CORRIDOR
RHINE ALPINE

2022 ANNUAL REPORT

RAIL FREIGHT CORRIDOR RHINE–ALPINE

Funded by the European Union

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Learn more about the Corridor and its organisational structure.

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INFRASTRUCTURE PROJECTS 30

This chapter reports on projects that made significant progress or were completed during 2022. These projects are part of the Implementation Plan of RFC Rhine-Alpine.

KEY TOPICS IN 2022 40

Despite the challenges, especially due to the Ukraine war and the related energy crisis, we jointly supported the gradual improvement of conditions for rail freight on the Corridor lines and for cross-border traffic. Here are RFC Rhine-Alpine's focus topics for 2022, with joint information from the Management Board and the Executive Board.

ANNEX

3,900 KM
OF CORRIDOR LINES

5
SEAPORTS
- AMSTERDAM
- ANTWERP–BRUGES*
- GENOA
- NORTH SEA PORT**
- ROTTERDAM

MORE THAN
100
TERMINALS

6.9 MILLION PAP-KM
ALLOCATED BY THE C-OSS FOR TT2023

57.1 KM
WORLD'S LONGEST RAILWAY TUNNEL
>> GOTTHARD BASE TUNNEL

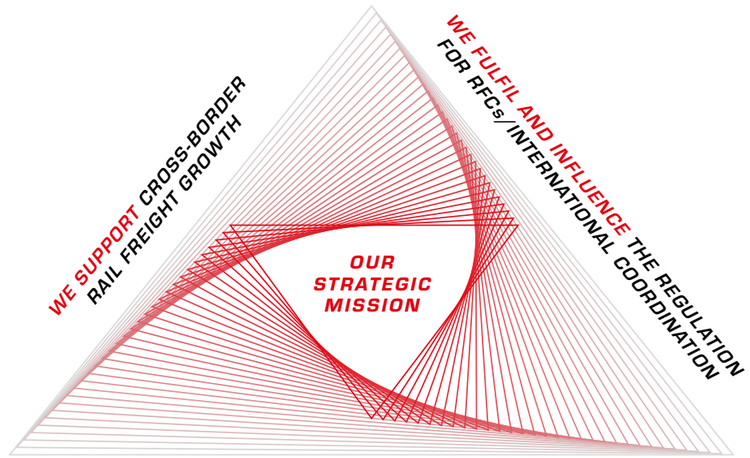
*North Sea Port – merger of the ports of Ghent, Vlissingen and Terneuzen
**Name of the unified port company after the merger of the ports of Antwerp and Zeebrugge

VISION

With our services, we facilitate cross-border rail freight transport to create a competitive advantage against other transport modes. Our partner IMs/AB cooperate intensively to achieve a consistent transport chain and to provide better railway services for international freight transport in Europe.

By enhancing flexibility and quality of rail freight services on the Corridor and optimising the use of scarce capacity through a high level of international cooperation, we want to foster rail freight services as a sustainable transport mode in Europe. Jointly, we make the shift from road to rail happen.

The objectives of RFC Rhine-Alpine were formulated as strategic missions by the Management Board in January 2021. They describe the objectives of RFC Rhine-Alpine (growth of rail freight, international harmonisation and coordination), and also indicate the role the RFC can realistically play in pursuing these objectives (support, push and fulfil / influence).



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IN 2022, EUROPE HAS MOVED CLOSER TOGETHER.

In the beginning of 2022, the impact of the COVID-19 pandemic on the European rail freight sector faded. Transport volumes had reached pre-pandemic levels on RFC Rhine-Alpine, as global supply chains returned to a more stable state. However, the overall economic recovery was slowed down considerably by the war of aggression launched by Russia against Ukraine. This posed new challenges to Infrastructure Managers, harbours, terminals and Railway Undertakings alike, as energy transports became a focus topic on the Corridor lines to ensure macroeconomic stability. Coal transport had been a key market for rail freight in the past, but the shift in energy production to renewable energy sources had brought a significant decline in coal transports in the last ten years. All stakeholders in the transport chain did their very best to work together and adapt operations as fast as possible to the new demand by shifting loading and transport capacity towards the priority objective of stabilising European energy supply. In addition to the energy supply also the EU Solidarity Lanes initiative with increasing land-based transport capacity for the transport of grain from Ukraine was a new priority for the rail freight corridors.

Despite re-opened supply chains and additional energy transports, the overall number of cross-border freight trains on RFC Rhine-Alpine only slightly increased compared to 2021, with the exception of additional traffic on the border between the Netherlands and Germany. The main constraint on capacity on the Corridor in 2022 was increased construction activity on key sections of the main lines, which will remain an issue in the foreseeable future.

Over the last years, a stable amount of Pre-arranged Paths (PaPs) was offered on different sections of RFC Rhine-Alpine. Main areas of improvement for the PaP offer were the corresponding parameters, such as higher profiles, and adapted routing, taking into account the wishes of applicants. This led to an increased amount of requested PaP-km for TT2023 compared to TT2022 (+20 % at X-8). A negative effect of the increase in the number of both freight and passenger trains was a decline in performance. The overall RFC Rhine-Alpine exit punctuality (30 min threshold) decreased from 52 % to 48 % in 2022, despite significant improvements in the second half of the year. Compared to pre-pandemic levels (2019), the punctuality on the Corridor has significantly decreased from 55 % to 48 %. The decrease in performance is a risk to further rail freight growth and capacity usage in the future and therefore must be addressed.

Lack of capacity on the Corridor lines remains the biggest growth constraint on RFC Rhine-Alpine. Even though important sections of the Corridor are currently being expanded, a significant increase in capacity and thus also in quality can only be achieved with the completion of important construction works in the upcoming years. Among them are the Karlsruhe – Basel, Oberhausen – Emmerich and Domodossola – Sesto Calende connections.

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In order to sustainably improve the declining punctuality on the Corridor, the Executive Board started a joint dialogue with Infrastructure Managers, Railway Undertakings and Terminals to identify problem areas causing a decrease in quality and solve them in the short to medium term. Activities to improve quality and performance on RFC Rhine-Alpine will be jointly deepened in 2023. Furthermore, Member States and the EU reaffirmed their commitment to support the climate-friendly modal shift. Accordingly, the involved Member States pushed the infrastructure and ERTMS development on RFC Rhine-Alpine to provide the much-needed additional capacity on the Corridor lines in the upcoming years.

The Railway undertaking Advisory Group (RAG) pointed out the major challenges that arose due to the increased construction activity and the resulting short-term loss of capacity on the main lines. This will continue to be a major issue in the coming years and we are working jointly to find solutions via suitable re-routing lines.

In 2022, RFC Rhine-Alpine was awarded funding under the EU's CEF II Transport Call for the period 2021 – 2024. The basic funding awarded serves to support the fulfilment of tasks under the Regulation (EU) 913/2010.

On the 5th of December 2022, the EU Transport Ministers adopted the general approach regarding the revision of the TEN-T Regulation. The ambitious revision includes the future merger of the Rail Freight Corridors Rhine-Alpine and North Sea-Mediterranean. This development has high potential since the two corridors serve partly the same flows of goods and interoperability between the corridors can be improved. Furthermore, the revision foresees the integration of the

Rail Freight Corridors and the Core Network Corridors into European Transport Corridors.

This Annual Report provides an overview of the main developments on RFC Rhine-Alpine regarding KPIs, performance, infrastructure and key topics in 2022. We would like to thank all persons involved in the Corridor for their contribution to improved international cooperation and infrastructure in 2022.

Ebru van Schie Akdag
Chairperson of the Executive Board

Guus de Mol
Chairperson of the Management Board

Marc Adler
Managing Director of RFC Rhine-Alpine

Workshop at the quality conference hosted by the Swiss FOT in Bern in September

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RFC RHINE-ALPINE IN A NUTSHELL

ORGANISATION

Regulation (EU) 913/2010 concerning a European rail network for competitive freight entered into force on 9 November 2010. It defined the establishment of Rail Freight Corridors with the overall purpose to increase rail freight's competitiveness and market share on the European freight transport market. European Infrastructure Managers embraced this chance for enhanced collaboration and work together in eleven corridors running across Europe.

The cooperation of Infrastructure Managers (IMs) and Allocation Body (AB) on RFC Rhine-Alpine is organized by a joint office and has the legal form of a European Economic Interest Grouping (EEIG). All IMs and the AB of the corridor countries are members or contractors of the EEIG:

- ProRail (The Netherlands)
- Infrabel (Belgium)
- DB Netz AG (Germany)
- SBB Infrastruktur (Switzerland)
- BLS Netz AG (Switzerland)
- TVS (Swiss Allocation Body)
- RFI (Italy).

The Executive Board (ExB) represents the Member States of the Corridor, through the participation of the Ministries of Transport and takes landmark decisions for cooperation on the Corridor. Since June 2022, the Executive Board is chaired by Ebru van Schie Akdag from the Dutch Transport Ministry, taking over from Peter Hondebrink who left the Ministry in May.

The Management Board (MB) consists of high-level management representatives of the IMs/AB and is responsible for the further development of the international cooperation of the IM/AB partner organisations. The MB has set up a Programme Management Office (PMO) as the permanent working organisation.

Management Board meeting at RFI headquarters in Rome in September 2022.

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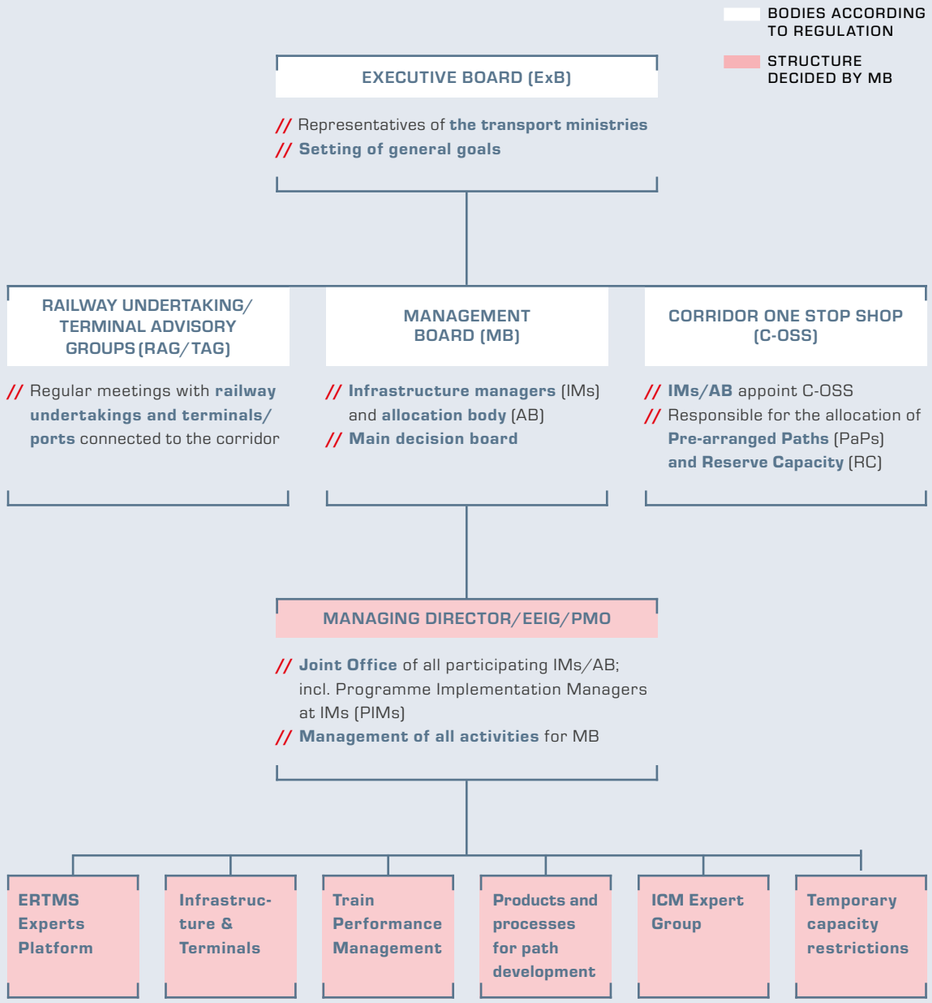
ORGANISATIONAL STRUCTURE OF RFC RHINE-ALPINE



Six working groups with experts from IMs of the corridor; yearly agreement on workplans and objectives

The PMO is represented by the joint office team and one delegate of each IM/AB, the so-called Programme Implementation Managers (PIM). They are responsible for the coordination and reporting of their national project implementation to the Corridor organisation. Furthermore, the PMO monitors the goals and actions of currently six RFC Rhine-Alpine Working Groups (WG) and Expert Groups. These groups were established to work efficiently on various topics for the improvement and support of cross-border rail freight services on the Corridor.

The Railway undertaking Advisory Group (RAG) and the Terminal Advisory Group (TAG) are advisory groups to the MB. They serve as exchange platforms to involve Railway Undertakings (RU), terminals and ports as well as stakeholders of the intermodal transport chain to discuss customer opinions and requirements for the development of RFC Rhine-Alpine from an external point of view. The Corridor One-Stop-Shop (C-OSS) facilitates train path management for international rail freight. It is the single point of contact allowing applicants to request and receive answers regarding infrastructure capacity for international freight trains.

In September 2022, Alessandro Fattorini left the joint office team of the Corridor after 5 years of service. RFC Rhine-Alpine thanks him for his outstanding commitment.

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This chapter provides information about traffic developments at borders and the modal split in transalpine traffic and in the ports of Antwerp, Rotterdam and Genoa as well as about the most recent KPIs on capacity management and operations. The KPIs have been coordinated with external stakeholders like RUs and MoTs and are the same for all RFCs.

MARKET DEVELOPMENT KPIs

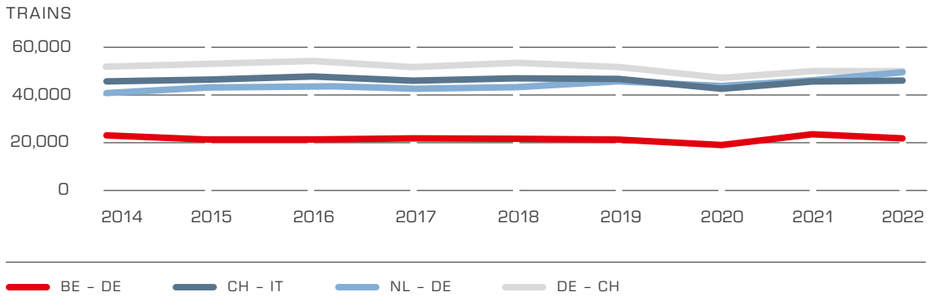
This chapter gives information on the development of the KPI number of trains per border for RFC Rhine-Alpine and the modal split of rail in selected ports and in transalpine freight traffic. The information on the number of trains is provided by the IMs and is mainly related to the border points on the Corridor. Regarding the modal split, existing information from different sources is compiled in this report. The KPI Ratio of the Capacity Allocated by the C-OSS and the Total Allocated Capacity can be found in the chapter "Capacity Management KPIs", p. 26

KPI NUMBER OF TRAINS PER BORDER

The general evolution in 2022 for the entire Corridor, compared to 2021 was an increase in traffic of +1 %. In 2022, traffic has remained on the level of the previous year, but was hampered by trade and supply disruptions, and a significant increase in TCRs along the Corridor lines.

