Baltic – Adriatic Rail Freight Corridor 5

Implementation Plan 2023

Version 2.9

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Change history

VERSION	AUTHOR	DATE	CHANGES
0.1	PMO	11.04.2023	First content scheme
1.0	PMO; IOP/INF,	07.07.2023	First version of I&I-related chapters
2.0	PMO;	03.08.2023	Second version. Chapters 3 and 5
2.1	PMO	10.08.2023	Review of Chapter 6.1
2.2	PMO	14.08.2023	Review of Chapter 2.3.2
2.3	PMO	30.08.2023	Review of Chapter 4.8 and 6.4
2.4	PMO	01.09.2023	Review of Chapter 2.3
2.5	PMO	11.09.2023	Review if chapter 2.3.1
2.6	PMO/GA	26.09.2023	Review of Chapter 2.3.1
2.7	ExBo	04.10.2023	Review of Chapters 2.2, 2.3, 5, 6.1
2.8	RAG/TAG	23.10.2023	Added Remarks Chapter 7
2.9	SZ-I	27.10.2023	Added Remarks Chapter 7

Content

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1 Introduction

The Rail Freight Corridor Baltic-Adriatic (onwards "Baltic-Adriatic RFC") was established in 2015 as implementation of the Regulation (EU) No 913/2010 on a competitive network for rail freight (onwards "EU Freight Regulation"). The aim of the EU Freight Regulation is to enhance the competiveness of the rail freight transport in order to improve the market share of rail over road.

The EU Freight Regulation lays down rules for the establishment and organization of international rail corridors for competitive rail freight, the so-called "Rail Freight Corridors" (RFCs). These rules encompass the selection, organization, management and the indicative investment planning of freight corridors. The Annex to the EU Freight Regulation provided for the implementation of nine initial Rail Freight Corridors, to be established in two waves: in 2013 and in 2015, the Baltic-Adriatic RFC belonging to this second wave.

Baltic Adriatic RFC runs through six States of European Union, namely Poland, Czech Republic, Slovakia, Austria, Slovenia and Italy and its members are the respective railway infrastructure managers.

In the spirit of the EU Freight Regulation, the RFCs would represent a cooperation platform for Governments, Infrastructure Managers, Railway Undertakings and Terminals, aimed at the harmonization of all the phases of the transport chain.

As all RFCs, Baltic-Adriatic RFC has three main areas of competence:

- Market definition and analysis, in particular the carrying out of studies aimed at a better knowledge of the market and the definition of the most suitable products to be offered.
- Capacity Management, construction of international rail freight capacity. In addition, the Baltic-Adriatic RFC contributes to the coordination of temporary capacity restrictions due to infrastructure works.
- Traffic and Performance Management, Baltic-Adriatic RFC monitors the punctuality of the freight trains crossing the corridor, with the aim of improving it and to identify operational bottlenecks to be solved, in order to allow a smoother operation of trains across borders.

On the occasion of the establishment of the Baltic-Adriatic RFC, an Implementation Plan was drawn up, whose purpose was to:

- Give a detailed description of the corridor, in terms of infrastructure and market characteristics
- Illustrate the measures that were already taken or were going to be taken, to set up the corridor structures and start the activities envisaged in the EU Freight Regulation (Sections 5 and 6)

Since then, the Baltic-Adriatic RFC has started and consolidated its structure and operational tasks.

In 2021, Baltic-Adriatic RFC issued a new version of the Implementation plan.

The main features of the 2021 editions were:

- Updated corridor description and information on bottlenecks (Chapter 2)
- Main outcomes of the updated Transport Market Study (Chapter 3)
- Updated data on infrastructure and ERTMS investment (Chapter 6)

Based on the new common structure for the RFC Corridor Information Document (CID), the information regarding the operational measures to set up the RFC is featured in the other CID Sections and it is updated every year. In order to give a comprehensive information, links to these CID Sections are provided in this document (Sections 4 and 5).

The downloadable version of the document is available here: Customer Information Platform

In 2023, based on the deliverables foreseen by the CEF TA grant agreement signed by the RFC with CINEA, the RFC has decided to issue another update of the Implementation Plan. The main novelties featured in the new version are:

1. Chapter 5: a list of corridor objectives complemented by (i) indicators operationalising the objectives based on an objectively defined methodology and (ii) target values for the indicators and verbal description of the target situation for objectives that cannot be quantified. In parallel, a monitoring system has been set up and implemented to assess the current situation and monitor progress with respect to the objectives and targets.
2. Chapter 2.3: update of the information regarding the bottlenecks along the corridor, including in particular infrastructure declared congested in accordance with Art 47 of Directive 2012/34/EU, and their impact on cross-border freight traffic along the corridor
3. Chapter 3: update of the information about the Capacity Study and the next TMS update

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2 Corridor Description

The Baltic–Adriatic RFC, represents a north – south axis and connects ports in Poland, Slovenia and Italy with main land terminals of all the countries along the corridor.

