efficient signalling technology, environmentally friendly trucks, etc.

2.3. Analysis of the current transport market on the corridor

2.3.1. Transport volumes per O/D trade lane and mode

The Contractor has to deliver an analysis of the current volumes of international freight traffic on the corridor. The base year for the current market analysis is 2017 where data not available 2016 could be used, where necessary and appropriate also longer time series can be used. In case of rail a corridor

train has to cross at least one corridor border. This means at least all trains on borders will be counted and if available all trains which have their O and/or D on the corridor.

For other modes “on the corridor” means all O/Ds beginning and ending in the defined area of the corridor according to chapter 2.1. As far as short sea shipping is competing with rail on the respective O/Ds it is considered as being on the corridor, too.

This analysis has to encompass each relevant mode (rail, road, waterways, etc.) measured in net tons, in net ton – km, and in TEU.). For rail, indications in number of trains should also be given.

The compilation of these data has to be done

- By the most relevant O/D trade lanes, paying attention to the role of freight terminals and logistics centres;
- By showing interconnections to other rail freight corridors;
- By showing the modal split per relevant O/D trade lane in per cent, esp. market share of rail freight.

The passenger traffic on the corridor has to be analysed just for the current reference year 2016/17.

2.3.2. Transport volumes per market segment and mode

The Contractor has to deliver an analysis of the following “market segments” from a rail point of view (but covering all relevant modes):

- The proportion of distinct types of international freight traffic for all relevant modes (wagon load, intermodal, bulk, containerized, other). Especially the impact of intermodal traffic (also differentiation between maritime and continental) is of importance here;
- In addition, for all relevant modes the type of transported commodities has to be analysed and clustered per industrial sector (automotive, coal, metals, steel, ore, etc.).

The connection between type of traffic and type of commodity has to be shown. If it becomes obvious without deeper analysis that (rail) bottlenecks already exist, such bottlenecks have to be briefly assessed including the impact on the modal split.

2.4. Evaluation of the future transport market development on the corridor

The evaluation of the future transport market development on the corridor has to basically contain the same elements as chapter 2.3.

2.4.1. Transport volumes per O/D trade lanes and mode and transport volumes per market segment and mode (short term)

The Contractor has to analyse the prognosis for the short term (next five years (2016/17 – 2021/2022, optionally until 2026)) - incl. quantitative and qualitative indications, in particular expected structural changes to the traffic flow and in the transport production on the corridor. From a rail freight point of view such trends have to highlight possible opportunities for future volumes and threats to existing volumes per O/D and segment. The “most probable” scenario has to be shown.

The Contractor has not only to show the results, but has to highlight also the most important factors and assumptions for the results. Such factors and assumptions may among others be:

- Socio-economic factors as found in the chapter 2.2;
- Possible rail freight enhancement within the next five years, optionally ten years, with a special emphasis on impact of the implementation of the TEN-T parameters according to art. 39 of the Regulation 1315/2013;
- Possible other improvements in the transport system (all modes) in the next five years (e.g. new infrastructure, new/enhanced terminals).

2.4.2. Summary of Rail Baltica Global Project (long-term)

The Contractor has to summarize the results of the “Rail Baltica Global Project” study (CBA study) for the period after 2026 in a separate chapter with a focus only on the new to be constructed 1435 mm line in Estonia, Latvia and Lithuania, providing a general picture of expected traffic after the project completion and its implications for the RFC NS-B. The study is available online and can be used by the Contractor free of charge.

The summary has to focus on the following aspects among others:

- Freight flow projections
- O/D analysis of NUTS area
- Socio-economic analysis
- Modal shift analysis.

General note: For the extensions to Estonia and Latvia and in Lithuania, findings from market studies regarding the new upcoming Rail Baltica Global Project (1435 mm) route cannot be directly applied to the existing (1520 mm) route. Considerable obstacles that exist at certain crossings from European 1435 mm network to European 1520 mm network (not only those related to the track gauge standard but also different maximum axle load, maximum train length, maximum speed, uneven track capacity, different rolling stock static and dynamic gauge, traction systems, signalling systems, organisation of freight transportation process etc.) have to be taken into account.

2.5. Conclusions & Executive Summary

The conclusions have to contain the results with regard to the aims/expected results described in the chapter 1.2. and the recommendations for the extended corridor (routing, terminals, etc.). Besides the conclusions the Contractor has to provide an Executive Summary of the whole study in order to be integrated into the Implementation Plan.