KPI NUMBER OF TRAINS PER BORDER

Number of commercial freight trains crossing selected border points



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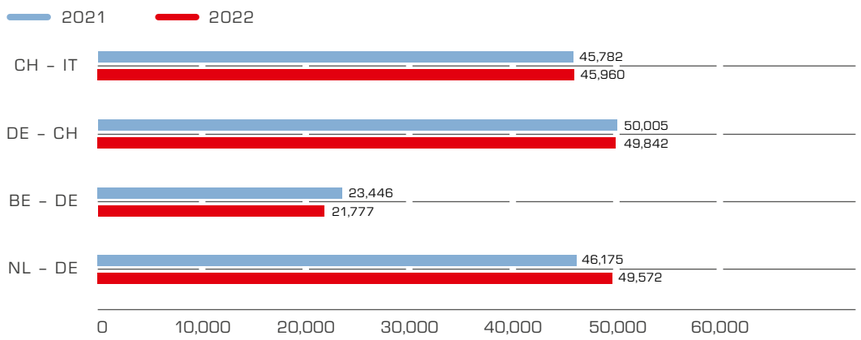
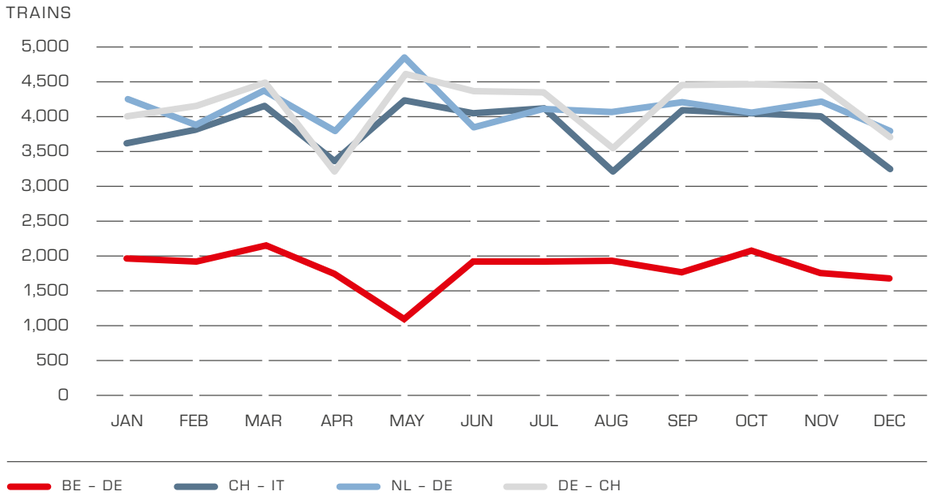
KPI NUMBER OF TRAINS PER BORDER – COMPARISON 2022/2021



MONTHLY NUMBER OF TRAINS PER BORDER

Number of commercial freight trains crossing selected border points



BORDER CROSSINGS NL – DE

2022 was the busiest year ever at the border points between the Netherlands and Germany, with an increase in traffic of 7.36 %. This is the highest number of trains in one year since the Corridor was established in 2013. Already in 2021, traffic between NL-DE increased by 6.0 % compared to 2020.

BORDER CROSSING BE – DE

The traffic at the Montzen/Aachen West border point decreased by 7.12 % in 2022 compared to 2021. Main reason for this decline is the closure of the border point in May 2022 due to planned construction works. Traffic was diverted across the Dutch-German border.

BORDER CROSSING DE – CH

Compared to 2021, traffic at the Basel border point slightly decreased by 0.33 % in 2022, still under constraints due to long-term TCRs between Karlsruhe and Basel.

BORDER CROSSINGS CH – IT

In 2022, the overall evolution on the border points between Switzerland and Italy compared to 2021 was a slight increase in traffic of 0.39 %.

MODAL SPLIT OF TRANSALPINE FREIGHT TRANSPORT AND IN SELECTED PORTS

TRANSALPINE TRAFFIC

In 2022, the transalpine freight transport remained on the level of the previous year. In total, 38.3 million tons were transported by road and rail in 2022. Compared to the previous year, this corresponds to a slight decrease of -0.3 %.

Transalpine road freight transport recorded a decline in volume of -0.7 %, whereas the volume transported via rail only decreased by -0.2 %. The total of goods transported via rail amounted to 28.3 million tons.

Thus, transalpine rail freight transport volume remains on a high level.

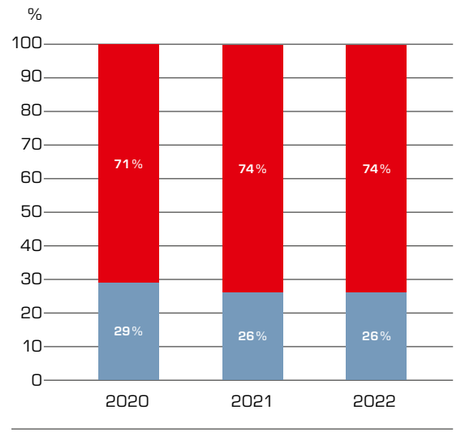
The minor changes in volume of transalpine freight transport had no effect on the general modal split. With 2021 being the year with the highest rail share in transalpine traffic in the last 30 years, 2022 confirmed this trend. The rail share of total transalpine freight traffic in Switzerland remained at 73,9 %.

As the information is usually not available for the previous year when the Annual Report is compiled, only the development for the ports up to 2021 is shown.

PORT OF ROTTERDAM

The total throughput in the Port of Rotterdam in 2021 compared to 2020 increased by 2 %. In 2021, compared to 2020, the share of road increased by 0.8 % while the share of inland waterways (IWW) decreased by 1.6 %, and the share of rail traffic decreased by 0.3 %.

MODAL SPLIT OF TRANSALPINE FREIGHT TRANSPORT 2020–2022



Official numbers for 2021 were corrected by the Swiss FOT after the publication in the Annual Report 2021 of RFC Rhine-Alpine.

PORT OF ANTWERP

After a weak 2020, the volume of containers transported by rail showed a recovery in 2021.

On the 22nd of April 2022, the merger of the ports of Antwerp and Zeebrugge into the unified port company, Port of Antwerp-Bruges, became official. The strengths of both port locations will be capitalised on and the unified port continues to play a crucial role in major freight flows.

PORT OF GENOA

In 2021, Genoa port traffic by rail increased by almost 13 %, reaching more than 8,650 trains during the year, hence growing more than the gateway volumes which increased by 7 % compared to 2020. In general, the port's overall throughput did not return to the pre-pandemic level, but rail volumes (TEUs) continued to perform very well with an increase of 10 compared to 2019, mainly pushed by the increase in the Pra/Voltri container terminal with almost 40,000 additional TEUs handled by rail. In total, more than 338,000 TEUs were shipped by rail in Genoa during 2021, with the modal split for rail reaching 15.3 % representing an increase of one percentage point compared to 2020.

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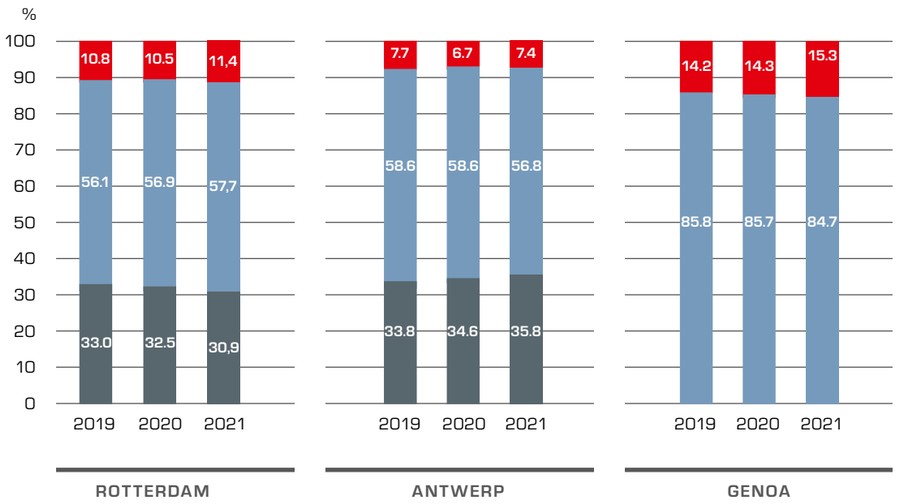
MODAL SPLIT IN PORTS 2019 – 2021



RAIL
ROAD
IWW

Definition: modal split [%] of freight traffic at the Ports of Rotterdam, Antwerp and Genoa; the modal split is calculated for hinterland container traffic on the basis of TEUs.

OPERATIONS KPIs

PUNCTUALITY REPORT 2022

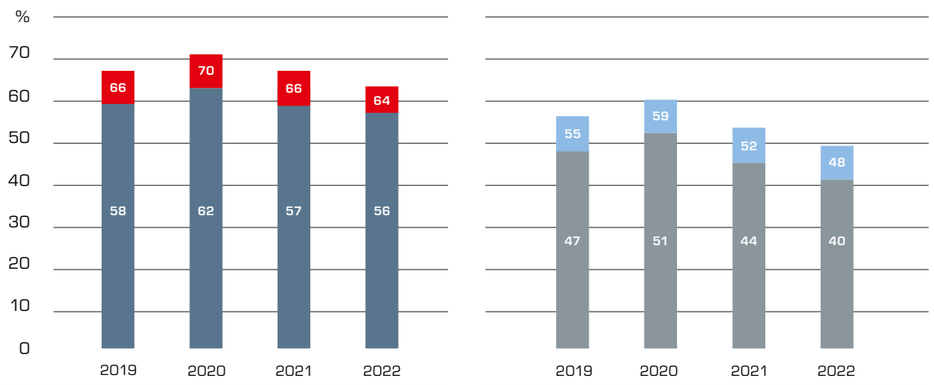
Punctuality calculation is performed using the Train Information System (TIS) data by comparing the timetable delivered to TIS and the running time in operations at defined measuring points. On the Customer Information Platform (CIP), RFC Rhine-Alpine publishes three reports on a monthly basis:

- The punctuality development management summary, with punctuality figures, number of trains and distribution of delay reasons.
- The punctuality overview report with different delay thresholds.
- The punctuality development report on RFC Rhine-Alpine lines and at relevant points and borders.

The RFCs agreed on considering international freight trains on the Corridors as punctual when they are not more than 30 minutes delayed. Other international Working Groups set a 15-minute threshold. For this reason, both figures are shown as an overall punctuality KPI for RFC Entry and RFC Exit. To understand the graphs correctly, it is necessary to know that RFC Entry is defined as the location where the train first enters an RFC line (first point of the train run belonging to the RFC). RFC Exit indicates the location where the train exits the RFC line the last time (last point of the train run belonging to the RFC).

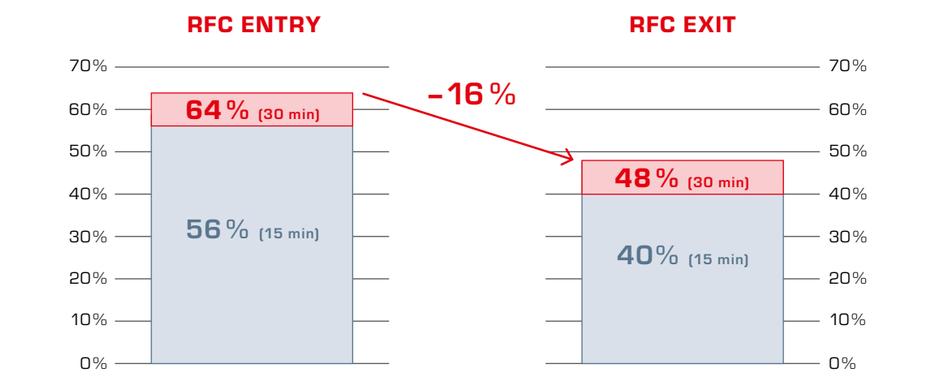
In 2022, the punctuality on RFC Rhine-Alpine further decreased. Since 2021, passenger traffic recovered from the low Corona values almost back to pre-Corona level. Specifically in Germany the relocation towards rail was strongly promoted with the "9-Euro Ticket" which was available from June to August. The rush of passengers during this period created severe operational shortages which had a high impact also on the production quality of RFC Rhine-Alpine. Some challenges as the worldwide disrupted logistic chains, which caused major delays in some for RFC Rhine-Alpine relevant seaports, remained. New challenges arose with the Ukraine Crisis with increasing refugee and military traffic across Europe and the connected energy crisis with (again) increasing coal transports and the prioritization of such traffic in Germany. Within our RFC specifically the part around the Ruhr Area and the connected border sections were affected. Even the pandemic partly changed

PUNCTUALITY DEVELOPMENT



RFC ENTRY – 30 MIN-THRESHOLD
RFC ENTRY – 15 MIN-THRESHOLD
RFC EXIT – 30 MIN-THRESHOLD
RFC EXIT – 15 MIN-THRESHOLD

KPI RFC ENTRY AND EXIT PUNCTUALITY IN 2022



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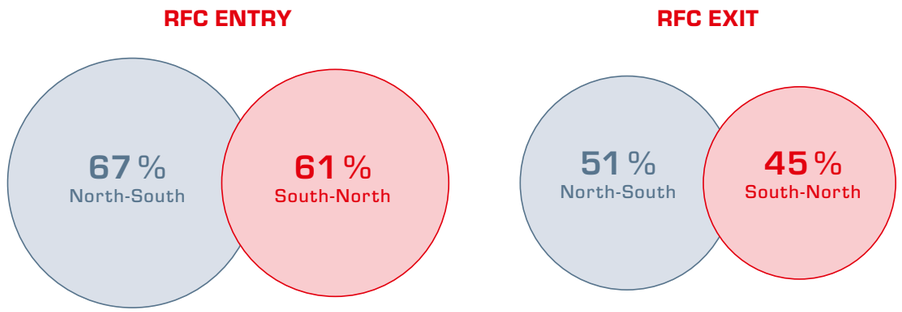
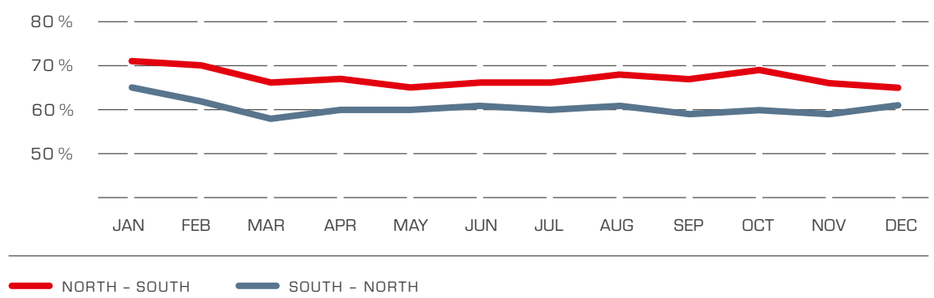
RFC ENTRY AND EXIT PUNCTUALITY PER DIRECTION IN 2022 (30' THRESHOLD):

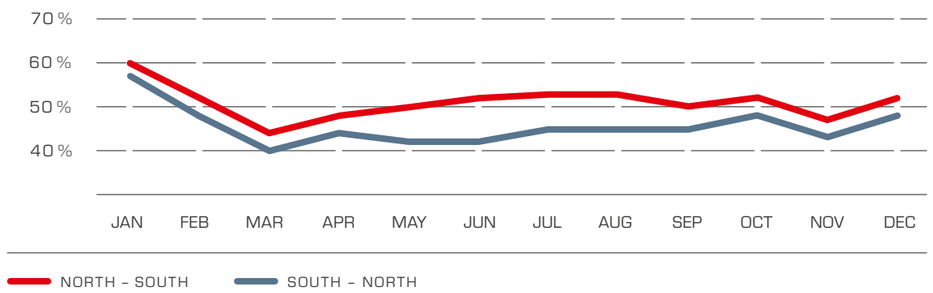


travelling behaviours – in Switzerland e. g., an evident shift from commuting towards more leisure usage was observed – and scarce capacity, especially around nodes, further impacted operational flexibility and punctuality. Almost any small disruption upsets the tight planning of timetable and especially the long-distance traffic flows, as the freight trains on the Corridors then often lose their planned paths. As a consequence, increasing delays need to be handled by different players across borders and turnarounds of staff, traction units and rolling stock need to be re-planned. Accumulations of these effects sometimes make system recovery almost impossible and leading to a delayed start of trains out of terminals. Temporary capacity restrictions (TCR) required to assemble many ongoing projects to improve the networks or solve capacity issues further exacerbated the situation. This effect was visible on the German network, specifically. On RFC Rhine-Alpine the hotspots are almost to be found everywhere – accentuated on the section Frankfurt – Basel. Within Switzerland the completion of the Alptransit Tunnels and well-coordinated measures to solve other capacity bottlenecks allow enough flexibility to accommodate needed TCRs for further projects and maintenance works with acceptable impact on planned traffic at the moment. Punctuality figures confirm even a certain possibility to recover time in transit through the Alps.