The routing of the Baltic–Adriatic RFC is the following: Świnoujście / Gdynia – Katowice – Ostrava / Žilina – Bratislava / Vienna / Klagenfurt – Udine – Venice / Trieste / Bologna / Ravenna / Graz – Maribor – Ljubljana – Koper / Trieste.

The Baltic–Adriatic RFC as infrastructure backbone creates connections and supports growing economies along the Corridor's regions. The Baltic–Adriatic RFC and its hinterland connections potentially allows flows of larger volumes of goods between industrial centres along the Corridor and from/to Adriatic and Baltic ports.

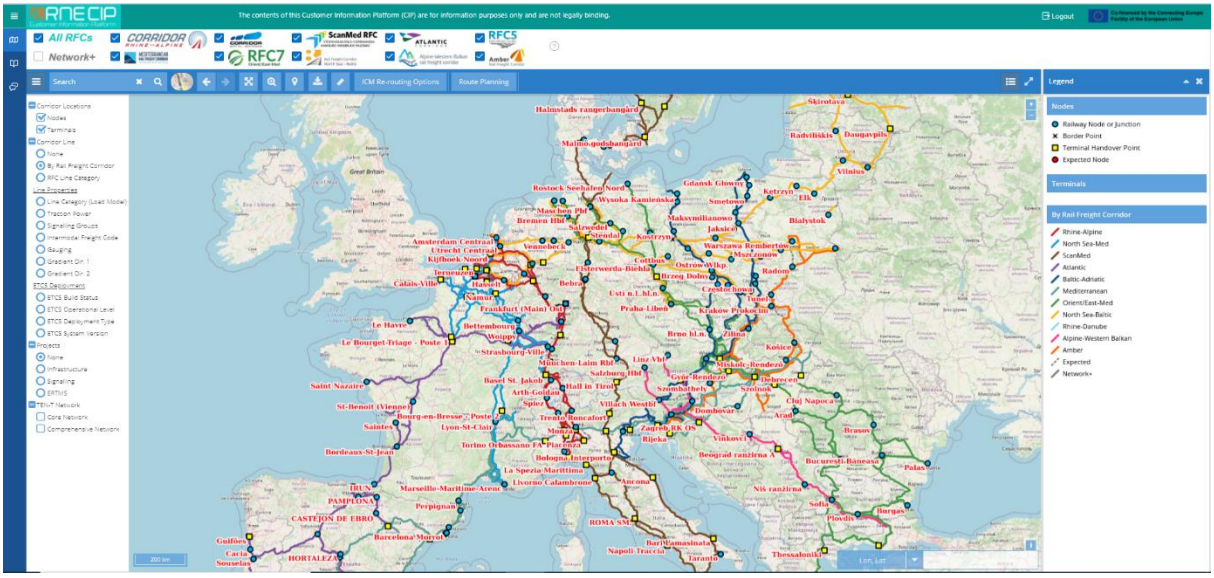
Picture 1 – schematic map of Baltic-Adriatic RFC

2.1 Key Parameters of Corridor Lines

The detailed routing of Baltic–Adriatic RFC can be explored on our interactive platform, the Customer Information Platform (CIP), where the key parameters *per* section are also displayed. Among other information, you can find information on:

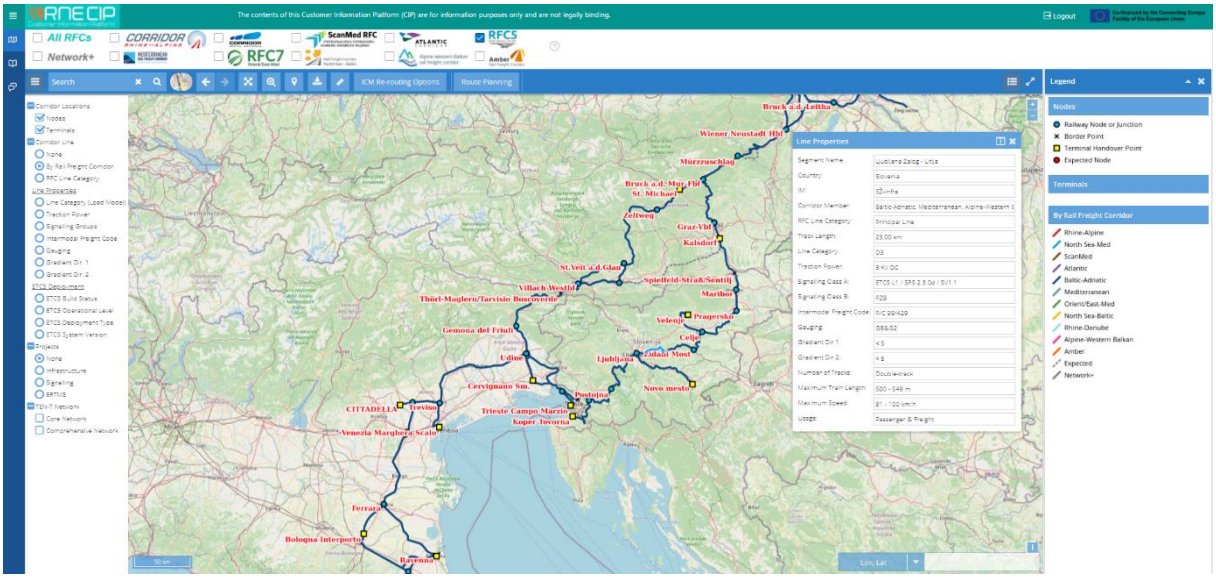
- category of the line - principal, diversionary and connecting,
- chosen section length,
- power supply, type of current and voltage for electrified lines (DC 1.500V, DC 3.000V, AC 15.000V & 25.000V),
- signalling and interlocking systems - type of signalling systems implemented on each line,
- loading gauge - maximum dimension for the freight vehicles, especially in the tunnels.