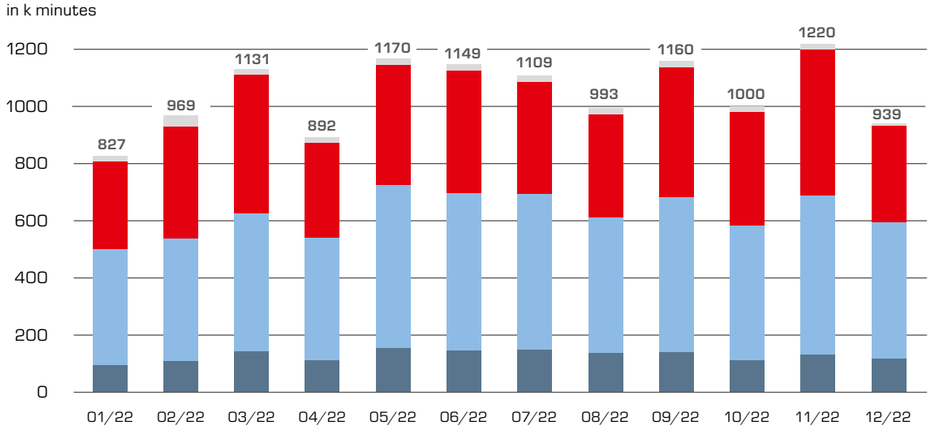
MONTHLY RFC ENTRY PUNCUTALITY PER DIRECTION



MONTHLY RFC EXIT PUNCTUALITY PER DIRECTION



TOTAL NUMBER OF DELAY MINUTES REPORTED TO TIS FOR BOTH DIRECTIONS



The graph abouve shows the total number of delay minutes reported by the IMs to TIS for both directions.

IM delay reasons: e. g. timetable planning, dispatching errors, infrastructure failures, temporary capacity restrictions (as far as not considered in timetable), unplanned works.
RU/others' delay reasons: e. g. train preparation, train formation by RU, rostering/re-rostering, rolling stock failures, loading irregularities, RU staff. RU/others' delay reasons also include delays caused by terminals (loading, unloading) or other parties (e. g. truck drivers) before handing the train over to the RUs.
Secondary delays: delays indirectly caused by the previous reasons, e. g. delayed circulation of another train and the resulting track occupation or conflicts within nodes. Incidents with trains/dangerous goods are also displayed here.
External reasons: delays which are out of the influence of IMs and RUs, e. g. weather conditions, natural events, authorities.

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FACTORS AFFECTING OVERALL CORRIDOR PUNCTUALITY IN 2022

THE NETHERLANDS

During 2022 there were some longer periods of total closure on the German network between Emmerich and Oberhausen. During these time frames freight trains from and to Germany had to run via the border stations Oldenzaal (Bentheimroute) and Venlo (Brabantroute). These are both routes with not only freight traffic but also with dense passenger traffic. Punctuality of the freight trains running via these routes is always lower than on the for freight dedicated Betuweroute. Those re-routings furthermore cause regular capacity problems in the yard Venlo and the German yard Viersen where trains in the direction Ruhr Area need to turn direction.

During the year there were also some infrastructural disruptions on the Rotterdam Harbourline and the Betuweroute affecting the punctuality on RFC Rhine-Alpine. Especially the problems with the constructional safety of the Suurhoffbrug on the Rotterdam Harbourline were affecting the punctuality. Due to this problem, only one train at a time was allowed on the bridge from June 2022 onwards. Since July 2022, this measure is only applicable in special situations (heavy wind or low temperatures) or for heavy trains (coal and ore).

An automatic brake test.

BELGIUM

Most delays on the Infrabel network were caused by single incidents, delays from the neighbouring IM (Germany), exceptional weather and cable theft. Despite measures to prevent theft the latter still is a big problem.

Punctuality figures were the most influenced by the following:

- Two incidents with brake related breakdowns
- One incident concerning a person, working for a subcontractor
- One incident during exceptional weather conditions (storm Eunice)
- During works in the station of Gent-Sint-Pieters a bombshell from World War I was found
- Two cases of cable theft
- A derailment of a freight wagon in Bressoux.

GERMANY

Following events had most impact on punctuality:

Storms Xandra, Ylenia and Zeynep (February 2022): From 16th to 19th of February, three storms in a row wreaked havoc across Germany. Hurricane gusts of up to 140 km/h also spread across the lowlands. The storm front moved over three days beginning from northwest to south-east across Germany and only slowly weakened. The Central, West, North and East regions were particularly affected. Numerous damages and disruptions were primarily caused by fallen trees on tracks and overhead lines, partly also associated train collisions and long-term short circuits.

GSM-R Failure Region North (October 2022): Due to the almost complete failure of GSM-R in the northern region on 8th of October from around 6:30 a.m. to 10:00 a.m. and the resulting loss of communication between the trains and the dispatchers and operations centres, rail traffic in the entire northern region was suspended. The trains were stopped in suitable stations or passing loops or did not depart from the starting station. From around 10:00 a.m. traffic was gradually restarted. Considerable subsequent delays occurred throughout the day due to the disrupted resource planning for train crews and vehicle rotations.

Construction works on the railway bridge crossing the Albert Canal near Genk.

2nd World War bomb defusing Karlsruhe (November 2022): On 14th of November an aircraft bomb from the Second World War was found on a construction site in the area of the railway freight yard near Stuttgarter Straße. According to the city of Karlsruhe, it weighed 500 kilograms. For the defusing of the bomb a closure of the railway infrastructure on 15th of November was necessary. Affected by the closure were the freight station and the north end of Karlsruhe main station. Inflow control for freight trains to the Swiss border region was put in place by the network control centre.

Freezing rain (December 2022): On 14th of December flash ice and freezing rain caused significant disruptions in southern Germany. In some parts of the network the maximum speed of the trains had to be reduced due to ice formation.

Moreover, several long-term construction works also affected punctuality in 2022:

Emmerich – Oberhausen:
To upgrade the Emmerich-Oberhausen line to three tracks, DB Netz almost always works under rolling wheels. The Emmerich-Oberhausen railway line was closed twice for a longer time in 2022, in spring from 5th to 20th of March and later at the end of summer between 26th of August and 9th of September on top of several weekend closures. In addition to measures for the three-track expansion, the maintenance department of DB Netz AG also carried out works along the route. During these times freight traffic on the Betuweroute was mainly re-routed through Kaldenkirchen.

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Bridge demolition works in Aachen – West:
A more than 50 year-old pre-stressed concrete street bridge had to be demolished between 13th and 27th of May, which led to a total closure of the Aachen-West shunting yard and the German-Belgian railway border.

Karlsruhe – Basel:
The 182 km Karlsruhe-Basel rail link is the centrepiece of RFC Rhine-Alpine. The existing Rheintalbahn section of this high-speed link is over 150 years old. Serving up to 300 trains a day, its capacity limits have been stretched and exhausted so that upgrading this section to satisfy the rail traffic requirements of today and tomorrow is mission critical. Ongoing works have regular impact on daily operations and punctuality is influenced by almost every planned TCR in this context.

SWITZERLAND

During 2022 the Swiss railway network was spared by major disruptions or weather events impacting operations significantly. The high amount of infrastructure development projects with resulting Temporary Capacity Restrictions was handled with consistent and forward planning. Advanced integration of alternative routings and main impacts within yearly timetable and capacity portioning were the success factor in this context.

Car transport in the port of Ghent (Gent-Zeehaven).

Lugano-Besso underpass construction site.

ITALY

During 2022 specifically main works on the branches to Domodossola and Chiasso borders influenced traffic flows on RFC Rhine-Alpine:

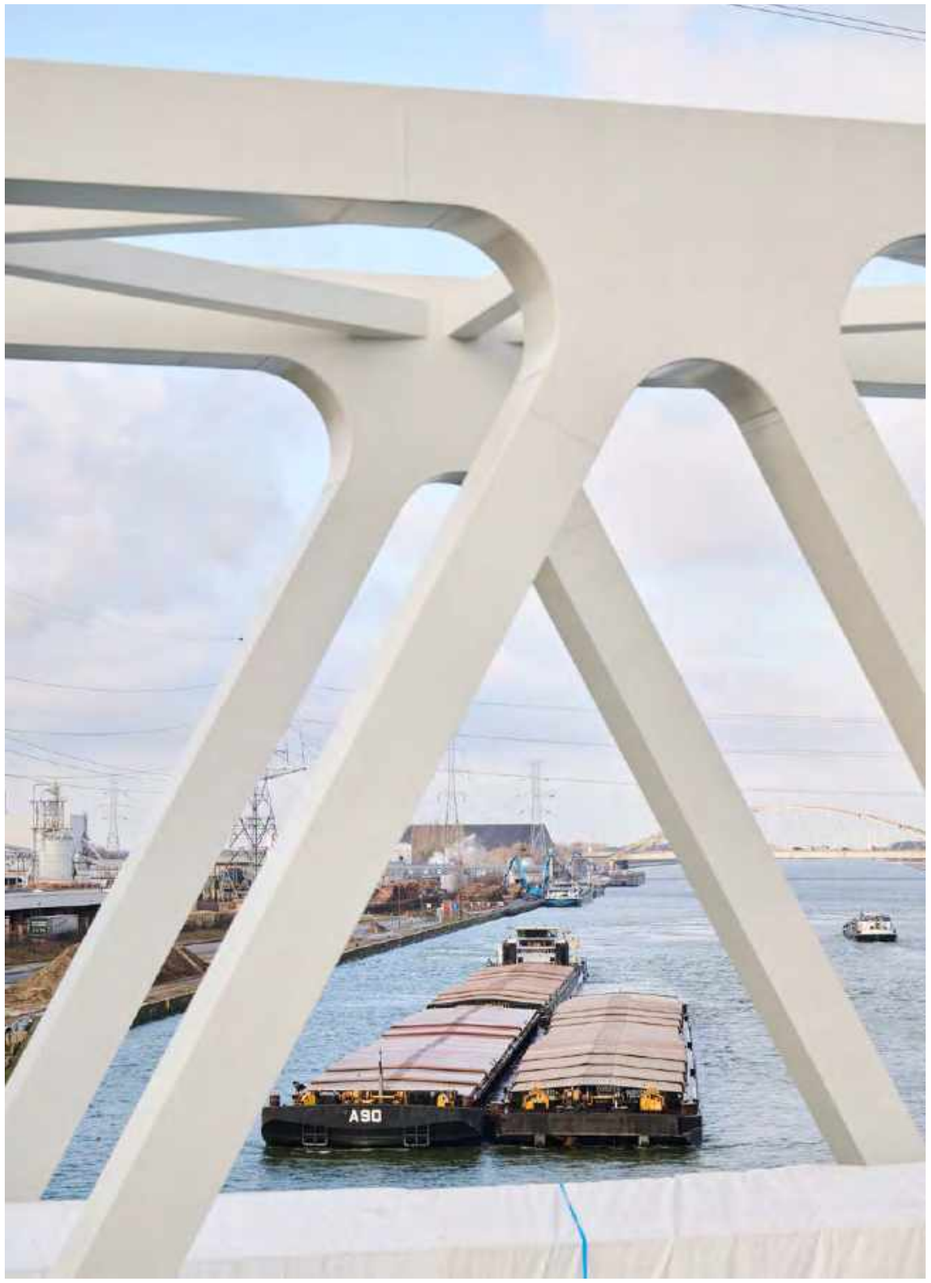
Gallarate – Domodossola line: from Sesto Calende to Arona the line was closed due to maintenance works from 29th of August until 8th of September; freight trains were diverted to alternative lines.

Milano – Chiasso and Milano – Lecco lines: from Sesto S. Giovanni to Monza the lines were alternatively closed from 3rd of July to 28th of August due to maintenance works; timetables of freight trains were changed during this period.

Gallarate – Luino line: from Ternate to Laveno the line was closed from 10th of October to 4th of November due to maintenance works; freight trains were diverted from Gallarate and Laveno via Ispra.

Milano – Domodossola and Milano – Luino lines: for infrastructure upgrading at Gallarate station from 5th to 7th and from 26th to 28th of November the timetable of some freight trains was changed (departure time advanced or delayed). Other trains were diverted or cancelled.

A vessel passing the railway bridge over the Albert Canal.



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CAPACITY MANAGEMENT KPIs

This chapter provides information on the development of the Pre-arranged Paths (PaPs) and Reserve Capacity (RC) offered by RFC Rhine-Alpine.

KPI Volume of offered, requested and pre-booked capacity
This KPI shows the development of offered, requested and pre-booked PaPs for the 2018 – 2023 timetable (TT). Generally, the offered PaPs are planned for operation on seven days a week, yet some connections might have a lower availability (e. g. 4 or 5 running days), or a given PaP might not be available on some days throughout the year due to TCRs.

For TT2023, 18.1 million PaP km were published. The volume of requested capacity (PaPs) was 7.8 million PaP km and increased by 20 % compared to the previous year. 43 % of the offered capacity were requested for TT2023. Due to conflicts between some requests, it was only possible to allocate 88 % of the requested capacity as PaPs. This led to a pre-booked capacity of 6.9 million PaP-km **(see p. 27)**. The remaining 12 % were answered with tailor-made paths. In addition to the requests for PaPs, a high amount of connected feeder and outflow paths was requested and allocated.

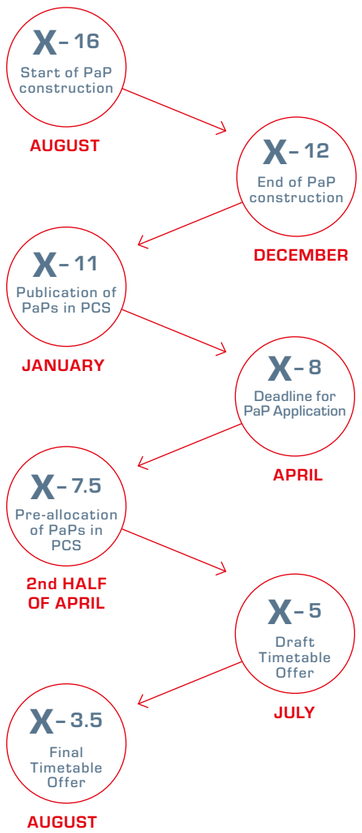
A reserve capacity of 1.8 million path-km was offered for TT2022. As in previous years, no requests were received. For TT2023, the offer remains on the same level at 1.8 million path-km.