For accessing the interactive platform, the Customer Information Platform (CIP), just click this link: Customer Information Platform. After accessing the platform, routings of all corridors are displayed, as you can see on the picture 2.



Picture 2 – Corridors routings in Customer Information Platform

After selecting the RFC 5 in the row above the map and clicking “Set”, the routing of just RFC 5 is displayed. After clicking on the chosen segment, the key parameters will appear, as you can see on the picture 3.



Picture 3 – Key parameters of corridor line

Beside the possibility to display the key parameters of the chosen segment, the view on the map can be changed according to what Line property (key parameter) you want to see. As you can see on the picture 4, on the left-hand side (blue frame), you can choose the Line property of your interest. On the right-hand side, there is a legend to the displayed information.

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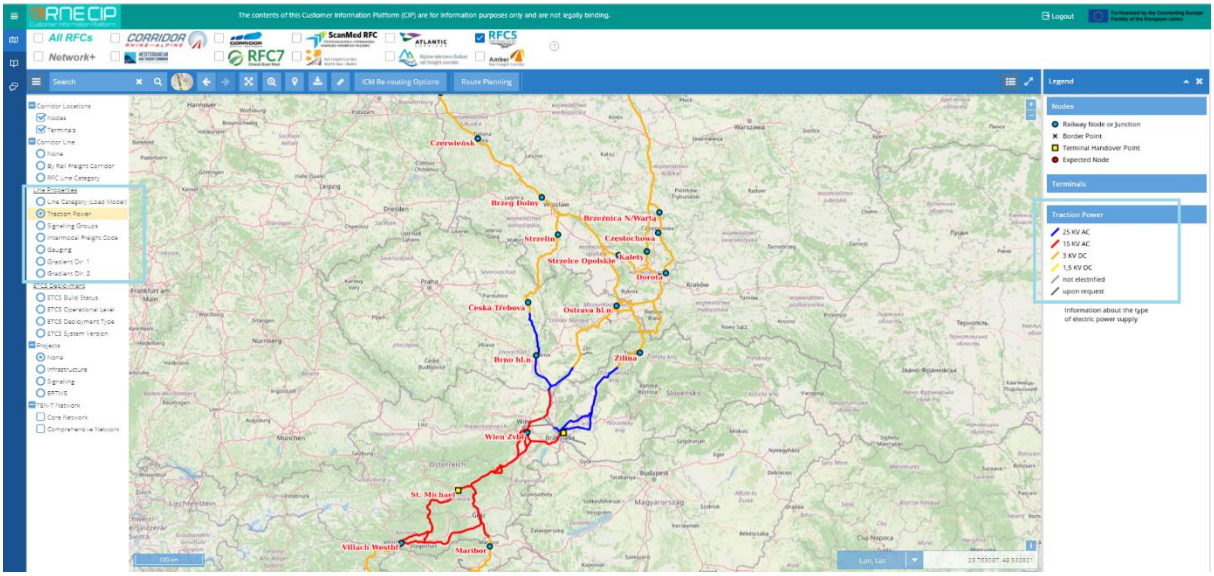

Picture 4 – Displaying of chosen line property (key parameter) for corridor lines

2.2 Corridor Terminals

According to Article 2.2.c of Regulation 913/2010/EC, terminals are defined as those facilities provided along the freight corridor which have been specially arranged to allow either the loading and/or the unloading of goods onto/from freight trains and the integration of rail services with road, maritime, river and air services, and either the forming or modification of the composition of freight trains and where necessary, performing border procedures at borders with European third countries.

The actual terminals on RFC Baltic-Adriatic lines can be found in the CID Section 3.2.

The list of operational terminals on corridor lines is changing rather often. The most up-to-date information regarding terminals can be found in the map view on the RFC Baltic-Adriatic rail freight corridor lines in the interactive platform, the Customer Information Platform (CIP), under the link: Customer Information Platform.

2.3 Bottlenecks

For the purposes of this documents infrastructure "bottlenecks" are understood here as "*places of not sufficient capacity resulted from temporary bigger traffic needs (TCR not considered) than current infrastructure capacity*" and in particular for infrastructure bottlenecks: "*Bottlenecks resulting from actual status of the Infrastructure*[1]". This definition includes as well the infrastructure declared congested in accordance with Art 47 of Directive 2012/34/EU.

Bottlenecks are operational when relate to the following:

[1] See original Implementation Plan

- Communication between IMs at the traffic control centers (e.g. English speakers available 24/7)
- Operational rules between RUs and IMs at the borders (e.g. tail lights)
- Flow of communication among RUs and between RUs and IMs at the borders

An overview, drafted on the basis of the contribution of individual Infrastructure Managers, of infrastructural bottlenecks (table 1) and operational bottlenecks (table 2) is presented below.

Regarding table 1, according to Reg. 913/2010 art 9(1)(a), it has been reported a list of bottlenecks along the corridor, as explicit and complete as possible, including in particular infrastructure declared congested in accordance with Art 47 of Directive 2012/34/EU, and their impact on cross-border freight traffic along the corridor.

As far as the measures to eliminate or mitigate the effects of the bottlenecks are concerned:

- For the infrastructure bottlenecks, are represented by the investment that can be found in section 6 of this document
- For the operational bottlenecks, are indicated in table 2 below

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2.3.1 Infrastructure bottlenecks

Table of Infrastructure Bottlenecks					
Country*	Line/section or station/terminal/junction	Infrastructure side (description)	** Congested Infrastructure (Y/N)	*** Impact on Freight Cross Border traffic (N,L,M,H)	Border impacted Name
PL	Port Szczecin Port Gdańsk & Port Gdynia	Insufficient railway track condition on some sections, bad condition of engineering structures, bottlenecks limiting capacity	N	N	-
PL	Wrocław - Jelcz - Opole	Insufficient track condition on some sections, local speed restrictions caused mainly by bad state of engineering structures, capacity bottlenecks, signalling devices requiring reconstruction	N	L	Chałupki/Bohumín
PL	Opole - Kędzierzyn Koźle	Insufficient track condition on some sections, speed restrictions	N	L	Chałupki/Bohumín
PL	Katowice - Tychy - Czechowice Dziedzice - Zebrzydowice	Insufficient track condition on some sections, local speed restrictions caused mainly by bad state of engineering structures, bottlenecks restricting capacity	N	M	Zebrzydowice/Petrovice u Karviné
PL	Gdynia - Gdańsk - Tczew	Capacity is exhausted in the current railway operation - possible insufficient capacity	N	N	-

PL	Tczew - Katowice	Insufficient track condition on some sections, local speed restrictions caused mainly by bad state of engineering structures, bottlenecks restricting capacity	N	N	-
PL	Czechowice Dziedzice - Zwardoń border PL/SK	Border crossing Skalité -Zwardoň, Single track, max train length 330/360m	N	M	Zwardoń/Skalité
SK	Čadca -Skalité	Border crossing Skalité -Zwardoň, Single track, max train length 330/360m	N	M	Skalité/Zwardoń
SK	Junction Bratislava	Tunnels in section Bratislava Lamač – Bratislava hl.st. (often maitenance mostly only one track available, lack of capacity), low speed - Existing single track Bratislava hl. St. – Bratislava Nové Mesto – exhausted capacity proposal for doubling. Devínska Nová Ves - Devínska Nová Ves SR/AT border - only diesel	N	N	-
SK	Bratislava - Dunajská Streda	Lack of capacity due to: single line operation, no electrification	N	N	-
SK	Žilina zr.st - Žilina	Speed restriction - 40 km/h	N	N	-
SK	Devínska N.V. - Marchegg	Single line operation, no electrification	N	L	Devínska N.Ves/Marchegg
AT	Gloggnitz-Mürzzuschlag	Bottlenecks regarding infrastructure parameters: very low speed, very large gradients, limited gauge (because of tunnels)	N	M	Bernhardsthal/Breclav, Marchegg/Devínska N. Ves, Kittsee/Bratislava - Petrzalka, Thörl-Maglern/Tarvisio Boscoverde, Spielfeld-Straß/Šentilj

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AT	Wien Meidling - Wampersdorf	Possible insufficient capacity (because of sectionwise single-track line) in a midterm perspective	N	M	Bernhardsthal/Breclav, Marchegg/Devínska N. Ves, Thörl-Maglern/Tarvisio Boscoverde, Spielfeld-Straß/Šentilj
AT	Wien – Marchegg	Bottlenecks regarding infrastructure parameters: no electrification between Wien-Aspern an border AT/SK, Possible insufficient capacity (because of single-track line) in a midterm perspective	N	H	Marchegg/Devínska N. Ves
AT	Wien Meidling - Mödling	Insufficient capacity, capacity overload	Y	N	-
AT	Werndorf - Border AT/SI	Possible insufficient capacity (because of single-track line) in a mid- and longterm perspective	N	H	Spielfeld-Straß/Šentilj
	AUSTRIA - all bottlenecks will be solved in the future by projects, which could be found in the chapter 6.2 List of projects				
SI	section Ljubljana - Divača	Insufficient capacity, short station tracks,	N	H	Villa Opicina/Sežana
SI	section Divača - Koper	Short station tracks, single track line, lack of capacity	Y	M	Villa Opicina/Sežana, Šentilj/Spielfeld-Straß
SI	Station Ljubljana (node)	Insufficient capacity, short station tracks,	N	L	Villa Opicina/Sežana, Šentilj/Spielfeld-Straß
SI	section Ljubljana - Zidani Most	Insufficient capacity, short station tracks, lack of capacity	N	M	Villa Opicina/Sežana, Šentilj/Spielfeld-Straß
SI	Station Zidani Most (node)	Short station tracks, lack of capacity	N	L	Villa Opicina/Sežana, Šentilj/Spielfeld-Straß
SI	section Zidani Most - Pragersko	Insufficient capacity, short station tracks	N	L	Šentilj/Spielfeld-Straß
IT	Udine Node	Capacity limitation due to one track	Y	M	Tarvisio/Thörl-Maglern
IT	Padova – Trieste / Tarvisio Line	Stations conditions and line resulting in limitation of trains length	N	M	Tarvisio/Thörl-Maglern, Villa Opicina/Sežana