KPI Ratio of pre-booked capacity
This new KPI shows the ratio of the volume of pre-booked capacity (at X-7.5) on the volume of offered capacity (PaPs). For TT2023 the ratio is 38.1 %.

KPI Number of Requests including Number of Conflicts at X-8
This KPI shows the number of conflicting and clean requests (i.e., dossiers) made by the applicants in the Path Coordination System (PCS). The number of requested dossiers for TT2023 remained almost on the same level compared to the previous year. The amount of conflicting PaP requests decreased by 6 **(see p. 28)**. All applicants that couldn't receive a PaP after the conflict solving process were answered with an alternative path offer within the deadlines for the draft and final timetable.

KPI Ratio of the Capacity Allocated by the C-OSS and the Total Allocated Capacity
The KPI Ratio of the capacity allocated by the C-OSS and the total allocated capacity is calculated with data provided by the IMs and the C-OSS of RFC

PAP SALES PROCESS



KPI VOLUME OF OFFERED, REQUESTED AND PRE-BOOKED CAPACITY

This KPI shows the volume of PaPs in the phases of PaP publication **(X-11)**, PaP requesting **(X-8)** and PaP pre-allocation **(X-7.5)** in million path-km per year.

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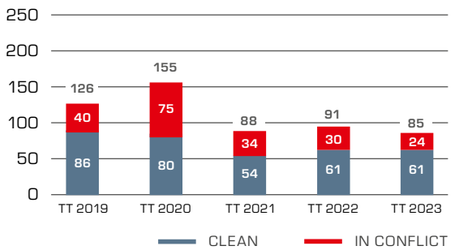
KPI NUMBER OF REQUESTS INCLUDING NUMBER OF CONFLICTS AT X-8



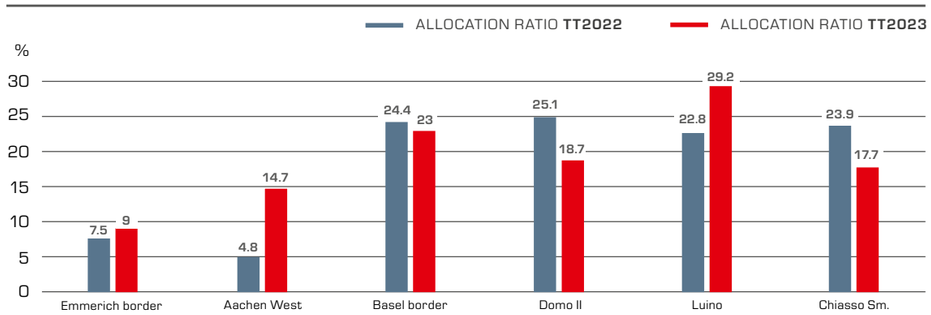
This KPI shows the total number of requests and the number of clean dossiers (multiple path requests placed in PCS which referred to the same PaP on RFC Rhine-Alpine).

Rhine-Alpine, both after the finalisation of the allocation process. At every border of the Corridor, the number of crossing trains, which have been allocated via PaPs in PCS (including feeder/outflow and tailor-made paths), is compared to the number of international freight trains, which were requested via PCS or national systems and allocated by the IMs along the Corridor. Regarding the allocation status, Luino has the highest number of allocated trains in the annual timetable on RFC Rhine-Alpine in absolute numbers, followed by Basel, Domodossola and Chiasso. Having a closer look on the number of allocated trains in the annual TT, the highest numbers are located in the southern part of the Corridor where the requests increased for TT2023. Further traffic shifts within the Swiss axis´ led to a changed distribution of allocated trains from Domodossola and Chiasso.

KPI Average Planned Speed of PaPs

The KPI Average Planned Speed shows the average planned commercial speed of the PaPs on Corridor sections with pre-defined origins and destinations, selected for Long PaPs, Short PaPs as well as for subsections on RFC Rhine-Alpine. The PaPs running on the respective O/D have to cover the whole section to be included into the calculation. At some borders, a longer stopping time is caused by e. g., customs handling or the applicants' desired change of operation. This leads to a lower average speed than at borders without dwelling time. The selected O/Ds serve as examples. Further connected O/Ds would show hardly any difference regarding planned speed (e. g. Amsterdam instead of Maasvlakte).

KPI RATIO OF CAPACITY ALLOCATED BY C-OSS AND THE TOTAL CAPACITY



This KPI shows the ratio of trains which were allocated by the C-OSS as PaPs compared to trains which were requested via PCS or national systems and allocated by the IMs.

KPI AVERAGE PLANNED SPEED OF PAPs FOR TT2024

This KPI shows the average of the planned commercial speed of the PaPs in km/h for selected connections

71.46 km/h

AVERAGE SPEED OF **20** PAPs

45.73 km/h

AVERAGE SPEED OF **15** PAPs

42.05 km/h

AVERAGE SPEED OF **16** PAPs

62.7 km/h

AVERAGE SPEED OF **20** PAPs

50.82 km/h

AVERAGE SPEED OF **15** PAPs

56.18 km/h

AVERAGE SPEED OF **5** PAPs

52.47 km/h

AVERAGE SPEED OF **3** PAPs

48.97 km/h

AVERAGE SPEED OF **18** PAPs

57.93 km/h

AVERAGE SPEED OF **18** PAPs

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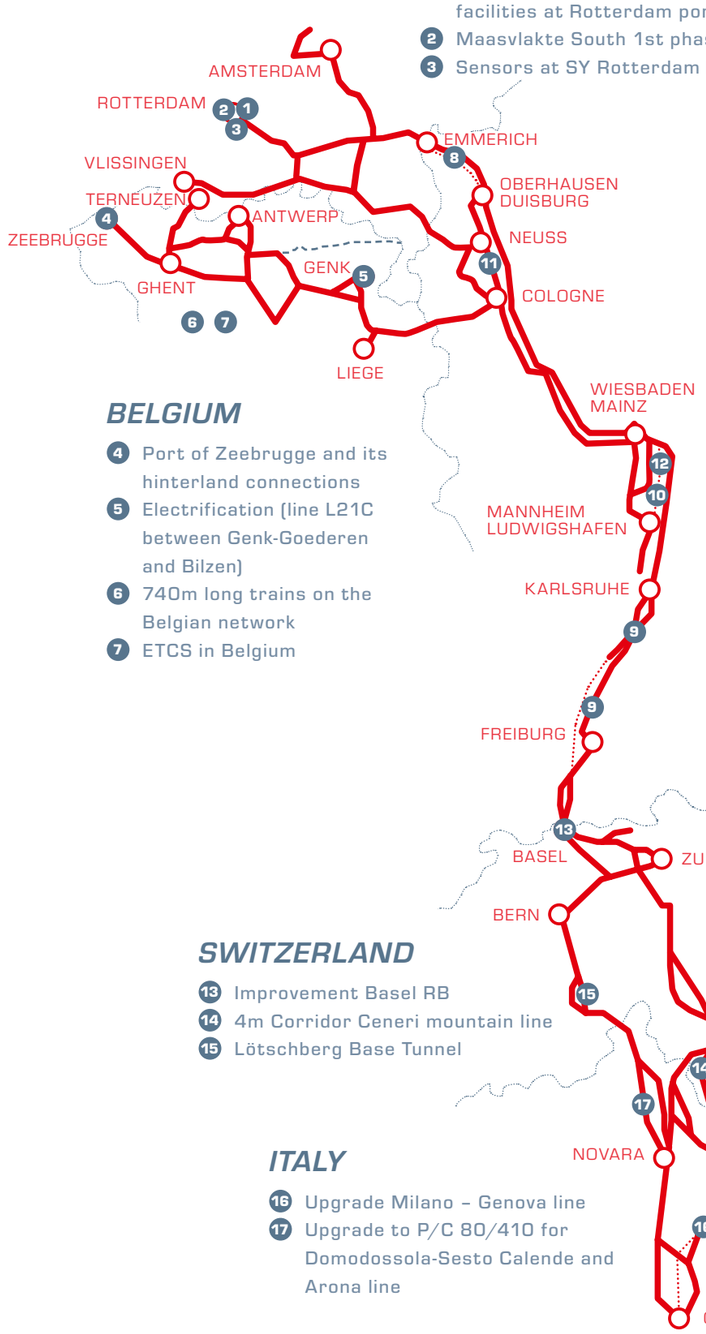
INFRASTRUCTURE

PROJECTS

This chapter reports on projects that made significant progress or were completed during 2022. These projects are part of the Implementation Plan of RFC Rhine-Alpine.

OVERVIEW MAP

PROJECTS ON
RFC RHINE-ALPINE



THE NETHERLANDS
1. Upgrade of the fire extinguishing facilities at Rotterdam port yards
2. Maasvlakte South 1st phase
3. Sensors at SY Rotterdam Botlek

BELGIUM
4. Port of Zeebrugge and its hinterland connections
5. Electrification (line L21C between Genk-Goederen and Bilzen)
6. 740m long trains on the Belgian network
7. ETCS in Belgium

GERMANY
8. ABS/NBS Emmerich – Oberhausen
9. Karlsruhe – Basel
10. New Frankfurt – Mannheim line
11. Cologne – Dortmund
12. ETCS in Germany on Corridor Rhine-Alpine

SWITZERLAND
13. Improvement Basel RB
14. 4m Corridor Ceneri mountain line
15. Lötschberg Base Tunnel

ITALY
16. Upgrade Milano – Genova line
17. Upgrade to P/C 80/410 for Domodossola-Sesto Calende and Arona line

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Captrain cargo train at Rotterdam-Botlek.

PROJECTS IN THE NETHERLANDS

1 UPGRADE OF THE FIRE EXTINGUISHING FACILITIES AT ROTTERDAM PORT YARDS

In 2022, ProRail has worked on upgrading the fire extinguishing facilities at the SY Maasvlakte West, Botlek, Europoort, Pernis and Waalhaven South. In order to meet the requirements of the local administration, wider emergency roads had to be constructed and the dry fire extinguishing pipes have been replaced by a more extensive network of wet ring pipelines with fire hydrants. These measures are an important condition for continuing to shunt with hazardous substances.

2 MAASVLAKTE SOUTH 1ST PHASE

In 2022, the green light has been given for the construction of the first bundle of 6 tracks for 740m trains, including the associated locomotive tracks of the new SY Maasvlakte South. These new tracks are necessary to continue to facilitate the expected growth in the number of freight trains on the Maasvlakte. Expected commissioning date 1st Phase Q4 2026.

3 SENSORS AT SY ROTTERDAM BOTLEK

In 2022, a pilot with sensors took place in the Rotterdam Botlek area. With this test, ProRail has gained additional insight into the use of the tracks without train detection. This has resulted in tighter scheduling of the Time-Space slots. The smaller Time-Space slots were both a better reflection of reality and ensured that both ProRail and RUs could more flexibly plan and adjust their activities. After this successful trial, the Ministry of Infrastructure and Water Management has made 1.4 million Euro available to install these sensors at more railway yards in the Netherlands.

PROJECTS IN BELGIUM

4 PORT OF ZEEBRUGGE AND ITS HINTERLAND CONNECTIONS

The construction of a new fan of sidings in the existing marshalling yard at Zeebrugge, which started in February 2019, continued in 2022. On the 27th of November 2022, the commissioning of the eight tracks in the siding of Zeebrugge took place, including two tracks that can accommodate 740m long trains. The study of the optimisation of the track configuration in the siding of Pelikaan was also nearly finished in 2022. The first phase of the extension of three tracks will take place in 2023 – 2024.

Regarding the third track between Brugge and Dudzele, preliminary works started in July 2021 on the northern part of the third track. Due to budgetary constraints, only limited and urgent works will be carried out in the period 2022-2024. In March 2022, two extra switches were placed at the bifurcation at Dudzele.

The works on the construction of a third and fourth track between Gent and Brugge also continued in 2022. The construction works in Beernem were finished in June 2022. In May 2022, there was the commissioning of the bifurcation of Stuivenberg in Oostkamp. In February 2024 track B of L50D between Y Stuivenberg (Oostkamp) and Y Bellem will be put into service.

5 ELECTRIFICATION

On the 28th of March 2022, the newly electrified line between Genk-Goederen and Bilzen (L21C) was put into service. The connection with L34 and L 21A makes it now possible to use this line as a deviation route for electric freight trains. The works were financed with money from the Recovery and Resilience Facility (RRF).

6 740M LONG TRAINS ON THE BELGIAN NETWORK

The proposal for the construction of 4 long tracks in the bundle of Montzen, submitted under the CEF II Transport Call 2021, was awarded a grant under the Military Mobility envelope by the European Commission in April 2022. The works started at the end of May 2022 and the 4 tracks will be put into service in September 2023 after the signalling works are finalised.

Electrification works between Genk-Goederen and Bilzen (L21C)

The reconfiguration works in the railway yard of Gent-Zeehaven were finished in May 2022. Two tracks were prolonged, allowing to receive 740m trains. With the existing long track, 3 long tracks are available now in total.

In February 2022, the results of the study "side tracks 740m" that started at the end of 2020 to identify the locations on the freight corridors (TEN-T Core Network) where investments are essential to allow running trains of 740m without any restrictions, was presented to the Infrabel management for further decision-making. In the frame of the new Multi-Annual Investment Plan (2023 – 2032) that was approved by the Belgian government at the end of December 2022, the scope of the financing program called "Side tracks 750m" will be defined in 2023.

7 ETCS IN BELGIUM

ETCS deployment continued with the aim of the whole network to be equipped by 2025.In 2022 several stretches on RFC Rhine-Alpine were equipped with ETCS: Liège - Visé (ETCS L1LS - L40) and Antwerp (ETCS L1FS - L11 Y Driehoekstraat – Y Walenhoek) for in total 74 km. ETCS will become mandatory from TT 2026 (14.12.2025)

PROJECTS IN GERMANY

8 EMMERICH – OBERHAUSEN

The design and approval planning for the third track was largely completed in 2022. Additional tendering processes for the construction works have started in the sections Dinslaken, Voerde and Wesel. The entire construction works have been awarded in the planning approval sections 1.1 Oberhausen, 1.3 Dinslaken, 1.4 Voerde and 3.1 Haldern.

In section 1.1 Oberhausen the construction of the extension of the railway line as well as the relevant catenary has continued in 2022.

In Rees, Voerde and Dinslaken catenary and engineering construction works continued in 2022. A part of the bridge construction has

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already been completed. A new platform and a pedestrian underpass are under construction in Dinslaken. In the sections 2.1 Friedrichsfeld and 2.2 Wesel preliminary works have taken place in order to start the construction of the bridges Lippe and Willy-Brandt. The construction works in sections 1.2 Oberhausen-Sterkrade and the construction of the 3rd track in the sections Dinslaken and Voerde will also start in 2023.

Meanwhile seven out of twelve planning approvals have been granted. Five decisions are final non-appealable. The planning approvals for the sections 2.3 Mehrhoog and 3.3 Emmerich Praest are the next being expected in 2023.