IT	Trieste Node	Station conditions resulting in limitation of trains length from/to Port of Trieste	N	M	Tarvisio/Thörl-Maglern, Villa Opicina/Sežana
IT	Venezia Node	Stations Conditions	N	N	-
IT	Castelfranco – Treviso - Udine	Capacity limitation due to signaling system	Y	H	Tarvisio/Thörl-Maglern
IT	Bologna - Padova		Y	L	Tarvisio/Thörl-Maglern, Villa Opicina/Sežana
IT	Bologna - Castelbolognese		Y	M	Tarvisio/Thörl-Maglern, Villa Opicina/Sežana
ITALY - All the Bottlenecks in the table have been considered on the base of the future development of freight traffics and Corridors. At the moment, in the short term, no bottleneck is critical.					

** CZ: SZCZ does not have any infrastructure bottlenecks*

****Congested infrastructure** in accordance with Art 47 of Directive 2012/34/EU	
Y	Yes
N	No

*****Level of Impact on Cross border Traffic if any**	
N	None
L	Low
M	Medium
H	High

Table 1 – Infrastructure bottlenecks on RFC Baltic-Adriatic

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2.3.2 Operational bottlenecks

Bottleneck	Where	Solution/Measures	Status	Who
Communication between TCCs in case of big disturbances	All RFC	Implementation of ICM Handbook	ICM handbook reviewed	IMs
		RNE language program	IM-IM VISE pilot with translation tool finished successfully. The IM-RU pilot „T4R II“ has finished successfully. Daily telcos btw SLO-AT NTCCs since Jan 8th 2020, weekly telco AT-HU since March 2022.	
		Use two languages predefined messages (TIS Incident Management Tool)	TIS incident management tool already installed and in use.	
		Recommendation: for the future it would benefit to have English staff 24/7 in the national traffic control centres	English speakers level A2 + by end of 2019 (for PLK, SŽCZ, ŽSR later)	
Locos change at the borders	All RFC	Multi-operating locos, faster loco change	In Tarvisio there is a project “XBorder” to allow Italian RUs to drive to Villach Sud. The wished effect is to have more infrastructure capacity.	RUs
Technical inspection of rolling stocks at borders	All RFC	Better trust/cooperation among RUs	It should be investigated within IssueLog 2. Between SLO and AT and IT most trains are on trust (no technical inspection at border)	RUs
Tail lights	Tarvisio, Villa Opicina	Test on lines Brennero-Verona-Vicenza-Treviso-Udine-Tarvisio started on 10th Dec 2017. Several other tests followed on most affected lines.	This bottlenecked has been successfully removed.	RUs, RFI
Communication between cooperating RUs	All RFC	To order international train paths instead of two national paths (e.g. via PCS). From IMs side the task to do is to implement interfaces with PCS	RNE collected PCS interfaces implementation plans: IMs ready by 2024. RFC5 monitors needs for double requests and foster interface development (e.g. PLK-RNE meeting)	RUs, IMs
Cross border system communication	All RFC	Usage of TAF-TSI messages for data communication in planning & operations (train composition) between RUs	Several RUs don’t use it. RAG recognizes it as bottleneck	RUs

Table 2 –Operational bottlenecks on RFC Baltic-Adriatic

2.4 RFC Governance

The Baltic-Adriatic RFC was established in 2015 and took the legal form of a European Economic Interest Grouping (EEIG) in 2016. Its seat was in Warsaw, Poland. The General Assembly of the EEIG took over the tasks of the Management Board of the RFC. In 2019, the seat of the EEIG moved to Venice, Italy.

A few changes in the composition of the governance and operational bodies of the RFC/EEIG have occurred along the years. Related information can be found in Section 1.4 of the CID, as well as on the RFC webpage and in the Annual Reports.

3 Market Analysis Study

The updated Transport Market Study of Baltic-Adriatic RFC was finalised at the end of October 2020.