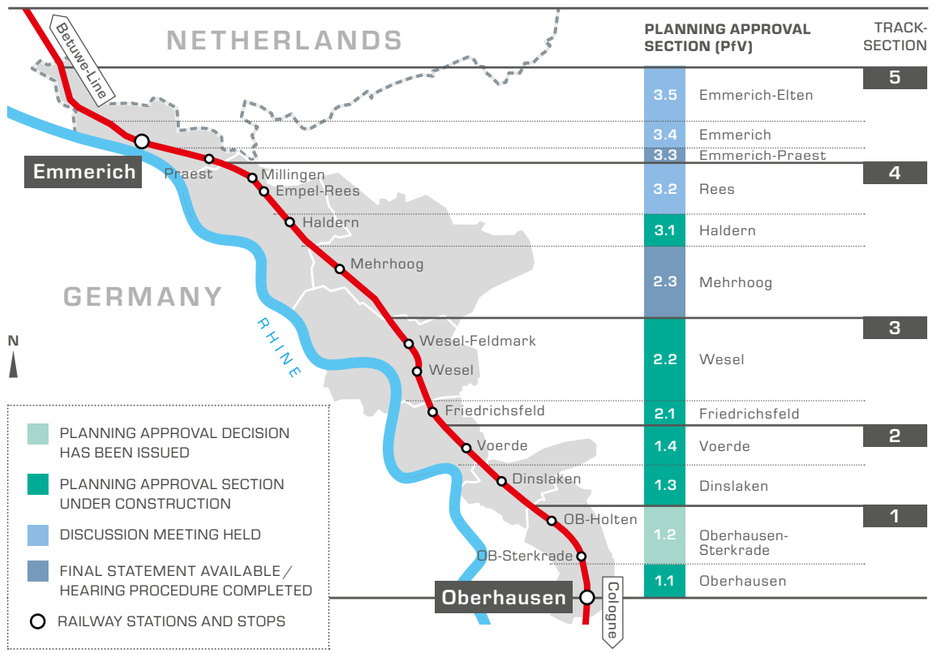
In spring 2023 an information centre for people affected by the building measures as well as for interested persons in Dinslaken, track section 2, will be opened. The information centre will ensure a transparent project communication.

9 *NEW DEVELOPMENTS ON KARLSRUHE – BASEL*

In 2022, the project Karlsruhe – Basel made further progress both in the planning approval process and in the construction works. The project is divided into nine sections and 21 planning approval sections and includes a huge number of subprojects over 15 years.

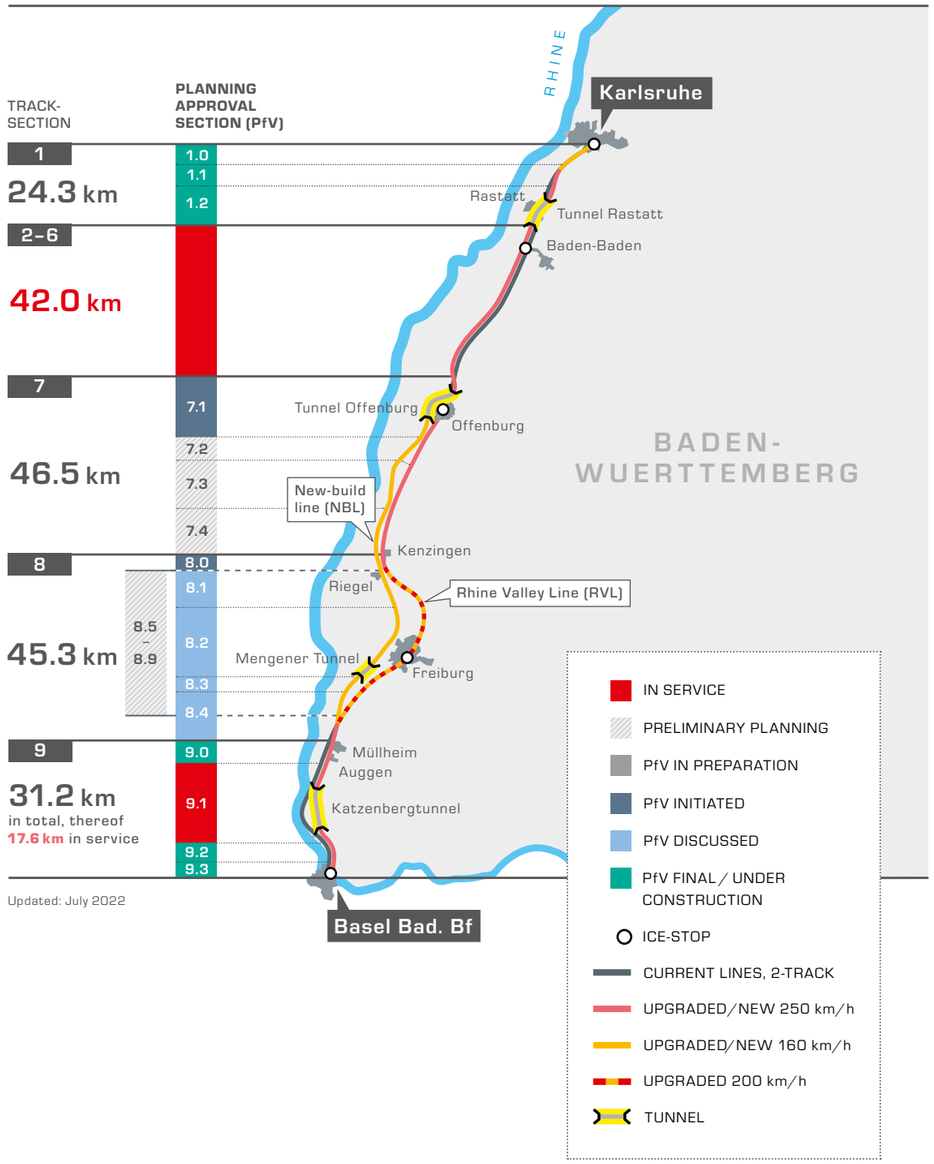
- In Track Section 1 all connections between both tunnel tubes were completed. This was one important requirement for the installation of the solid track which is about to begin. Works to dig out the wrecked (first) drilling machine will be continued. The investigation and arbitration process are still ongoing.
- In Track Section 7 the documents for the approval process of Tunnel Offenburg were submitted. "Early public participation" for the other parts of Section 7 is planned for 2023.

PROJECT EMMERICH – OBERHAUSEN



OVERVIEW MAP

NEW DEVELOPMENTS ON KARLSRUHE – BASEL



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- In Track Section 8 the approval process for all planning approval sections (PAS/PfA/Planfeststellungsabschnitte) is continuing. Although the COVID-19 pandemic caused massive restrictions for the process, especially for gatherings, public discussions could be realized, partly replaced by online consultation. The first planning approval is expected in the upcoming year.

- In Track Section 9, PAS 9.0, construction works continued. The preparations for new barrier-free platforms and for building the track will be continued. The construction works in PAS 9.2 are ongoing, especially the construction of new barrier-free platforms and track works. PAS 9.3 has finished the planning approval in Switzerland and construction works started immediately.

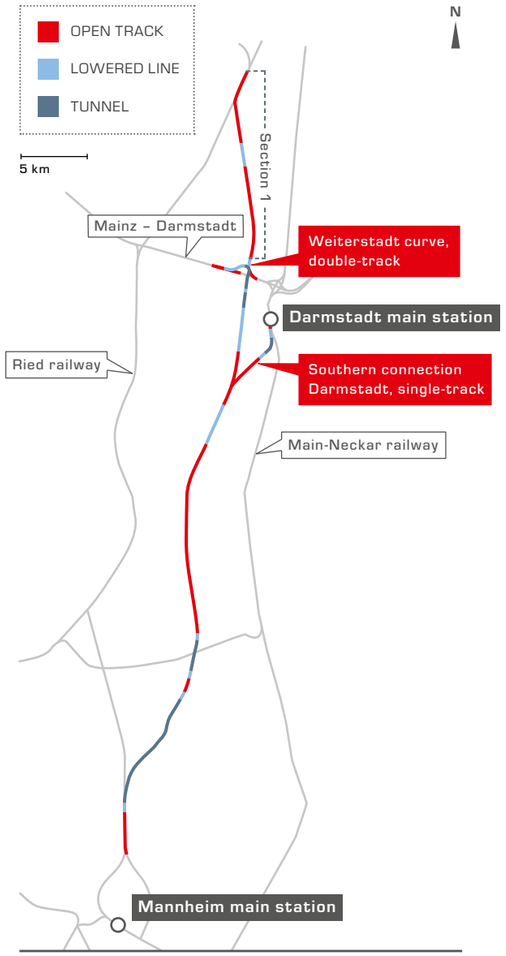
Furthermore, in 2022 the following main deliveries were achieved:
After just over a year of construction, all six new tracks for track group F in Basel were completed. The new tracks will relieve the Rheintalbahn in the future and will be used as shunting tracks. From the border with Germany, the group of tracks runs parallel to the Rhine Valley Railway to the Wiesekorridor railway bridge. A drainage system was installed along the six-track shunting yard. In addition, new catenary masts and the majority of the 190 lighting masts have been erected. These are necessary in order to be able to work around the clock in the train shunting system. Among other things, trains are put together there, pulled by locomotives and cleared through customs.

10 *NEW FRANKFURT – MANNHEIM LINE*

The new line from Frankfurt to Mannheim is a central link in Deutsche Bahn's high-speed network. It closes the gap between the two ICE connections Cologne-Rhine/Main and Mannheim-Stuttgart. The two existing lines, Riedbahn and Main-Neckar-Bahn, will be relieved by the new line and the local and long-distance transport offer in the region will be significantly improved. At the end of 2020, the preferred variant for the new Frankfurt-Mannheim line was determined. The route identified had proven to be the best in a comparison of more than 30 variants.

Since 2016, the Participation Forum, with around 100 representatives of all interest groups from politics, the environment and the public, has been involved in the planning of the new railway line. The Forum played a key role in the discussion and evaluation of the more than 30 variants of the route. The next step is to design the preferred variant and optimize it with regard to the requirements of the region. To this end, committees have been set up with the members of the Forum to draw up the regional requirements for parliamentary referral. Parliamentary referral is scheduled for 2024.

NEW FRANKFURT – MANNHEIM LINE



At the end of 2021, the planning approval documents for planning approval section 1 from Zeppelinheim to the Darmstadt northern link were submitted to the Federal Railway Authority. In October 2022, the project initially withdrew the application for plan approval. The documents need to be updated, partly because the new 2030 train count forecast of the Deutschland-Takt is available. The withdrawal of the application does not affect the decision on the route and the other sections of the new line. DB plans to submit the planning approval decision for planning approval sections (PFA) 2 and 3.1 (Weiterstadt to Pfungstadt) as well as PFA 3.2 (Pfungstadt) and PFA 4 (Gernsheim to Einhausen) to the Federal Railway Authority in 2024/2025. Preliminary planning for planning approval section 5/6 (Einhausen to Mannheim-Waldhof) is to be completed by the end of 2023.

11 *COLOGNE – DORTMUND: INFRASTRUCTURE EXPANSION FOR RHEIN-RUHR-EXPRESS*

The Rhine-Ruhr region is the most populous metropolitan region in Germany and is one of the five largest metropolitan areas in Europe. The railway capacities on the core routes between Cologne and Dortmund are exhausted, affecting not only RFC Rhine-Alpine. In 2022, the expansion of the Rhein-Ruhr-Express (RRX) between Cologne and Düsseldorf has taken another hurdle, expanding the railway line between Düsseldorf-Reisholz and Wehrhahn from four to six tracks.

BLS Cargo train passing Rümlingen in the Canton of Basel-Landschaft.

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Josef Doppelbauer congratulates Ulrich Kohlenberger, the project manager ETCS Corridor Rhine-Alpine at DB Netz AG, after handing over the positive decision report in the presence of guests, such as Matthias Ruete, ERTMS Coordinator

12 *ETCS IN GERMANY ON RFC RHINE-ALPINE*

In 2022, the main outcomes of ETCS rollout of the project Corridor Rhine-Alpine have been:

1. **Placing in service of the L2 installation between Darmstadt Süd and Hemsbach**
   The line section is controlled by a Radio Block Centre (RBC) in Darmstadt-Eberstadt. The project was completed on time in December 2022. Commercial service started in the frame of the yearly timetable 2023.

   After completion of the hardware installation, the testing and commissioning phase had to be completed successfully. This phase included test runs with RFC Rhine-Alpine dedicated vehicles, fault analysis and troubleshooting. In the end, the required documents and certificates (including the proof of safety) were submitted to the NoBo for the TSI declaration of conformity. All the above-mentioned documents were also submitted to the NSA to achieve the final approval for entry into commercial service.

   In parallel, an application for Trackside Approval was introduced for the first time in Europe for ETCS L2 to the European Union Agency for Railways (ERA). The procedure was successfully completed, and a positive decision report was handed over by Josef Doppelbauer (managing director of the ERA) at Innotrans in September 2022.

2. **Haltingen – Freiburg – Offenburg – Karlsruhe**
   - A hardware and software upgrade to the fully ETCS L2-capable control and operations system (LBS) 6.1 was carried out in the ESTW sub-centres Freiburg and Buggingen
   - Start of the ETCS L2 test runs between Haltingen and Freiburg
   - Start of the construction works for new electronic interlockings in Bühl and Baden-Baden

3. **Development of an Online Key Management**
   On the hardware side three servers have been ordered and implemented in the selected locations. Software development has been started.

4. **Preparation of software upgrade for L1 LS in the node of Weil a. R./Basel Bad. Bf (realisation in 2023).**

5. **The ETCS deployment between the border point Venlo (NL) and Cologne will be completed in 2028.** To realize the ETCS deployment, the interlockings have to be adapted or rebuilt in pieces.

PROJECTS IN SWITZERLAND

13 *IMPROVEMENT BASEL RB*

It is planned to improve the shunting yard Basel; e. g., new parking areas for locos will be constructed and existing sidings will be extended up to 750m. In addition, the overall capacity will be increased. First improvements were completed in 2022, all measures will go live until 2025.

14 *4M CORRIDOR CENERI MOUNTAIN LINE*

The project aims to upgrade the Ceneri mountain line up to 4m profile. Along the about 27 km mountain line several stations, signals and 6 tunnels will be adjusted to fulfil the requirements of the 4m profile. Currently the construction works are ongoing. Go-live is planned for December 2023.

15 *LÖTSCHBERG BASE TUNNEL*

The "partial extension" of the Lötschberg Base Tunnel (2nd tube Ferden – Mitholz) is part of the national "2035 Rail Expansion Step (ES 35)" investment plan, which was approved by the parliament at the end of 2019. The project has been approved by the Swiss Federal Office of Transport (FOT) in June 2022.

In a second step, the FOT commissioned also the project planning for the "full extension" of the Lötschberg Base Tunnel (2nd tube for the whole length of the tunnel). As the partial extension works would lead to an 8-month full closure phase of the tunnel during construction, additional costs for a complete double track connection through the tunnel would be relativized by high indirect costs caused by the closure. The project version has been elaborated in the meantime and is in the finalisation phase.

It is foreseen that the parliament will decide in 2023 whether the "partial" or "full extension" of the Lötschberg Base Tunnel should be implemented. Independent of the decision, first works of preparatory lots will start within the next months. The start of the main construction works is foreseen in 2026 and go live is planned depending on realized version in 2033 or 2034.

UPGRADE TO P/C 80/410 FOR DOMODOSSOLA – SESTO CALENDE AND ARONA LINE

PROJECTS IN ITALY

16 *UPGRADE MILANO – GENOVA LINE*

The first phase of the technological upgrade of the Milano – Genova line between the stations of Pavia and Voghera was completed. This project, which has renewed the interlocking and the layout of the three intermediate stations of the line section concerned, allows to use each track in both directions of the train circulation from Milano to Genova. This makes it possible to better manage disruptions / disturbances of the rail traffic and to better plan for the upgrading/maintenance works (in some cases it is not necessary to close both tracks during TCR). This first upgrading also prepared the rail system for the circulation of 740 m long freight trains. The train length target will be achieved by 2026 thanks to other interventions on the Milano – Genova line.

17 *UPGRADE TO P/C 80/410 FOR DOMODOSSOLA – SESTO CALENDE AND ARONA LINE*

The final design for upgrading the P/C 80/410 loading gauge (semi-trailers and Rolling Highway) of the Domodossola – Sesto Calende (Gallarate)/ Arona (Novara) line was started. This project, co-financed by the Swiss Government on the basis of an international agreement between Switzerland and Italy, will be completed in 2028. Thanks to this project, all the main railway lines for freight traffic between Switzerland and Italy will have the same parameters with considerable advantages for a better, easier and coordinated management of disruption and works on both sides.

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KEY TOPICS IN 2022

Despite the challenges, especially due to the Ukraine war and the related energy crisis, we jointly supported the gradual improvement of conditions for rail freight on the Corridor lines and for cross-border traffic. Here are RFC Rhine-Alpine's focus topics for 2022, with joint information from the Management Board and the Executive Board.

POLICY DEVELOPMENTS

The end of the COVID-19 pandemic affected the policy on rail freight transport. As a result of the pandemic EU Member States were entitled to lower railway infrastructure charging under the condition of appropriate compensation to the Infrastructure Manager. In 2022 railway traffic increased substantially as regards passenger transport on the Corridor and this increased usage of railway capacity impacted quality/reliability of transport. The Swiss ministry organised on 13 September 2022 a corridor conference in Bern with high-level stakeholders to discuss the impact of quality on the Corridor and measures to improve the situation. As a follow-up the Executive Board has invited by letter from 20 December 2022 representatives from infrastructure managers, railway undertakings, terminals and intermodal operators to work together in a Quality Core Group to be established early 2023.

The war in Ukraine has also impacted rail transport in Europe in several ways. Refugees have used rail transport to flee Ukraine. The war impacted largely the possibilities for maritime transport via the Black Sea for particularly grain transport. The European Commission has launched therefore the initiative Solidarity Lanes in order to increase the capacity for land transport from Ukraine to Europe[1]. In addition the war has led to a shift in energy demand affecting the railway sector. Imports from coal and fossile fuels are increasing from the ports of Germany, the Netherlands and Belgium with more inland European destinations. In Germany a (temporary) regulatory framework has been introduced to support those energy transports[2]. The developments following the war in Ukraine affected rail freight transport in general and mostly in direction of East – West and vice versa whereas Rail Freight Corridor Rhine Alpine is mostly North-South traffic.

On the legislative developments the negotiations on the TEN-T Regulation were very important in 2022. The EU Council of Ministers approved a general approach for this Regulation on 5 December 2022[3]. For rail freight important elements are the creation of an extended core network by 2040 next to the 2013 decided TEN-T core network for 2030. Implementation of ERTMS, 740m train length and new also the P400 profile are key elements in the Regulation. In addition also axle load of 22.5 t and line speed 100 km/h for freight are mentioned. Decision making on the legislative proposal will continue in 2023 when the European Parliament defines its position.

Important issue in the TEN-T Regulation is also the foreseen merger of the two Rail Freight Corridors Rhine-Alpine and North-Sea-Mediterranean; this is supported by EU Member States. The combination of the 2 North-South directed corridors should further strengthen the already strong interoperable rail freight axis in Europe.

In 2022 also negotiations were ongoing on a broad revision of interoperability specifications (TSI's) including ERTMS upgrades and innovations like Automatic Train Operation and Digital Automatic Coupling. In the context of Europe's Rail a first call for proposals was launched[4].

In the context of international rail transport the European Commission pushed forward its action plan on long distance and cross-border passenger transport, i. a. by launching a call for pilot projects. The platform International Rail Passenger transport IRP sent its 2nd progress report to the EU transport ministers by 2 June 2022[5]. These developments are important because it can lead to competing claims for infrastructure capacities.

[1] COM(2022)217 from 12 May 2022
[2] https://www.gesetze-im-internet.de/ensitrv/EnSiTrV.pdf
[3] https://www.consilium.europa.eu/en/press/press-releases/2022/12/05/trans-european-transport-network-ten-t-council-adopts-its-position-to-ensure-sustainable-connectivity-in-europe
[4] https://rail-research.europa.eu/about-europes-rail
[5] https://www.permanentrepresentations.nl/documents/publications/2022/05/25/2022-progress-report-of-the-ministerial-platform-on-international-rail-passenger-transport

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CAPACITY OFFER

IRG-RAIL STATEMENT ON TTR
For the implementation and application of TTR Smart Capacity Management, IRG-Rail summarized findings obtained and identified outstanding regulatory issues and challenges (e. g. allocation process, commercial conditions).

https://www.irg-rail.eu/download/5/933/220615IRG-RailStatementonTTRofrelevanceforcross-borderIAfinal.pdf

BNetzA DECISION TO WAIVE NOTIFICATION
At the suggestion of DB Netz AG, the Bundesnetzagentur, has initiated an ex officio administrative procedure to examine a possible future waiver of notifications of intended train path designations within the meaning of Article 14 (3) of Regulation (EU) No.913/2010 on 07.03.2022.

With decision of 25.05.2022, the initial decision of the Bundesnetzagentur from 07.01.2018 to waive notification pursuant to § 72 sentence 1, no. 6 ERegG (railway regulation law) was extended. For the working timetable periods 2024 to 2028, the Ruling Chamber waives formal notification and thus the ex-ante approval of the offer of pre-arranged train paths (PaP) on the rail freight corridors crossing Germany by the regulatory body.

https://www.bundesnetzagentur.de/DE/Beschlusskammern/1_GZ/BK10-GZ/2022/2022_0001bis0099/BK10-22-0017/BK10-22-0017_Z_Antrag_BKV.html

TEMPORARY CAPACITY RESTRICTIONS

In 2022, the pilot of using the TCR Tool was continued in order to help RNE with the development of this tool.

Bi- and trilateral coordination to mitigate the impact of TCRs has taken place intensively. There is a high need for this as the number of TCRs will increase in the upcoming years. In 2022, the coordination of TCRs between RFC Rhine-Alpine and RFC North Sea-Mediterranean was started to offer better re-routing possibilities for upcoming projects in 2024 and 2025.

In 2022 the RAG approached the Corridor to support them in the preparation of a re-routing via France, due to a total closure of the principal line at Rastatt in 2024. DB Netz coordinated the timetable topics with SNCF Réseau. The RFC and RUs with support from the ExB focused on the operational aspects of this re-routing.

INTERNATIONAL CONTINGENCY MANAGEMENT

In 2022 no incidents occurred on RFC Rhine-Alpine that classified as an international contingency management (ICM) case. Nevertheless, the RFC team was involved in ICM cases on RFC North Sea-Baltic (17 November to 12 December 2022) and RFC Atlantic (7 and 8 December 2022).

Additionally, the Network of Executive Boards of the RFCs started an initiative to assess if the ICM handbook offers additional value to the legal frameworks of the EU and the Member States. Therefore, experts of the IMs looked back on three major incidents in 2020 and 2021 and

double-checked their conclusions with the RAG. The ExB and the NExBo will draw their final conclusions in 2023.

For 2023 the RFC team prepares the next simulation of the ICM processes. For the first time since the introduction of the ICM handbook, the focus will be on the processes in timetabling and capacity management, and less on operations.

TRAIN PERFORMANCE MANAGEMENT

The working group TPM met three times in 2022. The last meeting could finally be held physically again. At this time also the lead of the group was transferred from Alessandro Fattorini (BLS/EEIG), who left the railway business, to Alexander Paulus, the BLS representative in the Group. Regular telcos supported the coordination within the working group and in addition the connected Bilateral Working groups at some borders.

Main task during the year was to carry out another analysis of overall traffic and train figures based on RNE TPM reports. The result was confirming mostly the former evaluations. Punctuality losses occur mainly at the known bottlenecks around the nodes of Köln, Frankfurt and Mannheim, on the densely used line stretches between Mannheim and Basel - where frequent temporary capacity restrictions accentuate the situation – and at borders. Deeper look into insufficient departure punctuality figures and border delays showed that this is often in context with the problems within the overall network capacity and delays out of various sometimes smaller issues accumulating effects. Turnaround delays and the high complexity of connected services could often only be avoided with an almost not affordable provision of reserve staff and additional rolling stock or much more costly production concepts.

Nevertheless, some planning inconsistencies could be identified and partly solved or improved in collaboration with the involved partners. Other inputs were considered for timetable change 2022/2023.

To find more sustainable solutions, as long as quality is impacted by the fact that the missing additional capacity is still under construction and these construction works further reduce the already available one, is quite difficult. On short notice a higher effort in planning and coordination could help to find single improvements for specific situations. Furthermore, the TPM Team and other involved parties may search for possible adaptions of processes to better cover this temporary situation. Instead of new detailed analysis of a widely known situation, the working group TPM wants to head in this direction, integrating existing activities of the different bilateral cross-border working groups and planned activities started by the Executive Board of RFC Rhine-Alpine. In this context also the missing working groups for some borders shall be established.

Another boost from operational side can be expected by the activities from DB Netz to extend the Quality Circle Operations (QCO) on corridor level and to create the “Operative Verkehrssteuerung” (OVS – operational traffic steering) on the Corridor.

Furthermore, working group TPM members are also taking part in RailNet Europe (RNE) projects concerning “European Traffic Management” (ETM) and “Railway Collaborative Decision Making” (RCDM). The close cooperation promotes the acquisition of knowledge both on the Corridor and on the European level.

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ERTMS DEVELOPMENTS

ERTMS EXPERTS PLATFORM

In 2022, the cooperation on Corridor level continued as planned. Despite the fact, that Corona requirements were easing over the course of the year, all meetings were held online or in a hybrid mode.

Participants have remained the same. Nick Scherping has joined DB Netz as a representative for the equipment project in the area west and north-west of Cologne to the border with Belgium near Aachen-West and Aachen-South and the Netherlands between Kaldenkirchen and Venlo.

The following activities and achievements can be pointed out:

- Support of the ERTMS task force in the preparation of the agenda and contribution to specific topics
- Regular reporting to the ERTMS task force on the status of ETCS deployment progress along the Corridor
- In the second half of the year the updating and publication of the deployment information was affected by a revision of the L1 LS strategy at DB Netz. The process and coordination with the ministry was not yet completed by the end of the year. Therefore, updates of the RFC Rhine-Alpine ETCS deployment overview and the ERTMS information on the RNE Customer Information Platform have been postponed to 2023.
- In March 2022, one online meeting was held with RUs and vehicle owners about the expected schedule and type of ETCS installations. A follow-up has also been postponed to 2023 due to the revision of L1 LS deployment in Germany
- Support of workshops on trackside approval at the ERA ERTMS conference in Valenciennes in April
- Update of the risk database, creation and communication of an ETCS risk report. Risk evaluation and reporting will be continued in 2023
- Development of a proposal how to integrate and manage information on the radio system in CIP
- Further investigation and discussion on Task Force level how to fulfil the EDP requirement for ETCS cross-border agreements, based on a pilot on the border section Aachen Hbf (DE) – Welkenraedt (BE). In this context, determination of critical elements on the border sections, such as variable values, and addressing them to the ERTMS User Group (request for comment)
- Ensuring the transfer of information between different bodies and stakeholders, e. g., by representing RFC Rhine-Alpine at meetings of the RU platform of the ERTMS Users Group.

The ERTMS experts platform will continue its work in 2023 based on the work plan agreed with the MB.

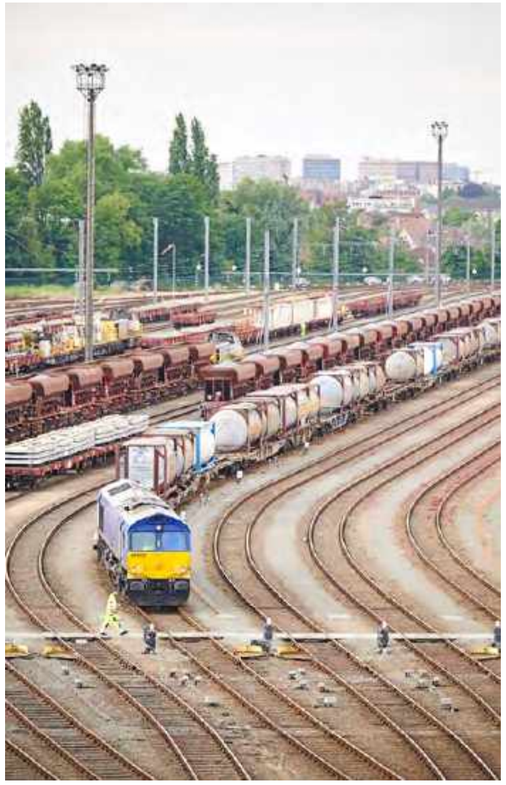
Car transport in the port of Ghent (Gent-Zeehaven)

ERTMS TASK FORCE

In 2022 the ERTMS task force of the Executive Board had four online meetings with participation of DG Move, Ministry, IM and NSA representatives. Johanna Nes (NL MoT) has joined the group of participants as the successor of Peter Brugts, who retired. Peter Brugts supported ERTMS roll-out on the Corridor since the beginning in 2006.

The main activities of the task force in 2022 included:

- Review of the ERTMS deployment overview
- Further monitoring of the vehicle authorisation process. Member States reported on their strategies and projects on B3 OBU equipment. The key points are
  - Project established to equip vehicles for international traffic in the Netherlands
  - Need to be equipped with ETCS B2 or B3 in Belgium by the end of 2025
  - Pilot B3 equipment for Stuttgart 21 in Germany
  - Basic requirement B3 for new vehicles in Switzerland
  - In Italy, RFI plans to invest a total of 13 billion Euro into making ERTMS the standard across its entire network by 2036; Vehicle equipment program from 2023 as part of the national ERTMS strategy. This is being made possible via state and compatible economic incentives, which currently cover roughly 40 % – 300m Euro – of the cost. The projects are being partially financed under the Italian government's National Recovery and Resilience Plan (PNRR).
- Supporting the IMs in improving the Trackside Approval process
- Regular considerations on the CR 1370 for L1 LS in 2022 and how this can be solved for the existing TSI (short term) and the upcoming TSI. This is an obvious issue because many vehicles with national requirements (NNTRs) have already been approved in Switzerland and Germany, and there is no amicable solution foreseeable with the proposal of ERA.



Railway yard in Gent-Zeehaven

- Discussion and support in the development of a harmonised approach regarding the ERTMS cross-border agreements and a proposal to reduce the requirements from the EDP
- The risk report 2022 of the ERTMS experts platform presented in August was very much appreciated. The risk analysis is to be continued in 2023, as it is seen as a good tool for evaluating the state of play of the introduction of ERTMS, deriving further initiatives and measures and also as information for DG Move on the problems on project level.
- Update of the interoperability overview in coordination with the NSAs.