The aims of the update of the Transport Market Study of the Baltic-Adriatic RFC, conducted by Tplan Consulting, were:

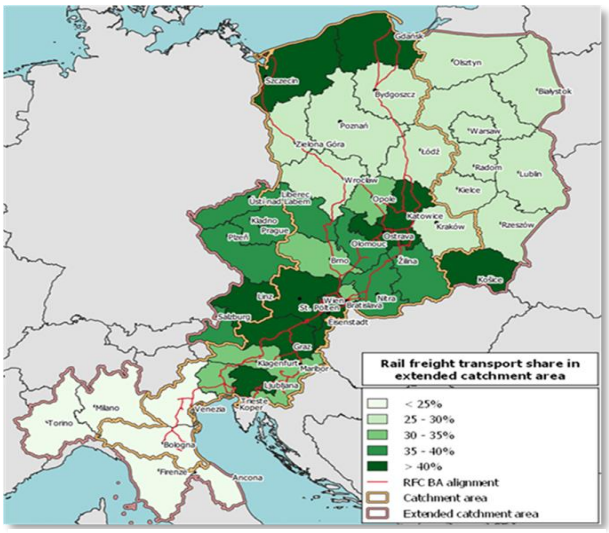
- Analyzing the current situation of freight traffic volumes along the RFC
- Providing an updated knowledge base and recommendations for the development of the rail freight market along the he RFC

An Executive Summary is available for downloading at this link and more details can be found there. Here, it can be mentioned that the study:

- Identified a catchment area and an extended catchment area
- Performed an in-depth PEST and Market analysis

It provided several recommendation and data that have been used, among others as input for further activities of the corridor.

In the half of 2021 the RFC finalized a Capacity Study, which was performed by the consortium Hacon&TPlan Consulting. The main objectives were developing and testing a completely new approach for the international coordination of the capacity planning in order to support all the stakeholders to



Picture 5- 2018 International rail freight transport share within the extended catchment area (loaded and unloaded tonnes (Source: Baltic-Adriatic Updated TMS 2020. Tplan own elaboration)

produce a capacity offer that could increase the attractiveness of rail freight transport.

An sub-output of the Capacity Study was the forecast of the rail market along the RFC, as the previous update of the TMS did not foresee the forecast module.

The forecast (for the time horizon 2022 and 2030) was made first in terms of IMs/IMs O/Ds yearly, both using an econometric model and a customers' survey. Then forecast volumes (tonnes) were then translated into additional daily train services for specific O/Ds and for the years 2022 and 2030.

In order to develop the optimal timetable planning, a customers' survey was carried out to find out what are the customer priorities in terms of "optimal train path".

The next step was to identify the IT Tool which could be used to perform the timetable project (for ad hoc, rolling and yearly planning) and could work at international level.

This was done by first identifying technical and functional requirements and then looking whether a tool already existed that can be used for our purposes. The provider identified the tool TPS.

At this point, all the information gathered (infrastructure and operational data, market forecast, customers' desiderata) was fed into the tool and simulations were run.

The simulations consisted, for example, in checking if the additional forecast capacity (i.e. the new daily train ODs services foreseen for the years 2022 and 2023) could be accommodated in a timetable with sufficient quality of service. The new infrastructures projects were also taken into account in the planned year of operation; for example the Semmering basis tunnel.

Several use cases of the tool were described, such as assessing the capacity of a line by adding of new trains without creating conflicts; or assessing the impact of a TCR at international level.

For more information about the studies published by Baltic-Adriatic RFC, please visit the relevant web page: Studies.

In 2023 the RFC planned the next update of the TMS, which is expected to be ready by the end of 2024. The RFC BA teamed-up with all the other RFCs within the RFC Network and decided to jointly procure the TMS update, in order to save costs and to have a common template and comparable outputs for the RFCs TMS. The RFC Network made the procurement process through RNE. The tender have been assigned to the consortium TPLan consulting & Panteia. The RFC Network appointed 4 RFCs experts (among whom the RFC BA Executive Manager) as representatives, both for the procurement process and for the monitoring of the execution of the project.

4 List of Measures

As mentioned above, the update of the Implementation Plan does not contain details on the list of measures taken by the Baltic-Adriatic RFC to ensure the execution of the planned activities.

Updated information on these activities, can be found in other published documents on the Baltic-Adriatic RFC web page. The links below can be found in the relevant Corridor Information Document paragraphs of the Baltic-Adriatic RFC.

4.1 Coordination of planned temporary capacity restrictions

Information on planned temporary capacity restrictions (TCRs) measures on Baltic-Adriatic RFC can be found in Section 4.4. of the CID.

4.2 Corridor OSS

Information on the Corridor OSS (C-OSS) of Baltic-Adriatic RFC can be found in Section 4.2 of the CID.

4.3 Capacity Allocation Principles

Information on the capacity Allocation principles on Baltic-Adriatic RFC can be found in Section 4.3 of the CID.