For 2023, the task force has agreed on tasks and objectives and presented them to the ExB, who agreed. Four meetings are planned to work on these tasks.

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INFRASTRUCTURE AND CAPACITY

In 2022 RFC Rhine-Alpine took up the questions raised by the customers/railway undertakings during different meetings and in the user satisfaction survey. The comments/questions mentioned in the USS were answered in detail including a referral for issues out of scope of the RFC and were discussed during a meeting of the Railway undertaking Advisory Group. Furthermore, the Infrastructure & Terminal working group updated the overviews of and, for certain infrastructure parameters, the development of these parameters. The parameters analysed were the intermodal gauge, the profile and the maximum train length.

MARKETING AND CUSTOMER RELATIONS

CONNECTING EUROPE DAYS IN LYON

In 2022, the European Commission hosted the Connecting Europe Days in Lyon, formerly known as TEN-T Days. RFC Rhine-Alpine took part in the exhibition with a joint stand of all Rail Freight Corridors and RNE. The chairman of the Management Board of RFC Rhine-Alpine, Guus de Mol, also participated in a discussion on intermodal transport hosted by Paweł Wojciechowski, European Coordinator for the Rhine-Alpine CNC.

RAILWAY UNDERTAKING ADVISORY GROUP

The main discussions on the Corridor were also present in the RAG of RFC Rhine-Alpine in 2022.

The plans of the Infrastructure Managers to improve the available capacity and performance of the Corridor lines were presented by the Infrastructure & Terminals working group and discussed with the participants of the RAG.

More in depth was the discussion on Temporary Capacity Restrictions, that comes along with the improvement activities. TCRs were discussed on several levels from strategic questions like compensation for deviations from the TCR planning by the IM in Switzerland, over the concrete actions for the next two years to the operational handling of a total closure of the Rhine valley line in Rastatt in the summer of 2024. Especially the last example showed the strength of RFC Rhine-Alpine, as in a conjoint approach of DB Netz, the RAG, the ExB and the MB all necessary French stakeholders were approached to prepare a deviation through France of the intermodal trains. These activities will be followed up in 2023.

The initiative to improve the communication between the two RAGs of RFC Rhine-Alpine and RFC North Sea-Mediterranean continued in 2022. It is noticeable to see how the discussions improved and joint initiatives are being discussed. Joint RAGs will be followed up in 2023 for the two RFCs.

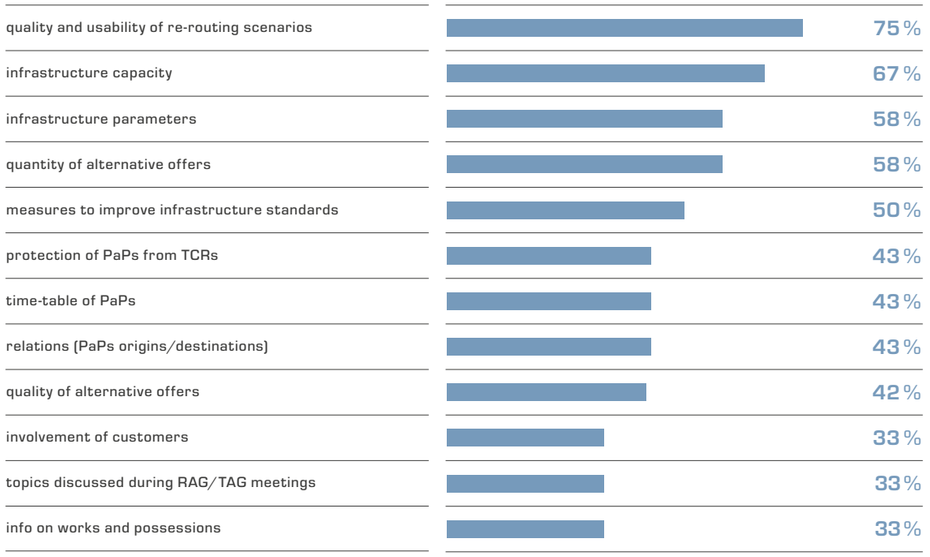
TERMINAL ADVISORY GROUP

As in the previous year, the TAG was organised together with RFC North Sea-Mediterranean. During the meeting updates on the development and performance of the corridor traffic were presented and discussed, taking relevant circumstances, like the war in Ukraine into consideration. The meeting was topped off by a presentation of the port of Marseille and its perspective for the next years. Additionally, two small webinars were held looking on TIS for Terminals.

USER SATISFACTION SURVEY

The User Satisfaction Survey 2022 was conducted for the second time jointly with all eleven Rail Freight Corridors. The questionnaire was the same as in the previous year, with interviews offered additionally to discuss points of improvement in more detail. The survey was conducted between September and October 2022. The overall satisfaction of the users of RFC Rhine-Alpine decreased to 76 % (compared to 92 % in 2021). The efforts of the Corridor were recognised, e. g., with respect to the further development of CIP and the improved communication in the last year. Furthermore, as the good cooperation between IMs is highly valued, wishes for improvement for the cross-border harmonisation of TCRs were addressed. Other points for improvement, similar to last year's survey, mostly refer to infrastructure-related capacity bottlenecks, re-routing scenarios and the quantity of alternative PaP offers. The results of the survey will be analysed in detail and discussed in the Management Board, Working Groups and with stakeholders alike.

THE MOST REQUESTED POINTS FOR IMPROVEMENT ON THE CORRIDOR



CUSTOMER INFORMATION PLATFORM

The Customer Information Platform (CIP) was further developed and improved in 2022. The main achievements were:

- Several developments to improve the user friendliness and an update of the graphical user interface
- General improvements regarding completeness of information on properties and projects
- Harmonisation of uploaded documents along all 11 RFCs
- Start of the work on a common database for RNE applications called Railway Infrastructure System (RIS).

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NSA WORKING GROUP REPORT

NSA CORRIDOR ORGANISATION
The National Safety Authorities (NSAs) of the Rail Freight Corridor Rhine-Alpine and Scandinavian-Mediterranean (ScanMed) are organised as "NSA Corridor Group", which deals with NSA related topics on both corridors in its respective NSA Working Groups.

Since their establishment, the tasks of the NSA Working Groups have significantly changed. Originally, there was only a limited number of European legislation with regard to authorisations, which changed in particular by introducing the 4th Railway Package. In the past, the task of the NSA Working Groups was to coordinate the authorisation of specific cross-border vehicles or cross-border infrastructure projects between the different NSAs on the corridors. With today's European legislation, mainly due to the 4th Railway Package and the new role of ERA as authorising entity for vehicles and for ERTMS trackside approval, the main task of the NSA Working Groups today is to coordinate national checks during the authorisation procedures conducted by ERA.

One of the two main NSA Working Groups is the Task Force Interoperability (TFI). It supports vehicle authorisation projects concerning vehicles operating on the corridor, whose approval process is usually managed by ERA.

The second NSA Working Group is the NSA RFC Rhine-Alpine + ScanMed Working Group usually abbreviated as "NSA WG". This NSA WG is dealing with generic topics in relation to the European legislation and their application, especially with respect to the subsystems Control Command and Signalling (CCS) and Operations (OPE). TFI and NSA WG cooperate, exchange and support each other in concrete projects if required.

At management level, above the Working Groups TFI and NSA WG there is the so-called NSA Steering Committee which governs the whole NSA Corridor Group. The NSA Corridor Group is embedded into the structure of the organisation of RFC Rhine-Alpine. **(see graph p. 49)**

The following sections report about the activities of the NSA Working Groups.

1) NSA WG

The NSA WG develops a common understanding of ERTMS issues in relation to authorisation and implementation on the corridors.

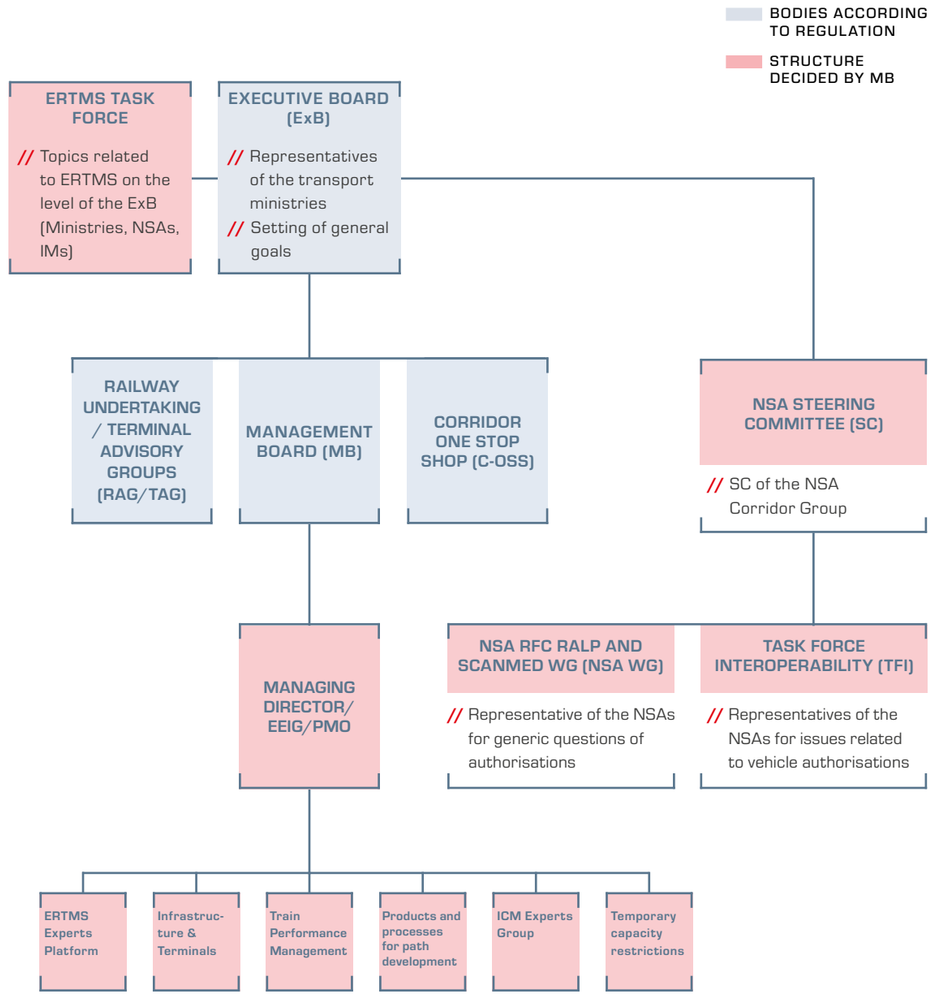
Besides generic topics such as errors, interpretation and handling of legislation, etc. also other topics such as operational issues are dealt with and coordinated with the responsible stakeholders. Issues identified by the group, which cannot be solved on corridor level or might have a broader impact, are addressed to European bodies (often via the ERTMS NSA Network, or in the frame of the TSI CCS Working Party, both organised by ERA).

NSA WG ACTIVITIES IN 2022

CCS TSI REVISION 2022
In 2022 work on the CCS TSI revision was continued in the CCS TSI ERA Working Party until 30th of June, when the recommendation of it was provided to the European Commission. Due to several topics in this final CCS TSI draft, which were still not satisfactorily agreed upon within the sector, discussions on the content of the CCS TSI draft still continued after the recommendation in June. There are still discussions ongoing.

Issues being still discussed are e. g., the deletion of partial fulfilment, the merging of ETCS Level 2 and Level 3 to ETCS Level R, the introduction of Baseline 4, the requirement of "Cold Movement Detection" in retrofitted vehicles, the introduction of a single set of specifications, the transition regimes for mandatory implementation of standardized interfaces and error corrections. The NSA WG is continuously dealing with the CCS TSI drafts provided. This in order to obtain a common understanding on the impact and consequences of those as well as align related comments.

ORGANISATIONAL STRUCTURE OF NSA WORKING GROUP



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NATIONAL TECHNICAL RULES RELATED TO CCS

The NSAs are continuously discussing the NTRs related to CCS that are relevant for vehicle authorisation in order to get a mutual understanding of these rules. Based on this work, trilateral discussions took place, starting with Germany, Austria and Switzerland to explore possibilities to harmonise rules that are similar in two or more countries. The results of those discussions were summarized by and shared within the NSA WG. Each member started to add their rules to the summary. Discussions on those will continue in 2023 encompassing changes within the NTRs due to the new CCS TSI.

HARMONISATION OF DRIVER MACHINE INTERFACE (DMI) TERMINOLOGY

NSA WG (Germany, Austria, Switzerland) providing expert input on harmonising the DMI terminology. ETCS as the European harmonised train control system will offer the possibility to run throughout Europe without the need to switch the train control systems. To promote this goal, it would be helpful from an operational point of view to harmonise also the respective DMI terminology. Operational language usually is the language of the respective Member Sate and even the "same" native language might differ from Member State to Member State, e. g. different German terminology in Switzerland, Austria and Germany. So, the goal is to achieve a specific terminology in one language. A harmonised German translation of the Appendix A of TSI OPE was developed and shall be taken into consideration for the translation of TSI OPE Appendix A with regard to the revised TSI OPE.

CONTINUOUS EXCHANGE OF EXPERIENCE WITH ERTMS VEHICLE PROJECTS

The Dutch ETCS project on retrofitting the Dutch freight locomotive fleet to ETCS Baseline 3 and the Dutch ERTMS project coordinating the ERTMS rollout in passenger rail traffic regularly share updates on their state of play with the NSA WG. The focus is on lessons learned and newly arising issues, e. g., concerning national technical rules and derogation procedures, new specifications upcoming in the CCS TSI Revision 2022 as well as the procedures and responsibilities according to the 4th Railway Package.

COORDINATION OF DEVELOPMENT REVISION TSI

During the performance of the primary working group tasks, coordination also takes place with the WG TSI-OPE Operational Harmonisation (OH). Due to the coherence of regulations within and between both subjects, TSI OPE and TSI CCS, and the WG members that also participate in the TSI OPE OH. This allows rapid and effective tuning to take place and leads to more homogeneous, unambiguous and coherent wording of laws and provisions.

CONTINUOUS UPDATE ON DIFFERENT EUROPEAN ERTMS RELATED WORKING GROUPS

To ensure a wide knowledge of European developments in the field of CCS and ERTMS, we regularly provide input into the work of the following groups:

DB Cargo train at the South portal of the old Gotthard tunnel in Airolo, Switzerland

SBB Cargo International train between Gelterkinden and Tecknau, Switzerland.

Task force Interoperability (TFI), Task Force ERTMS RFC Rhine-Alpine, ERTMS Control Group, Topical Working Group Train Architecture, Operational Harmonization, RISC and also the Steering Committee of Rhine-Alpine and Scan-Med.

This is either done by members of the WG who also participate in one of those groups or after invitation by a representative of these respective groups. Thus, a broad perspective of CCS / ERTMS is achieved by the WG group, helping e. g. in addressing and understanding problems, and in delivering input to the legislators to harmonise legal texts.

OBJECTIVES OF THE NSA WG FOR 2023

According to the annual work plan of the NSA WG for 2023 the group will in particular focus on the following main objectives:

Discussions on application guides for new CCS TSI 2023

- After the finalization of the CCS TSI revision, ERA will focus on the revision of the application guide for the CCS TSI. Therefore, the NSA WG will address topics arising in the ERA working party on TSI CCS regarding the respective amendment of the application guide.

Guidance for projects

- The NSA WG intends to continue guiding CCS vehicle projects with regard to derogation aspects concerning NTRs for ERTMS and Class B systems. It will also continue to identify and share best practices with the sector with respect to CCS authorisation.