4.4 Applicants

Information on how Baltic-Adriatic RFC manages Applicants can be found in Section 4.3.2 of the CID

4.5 Traffic Management

Information on Traffic Management measures on Baltic-Adriatic RFC can be found in Section 4.5 of the CID

4.6 Traffic Management in Event of Disturbance

Information on Traffic Management measures in events of disturbance on Baltic-Adriatic RFC can be found in Section 4.5.3 of the CID

4.7 Quality Evaluation

4.7.1 Performance Monitoring Report

See Chapter 5

4.7.2 User Satisfaction Survey

See Chapter 5

4.8 Corridor Information Document

Baltic-Adriatic RFC publishes its Corridor Information Documents (CID) in the online platform called CIP, Customer Information Platform (cip.rne.eu).

At the same time, CID is also available in the "Network and Corridor Information Portal " – NCI. In this portal, created under the RNE umbrella, NSs and CIDs are made available in a digitalized and user-friendly way.

5 Objectives and performance of the corridor

In the spirit of the EU Freight Regulation, Baltic-Adriatic RFC's vision can be summarized as follows: the role of the RFCs is to make the rail mode more competitive in order to attract new freight traffic from the road mode.

The RFCs face several challenges which the end users see as the key issues influencing their modal choice, such as:

- fragmentation of the logistic chain
- problems in gathering information in one place, by all stakeholders
- poor reliability of the rail transport mode

In order to address these issues, Baltic-Adriatic RFC strives to position itself as a platform facilitating the international cooperation among all actors of the freight logistic chain.

Therefore, Baltic-Adriatic RFC focuses on the following tasks:

- Market intelligence: carrying out studies and listening the railways users' needs to allow better and deeper knowledge of the regional freight market along the Corridor and to raise the necessary awareness to the needs of rail freight
- Laboratory of soft measures: piloting new products and services to offer to its users and implementing operational measures to address the areas of improvement identified through the studies or the users' feedback
- Information hub: providing information gathered from different platforms and making it easily available in a harmonized way; improving the quality of the information available;
- Resilience facilitator: supporting with the coordination of the International Contingency cases
- Performance improvement facilitator: putting in place processes, projects, quality circles, tools aimed at performance measurement/monitoring in the different business areas and support all stakeholders in defining/implementing corrective actions to improve the performance of international rail freight traffic along the Corridor.

The RFC BA MB has drafted a strategy paper together with the ExBo.

In October the end of 2022 the RFC BA ExBo has drafted a list of corridor objectives complemented by indicators operationalising the objectives based on an objectively defined methodology and target values for the indicators.

At first the ExBo identified some key indicators of the performance of the RFC. For each indicator an objective methodology was defined to measure it.

Being RFC BA part of the RFC Network, there has been an effort to pick up harmonized indicators, such as the RFC Network KPIs which have been published yearly.

The indicators were measured based on the latest performance and the performance of previous years of operations, to identify trends.

Consequently, the target values for the key indicators were set.

Such targets, which were shared with the MB, are short term. The reasons are:

-the limited time horizon of the Corridor CEF TA financing (till the end of 2024) which foresees an assessment of the targets during the span of the financing;

-the coming soon revision of the Regulation 913/2010.

As all good targets, they have been assigned in compliance with the criteria that they should be reachable with the available resources provided by the actual Regulation and within the short-time frame of the CEF TA financing.

Therefore, once measured the latest measure of each indicator, its target was set in such a way to be challenging but not unrealistically too ambitious.

The 5 indicators, their definitions and their targets are shown in the table 1.

Indicator	Methodology	Target
Capacity Requests rate	PaPs Km*days requested / PaPs Km*days offered (%)	>=30%
Fulffilment of customers' wishes rate	Rate of PaPs wished by customers which were offered as PaPs	>=80%
Quantity of Premium offer	Number of premium PaPs offered	>=6
Punctuality gap btw RFC entry and RFC exit	Punctuality 30' Δ Entry-Exit % (from RNE TPM yearly KPI report)	Delta <= 16%
Overall Users' Satisfaction	Overall Satisfaction based on the specific question of the USS	>=75%

Table 3

In parallel, a monitoring system has been set up and implemented to assess the current situation and monitor progress with respect to the targets.

The targets were assigned at the beginning of October 2022. At the time of drafting this document, after almost a year, a first monitoring of the results achieved has been done. Table 2 sums up the performance. By “premium offer” it is meant the offer of features for PaPs/RC that provide customers with more benefits than the standard catalogue paths offered by the single IMs of the RFC. For example, they are the offer of paths for longer or heavier trains than standard.

All targets have been reached.

Next year the performance will be assessed again.

Indicator	Methodology	Target	Performance
Capacity Requests rate	PaPs Km*days requested / PaPs Km*days offered (%)	>=30%	36%
Fulffilment of customers' wishes rate	Rate of PaPs wished by customers which were offered as PaPs	>=80%	93%
Quantity of Premium offer	Number of premium PaPs offered	>=6	8
Punctuality gap btw RFC entry and RFC exit	Punctuality 30' Δ Entry-Exit % (from RNE TPM yearly KPI report)	Delta <= 16%	12%
Overall Users' Satisfaction	Overall Satisfaction based on the specific question of the USS	>=75%	80%

Table 4

Baltic-Adriatic RFC publishes several reports of performance assessment. The Annual Reports, Performance & KPIs reports, Train Performance Management Reports and User Satisfaction Surveys Reports can be found in CIP. Other RFC KPIs reports can be found on RNE site under this link: https://rne.eu/corridor-management/rfc-kpis/.