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Cross-border interoperability issues

- The NSA WG will tackle issues hampering cross-border traffic related to ERTMS as well as operational problems identified on the Corridor falling under the responsibility of the NSAs.

National technical rules (NTRs) related to CCS

- The NSAs will continue discussing the NTRs in the area of CCS that are relevant for vehicle authorisation. The purpose is to get a mutual understanding of these rules and – if possible – to promote their harmonisation.
- The NSAs will exchange views and experiences in notifying national rules for trackside CCS, as ERA is now asking the Member States to provide national rules on the trackside CCS subsystem, if necessary.

2) TASK FORCE INTEROPERABILITY (TFI)

a) Impact of 4th Railway Package on TFI

The TFI is a Working Group aiming at facilitating the authorisation of vehicles in the networks of Austria, Germany, Italy, the Netherlands and Switzerland.

In June 2019 the 4th Railway Package entered into force: Italy and the Netherlands transposed the Interoperability Directive (EU) 2016/797 and the Railway Safety Directive (EU) 2016/798 of the technical pillar of the 4th Railway Package into national law on that date. Germany transposed both Directives into its national legal framework in June 2020; Austria implemented them in January 2021.

Switzerland, a non-EU Member State, revised its national railway legislation in June 2020 to be also compliant with the principles of the 4th Railway Package.

Therefore, ERA became the authorising entity for international vehicles in the Dutch, German, Italian, Swiss and Austrian networks, and hence gained an active role in the TFI.

Up until June 2019, the five NSAs from Austria, Germany, Italy, the Netherland and Switzerland used cross-acceptance procedures based on the Memorandum of understanding 2007 (D-A-CH-I-NL) to facilitate first and additional authorisations of interoperable vehicles, in continuation of the activities of the previous years.

The 4th Railway Package brought some changes to the TFI. The authorisation process changed from “authorisation for placing into service” to the new concept “authorisation for placing on the market”.

The legal basis for the authorisation for placing vehicles on the market (requirements, process steps, responsibilities, timeframes, evidence) is provided by the Implementing Regulation (EU) 2018/545.

The One-Stop-Shop (OSS), an IT tool governed by ERA shall be used as instrument to file, manage and proceed all applications.

Furthermore, all authorisations for international vehicles are now issued by ERA as authorising entity in cooperation with the NSAs which remain responsible for assessing the notified national technical rules.

For that purpose, the NSAs mentioned above signed formal cooperation agreements with ERA based on Article 76 of the ERA Regulation (EU) 2016/796.

To reflect ERA´s new role as authorising entity the TFI modified its composition and now includes experts from ERA and NSAs as well as Infrastructure Managers of the Member States mentioned above who all provide their specific experiences in vehicles, the authorisation process and the interfaces between vehicles and infrastructure to the group. Thereby, the cooperation between ERA and the NSAs will be strengthened.

Beyond that, the TFI also invites representatives of vehicle manufacturers to the meetings to discuss and solve concrete issues occurring in the authorisation of vehicle projects on the Corridor.

The TFI provides an excellent platform for applicants to clarify general items with regard to the process of placing vehicles on the market and with regard to the operation of authorised vehicles in the corridor countries.

As authorising entity, ERA now has an active role in the TFI and exchanges documents and information with the NSAs and other participants of the meetings.

Inauguration of the renovated SBB train station in Mendrisio, Canton of Ticino in Switzerland.

Shunting yard in the port of Zeebrugge

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BLS Cargo train on the Gotthard line in Switzerland.

b) The current tasks of the TFI in 2022 have been as follows:

Harmonising the content of ERA TV and the content of authorisations especially with regard to restrictions and conditions of use

- Including waiving restrictions from former authorisations (see clarification note from ERA 1209-70, dated 08.04.2020),
- Depending on national legislation and formulations in the authorisations, there are differences between Member States,
- There exists a huge variety of how ERA TV types have been entered in ERA TV, so far. Furthermore, several NSAs revealed a need for clarification / improvement concerning the use of ERA TV.

Notification according to Article 16 (4) of Regulation (EU) 2018/545

- In a huge number of cases in which the entity managing the change is not the holder of the vehicle type authorisation the changes will be notified to the authorising entity.

Management of authorisation of a vehicle after small changes, according to Article 15 (1), (b) of Regulation (EU) 2018/545

- This case is relevant if authorised vehicle types and/or vehicles undergoing some design modifications are classified by the entity in charge of modification as small changes, according to Article 15(1), (b) of Regulation (EU) 2018/545. When the new technical dossier impacts the ERA TV recorded data (e. g., update of CE certification, ...), an update of the relevant ERA TV parameters is required (see clarification note from ERA 1209-066, dated 13.02.2020). Impact of this topic is different for interoperable vehicles or "single state" vehicles, regarding the authorities responsible for the management of the update.

Short cross-border vehicle authorisation

- This task is ongoing between NSAs / Member States, currently on the basis of existing infrastructure manager agreements.

TSI non application / derogation

- This topic becomes relevant if an applicant requests for a non-application of or a derogation from TSIs, e. g., by using the transition phases regulated in the TSIs (non- application).
- Main discussion topics have been related to possible harmonised provisions in order to minimise impacts in case of different results for an application submitted to each relevant Member State by an applicant for an interoperable project.

Continuous application of existing cross acceptance agreements for network-wide authorisation projects as long as Art. 14 (10) of Directive (EU) 2016/797 has not yet been implemented

Authorisation process for additional areas of use and / or change including entry into ERA TV for vehicles that were authorised before the 4th Railway Package

- See also clarification note from ERA 1209-100, dated 19.01.2021.

Reference Document Database (RDD)

- Cleaning up of notified national technical rules (NNTRs) in RDD is ongoing,
- Open: technical opinions from ERA on the NNTRs submitted by the Member States,
- RDD will be maintained until the new single rules database (SRD) is fully placed in service,
- Current state of NNTRs is published at the NSAs` websites.

ERTMS National Implementation Plans

- Exchange of experiences from the involved TFI authorities on the ongoing ERTMS National Implementation Plans which introduce specific issues related to technical solutions and/or rules application and require a harmonized coordination with ERA for the vehicle authorisations.

Joint tasks / issues from TFI and NSA WG: 4th Railway package issues regarding (ERTMS-) vehicle authorisation

- Permanent dialogue between CCS experts from infrastructure managers and NSAs` experts in the NSA WG,
- ERA, TFI and NSA WG are ready for processing real CCS vehicle projects.

Loading of a container onto a rail wagon.

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ESC / RSC check management in different Areas of Use (impact on service / test authorisations):

- Exchange on the ongoing processes to manage ESC / RSC checks required at vehicle's type authorisation level to allow services on lines where new ERTMS on track subsystem has been / will be implemented and activated, describing the approach of own ERTMS national implementation plans, coordination with Infrastructure Managers, critical tasks solved / to be solved,

Variant / Version management – limitations in the 4th RP for step-by-step modifications:

- Exchange of information related to management of authorisations / registration of vehicle's type variant / version and the impact of provisions in Regulation (EU) 2018/545 related to the principle interdicting to refer to authorised variants or registered versions as authorisation basis for a new derived variant / version of the type, on the step-by-step modifications approach applied by industries to develop their projects.

Authorisation's Condition for Use at subsystems / vehicle level:

- Exchange of information related to management of suitable list of restrictions / limitations applicable to a vehicle's type and to refer in the related authorisation

3) MISCELLANEOUS: CONTRIBUTION TO ERA ERTMS WORKING GROUPS

Since the NSAs of RFC Rhine-Alpine also participate in the ERTMS Working Groups organised by ERA, the NSAs coordinate their views in order to achieve - if possible and appropriate – a common corridor position in the respective working groups. Furthermore, ERTMS issues occurring on RFC Rhine-Alpine can be address to ERA, which is the system authority for ERTMS and an authorising entity in all corridor countries.

DB Cargo train between Gurtnellen and Wassen on the Gotthard line in Switzerland.

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ANNEX:
LIST OF ABBREVIATIONS

AB ..... Allocation Body
ABS..... Ausbaustrecke (upgraded line)
B3 ..... Baseline 3
BNetzA ..... Bundesnetzagentur (German regulatory body)
CEF..... Connecting Europe Facility
CCS..... Control Command and Signalling
CE..... Conformité Européenne (European Conformity)
CID..... Corridor Information Document
CIP ..... Customer Information Platform
CNC ..... Core Network Corridor
C-OSS..... Corridor One-Stop-Shop
CR ..... Change Request
DG MOVE..... EC's Directorate-General for Mobility and Transport
DMI..... Driver Machine Interface
EDP..... European Deployment Plan
EEIG..... European Economic Interest Grouping
ETM ..... European Traffic Management
ERA..... European Union Agency for Railways
ERA TV..... European Register of Authorised Types of Vehicles
ERegG..... Eisenbahnregulierungsgesetz (railway regulation law)
ERTMS..... European Rail Traffic Management System
ESC..... ETCS System Compatibility
ESTW ..... Elektronisches Stellwerk (electronic signal box)
ETA ..... Estimated Time of Arrival
ETCS..... European Train Control System
EU..... European Union
ExB ..... Executive Board
FOT ..... Swiss Federal Office of Transport
GSM-R..... Global System for Mobile Communication, subset Rail
ICE..... InterCityExpress
ICM ..... International Contingency Management
IM..... Infrastructure Manager
IRG-Rail..... Independent Regulators' Group - Rail
IRP ..... International Rail Passenger (Platform)
IWW ..... Inland Waterways
KPI ..... Key Performance Indicator
L1 FS ..... Level 1 Full Supervision
L1 LS..... Level 1 Limited Supervision
LBS ..... Leit- und Bediensystem (Control and operating system)
MB ..... Management Board
MoT..... Ministry of Transport
NBS ..... Neubaustrecke (new line)
NExBo ..... Network of Executive Boards
NNTR..... Notified National Technical Rule
NSA ..... National Safety Authority
NoBo..... Notified Body
OBU..... On-Board Unit
O/D..... Origin/Destination
OPE..... Operations
OVS..... Operative Verkehrssteuerung (operational traffic steering)
PaP ..... Pre-arranged Path
PAS..... Planning Approval Section
PCS..... Path Coordination System
PfA..... Planfeststellungsabschnitt (approval section)
PIM ..... Programme Implementation Manager
PMO..... Programme Management Office
PNRR..... Piano Nazionale di Ripresa e Rsesilienza (Italy's recovery and resilience plan)
R-CDM..... Railway Collaborative Decision Making
RAG..... Railway undertakings Advisory Group
RBC..... Radio Block Centre
RC ..... Reserve Capacity
RFC ..... Rail Freight Corridor
RDD ..... Reference Document Database
RIS ..... Railway Infrastructure System
RISC..... Rail Interoperability and Safety Committee
RNE..... RailNetEurope
RRX..... Rhein-Ruhr-Express
RSC..... Radio System Compatibility
RU ..... Railway Undertaking
RP ..... Railway Package
SC..... Steering Committee
SRD..... Single Rules Database
SY..... Shunting Yard
TAG ..... Terminal Advisory Group
TCR ..... Temporary Capacity Restriction
TEN-T..... Trans-European Network - Transport
TEU ..... Twenty foot Equivalent Unit
TFI..... Task Force Interoperability
TIS..... Train Information System
TPM ..... Train Performance Management
TSI ..... Technical Specifications for Interoperability
TT..... Timetable
TTR ..... Tiemtable Redesign for Smart Capacity Management
TVS ..... Schweizerische Trassenvergabestelle (Swiss Allocation Body)
USS..... User Satisfaction Survey
WG..... Working Group

IMPRINT

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Concept
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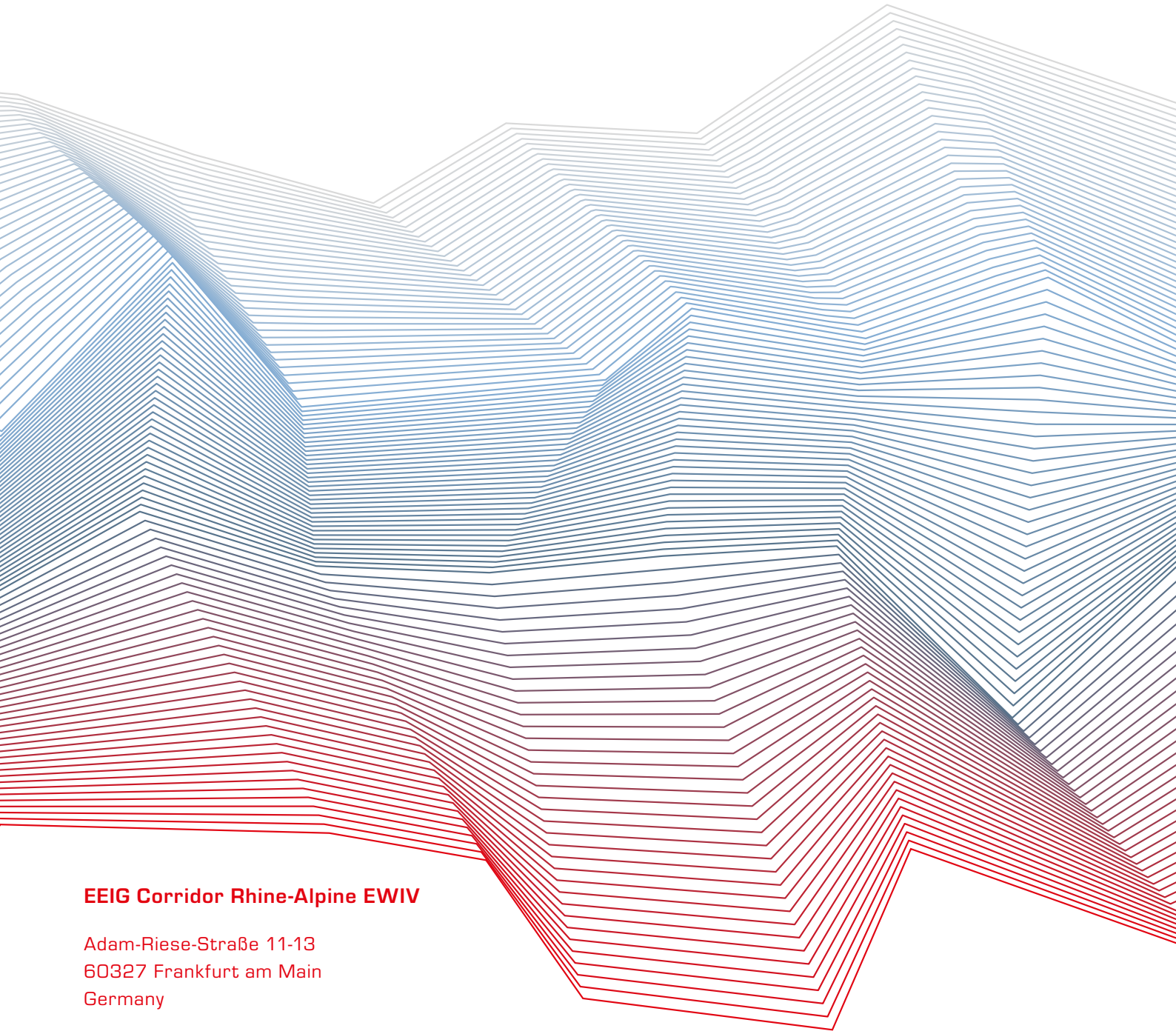

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