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6 Investment Plan

This section contains the updates regarding the investment plan of the Baltic-Adriatic RFC.

In sub-section 6.1 the approach regarding a Capacity management plan is described.

Sub-sections 6.2 and 6.3 provide an update of the information given in the first version of the Implementation Plan by displaying the updated table of the infrastructure investment planned along Baltic-Adriatic RFC (6.2) and the updated information on the plan for the deployment of interoperable systems (6.3), which satisfies the essential requirements and the technical specifications for interoperability which apply to the network as defined in EU Directive 57/2008.

6.1 Capacity Management Plan

As mentioned in sections 2.3 and 2.3.2, Baltic-Adriatic RFC addresses the issue of operational bottlenecks by their regular monitoring (see mentioned sections for details).

As far as a better use of the capacity is concerned, as described in Chapter 3 “Market Analysis Study” of this document, in 2021 Baltic-Adriatic RFC finalized a large capacity study, whose goal was mainly to define tools and methodologies aimed at the optimization of the capacity offer, taking into account all elements which influence the use and availability of railway capacity.

The Executive Summary of the study is available on RFC5 website on the following link: https://www.rfc5.eu/studies/ and on Customer Information Platform for download.

The Executive Summary outlines some main findings for improving cross-border management of capacity in the future. Some of the items highlighted are currently under discussion in the context of the TTR project “Timetable Redesign” at RNE level. As for the detailed list of infrastructure projects which have an impact on capacity bottlenecks, as they are part of the investment plan, please check following Chapter 6.2.

6.2 List of Projects

In order to keep the list of the project up-to-date, we put all of the planned project into the Customer Information Platform, where the projects can be displayed in a map view. You can access the Customer Information Platform by clicking the link: Customer Information Platform.

6.3 Deployment Plan

In 1995 the European Commission defined a global strategy for the development of the European Rail Traffic Management System ERTMS with the objective to prepare its future implementation on the European railway network and incorporated it into the interoperability Directives and subsequently

into the Technical Specifications for Interoperability of the Control-Command and Signaling subsystem both for the high-speed and the conventional European railway system. In this chapter we would like to provide the update of this information. The complete information regarding ERTMS on RFC Baltic-Adriatic can be found on Customer Information Platform by clicking this link: Customer Information Platform.

The update of the information was done by the Infrastructure & Interoperability working group, taking into consideration the National Implementation Plans of each infrastructure manager.

The National Implementation Plans can be found also by clicking each flag below:

6.4 Reference to Union Contribution

Baltic-Adriatic RFC was granted by CINEA with European Funding that was used for the setting up, the operation and the improvement actions of the RFC, namely:

- CEF Grant Agreement n. 2014-EU-TM-0335-S: “Studies and activities regarding enhancement of Baltic-Adriatic Rail Freight Corridor 5 offer” which covers the years 2016 to 2020, the beneficiaries in 2016 being the individual RFC’s members, with the coordination of PKP PLK, while from 2017 onwards the EEIG is the sole beneficiary
- PSA Grant Agreement n. 2016-PSA-RFC05: “Client oriented development and improvement of the efficiency of Baltic-Adriatic Rail Freight Corridor”, the beneficiaries being the Infrastructure and/or Transport Ministries of the Czech Republic, Slovenia, Italy and Poland and the EEIG itself, that acts as Coordinator as well; this action covers the years from 2018 to June 2021.

More recently, after the termination of the previous funds, Baltic-Adriatic RFC was granted by CINEA with another European Funding under the CEF TA action. This action covers the period July 2021-December 2024.

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7 Remarks from RAG and TAG

RCC Slovenia provided the following feedback:

1) At point 2.3.1 Infrastructure bottlenecks, for Slovenia:

a) Station Ljubljana – insufficient capacity

c) Station Hodoš – lack of capacity

d) Station Koper tovorna – lack of capacity, short station tracks

2) At point 2.3.2 Operational Bottlenecks – Locos change at the border, there are still huge lack of short tracks for locos for different RUs.

SŽ-I response on comments submitted by RCC Slovenia:

Identification of the location of the bottlenecks (e.g. capacity constraints and delays) is primarily possible on the basis of data provided by specific IM and they cannot be based on prediction or plans of one specific RU.

Transmitted SŽ-I bottleneck table corresponds current and short-term infrastructure conditions and is based upon expected course to improve the situation:

1)
   a) Station Hodoš border is relatively new station with sufficient capacity.
   b) Station Koper tovorna was recently renewed, its capacities depend on the Port of Koper capabilities. Real bottleneck is Divača - Koper line which is already declared as the bottleneck.
   c) Station Ljubljana – not only station, but whole Ljubljana hub is declared as bottleneck.

2) The dwell time on the border stations depends on the individual carrier, from the number of their requirements and activities /SŽ-I agrees with the limitation of the retention time in border area/.