



ANNUAL REPORT 2018

RailNetEurope

RNE ANNUAL REPORT 2018

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FOREWORD BY PRESIDENT AND SECRETARY GENERAL

2018 and the beginning of 2019 have again been busy periods for RailNetEurope (RNE) and its members. Ongoing activities and new developments within the international business of the Infrastructure Managers (IMs), Allocation Bodies (ABs) and Rail Freight Corridors (RFCs) that make up RNE, have brought with them some major challenges.

- Together with Forum Train Europe (FTE) we have made several important steps in the 'Redesign of the International Timetabling Process' (TTR). In 2018, three pilot lines on European Rail Freight Corridors have started to implement and test the first innovative TTR components to better plan and allocate capacities for timetable period 2020. Additionally, a first check of the legal framework has been conducted and a new IT landscape has been defined. Also, TTR has seen activities in many other business fields, such as the temporary capacity restrictions (TCRs) and commercial conditions. These achievements were possible only thanks to the massive participation of many stakeholders within the sector, whom we wish to thank for all previous and upcoming support.
- Another topic that we would like to mention is the strong involvement of RNE in the follow-up of the Rotterdam
 Sector Statement. RNE is a key player in seven of the top ten

priority projects (eight if already counting the new additional priority project 11, International Contingency Management - ICM).

- We would also like to highlight the new Language Programme. The language barrier is an ongoing topic within the railway industry and the RNE Language Programme was launched in cooperation with other sector players to cover different operational communication areas with the goal of decreasing barriers and lowering costs. During 2018, the main focus was on IM-IM communication at national level and IM-RU operational communication.
- One of the biggest challenges in rail transport continues to be good forecast data for train or wagon arrivals. This forecast data must be exchanged between the partners and also include first and last mile information. RNE has been working on standardising the quality measurement of ETA data and simplifying data sharing.
- With several thousand train requests and hundreds of users per day, the Train Information System (TIS) is by far the most used of RNE's systems. A user satisfaction survey conducted in 2018 proved that the system meets customer requirements on a high level and provides excellent support to the international rail sector.

All of this has been and continues to be possible only thanks to the strong and constructive collaboration we are fortunate to enjoy with our business partners - especially CER, CIT, EIM, ERFA, FTE, IRG-Rail, PRIME, The Agency, UIC, UIRR - and we would like to thank them warmly. Also, we would of course like to thank the representatives of our members, the Infrastructure Managers (IMs), Allocation Bodies (ABs) and Rail Freight Corridors (RFCs), as well as the RNE Joint Office staff, for their continuous commitment and support on management and expert level.

In particular, we would like to take this opportunity to thank Mr Mikael Eriksson, who served on the RNE Managing Board for two years (until 29 May 2019), for his services. We would also like to thank Ms Claire Hamoniau, who served for several years (until 5 December 2018) as RNE internal auditor, for her great contribution.

In 2018 (effective 01.01.2019) RNE was also joined by a new member, the Greek Infrastructure Manager OSE, who we would like to welcome warmly.

Financially, the budget commitments in 2018 were met in full. The accounts of the association demonstrate sound economic and financial results, which was testified by internal and external auditors. In this context we would like to thank the European Commission for their steady support through providing funding and pushing our activities.

We hope that you will find this annual report enjoyable and informative and we look forward to meeting future challenges together with our partners and to continue improving international rail services throughout Europe.



HARALD HOTZ, RNE PRESIDENT



SECRETARY GENERAL

2 ASSOCIATION

- General Information
- Managing Board
- Joint Office
- Members & Network
- RNE KPI Management
- RNE Projects & Activities
- Sector Statement Group

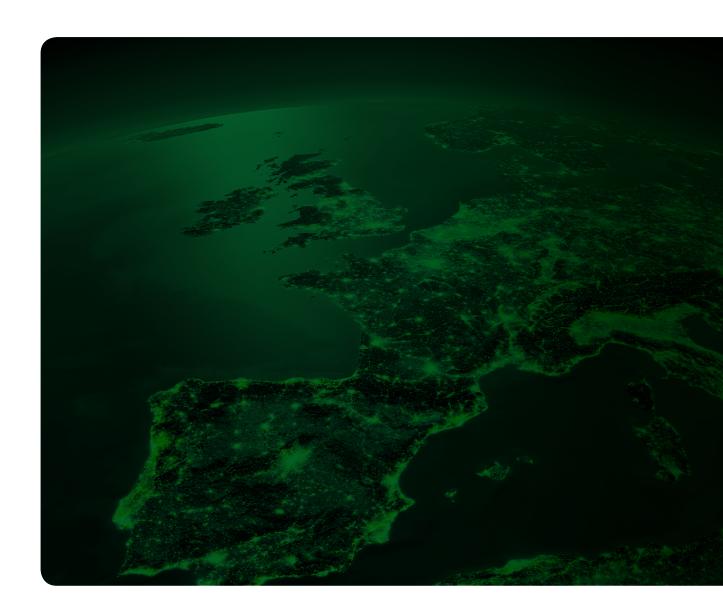


Approach & Structure

Approach

RailNetEurope was set up in 2004 to help meet the challenges faced by the international rail sector. This was to be achieved by providing solutions that benefit all RNE Members as well as their customers and business partners. RNE facilitates the operational international business of its members and provides support regarding compliance with the European legal framework. This entails developing harmonised international business processes, templates, handbooks, and guidelines. In summary, RNE's mission is to help its members meet the challenges of the rapidly-changing railway sector in Europe and to promote international rail traffic.

Over the years, the European Commission has come to value our activities and take a keen interest in our efforts, and we benefit from European Union funding. The TEN-T EA / INEA (Innovation and Networks Executive Agency) has provided much-needed funding, for which we are very grateful. In addition, RNE has become a member of the PRIME Platform, where the dialogue between the European Commission and the Infrastructure Managers is being enhanced.





RNE Structure

RailNetEurope has adopted the typical structure of an international organisation.

At least twice a year, the RNE General Assembly makes decisions based upon Managing Board meetings that are held about five times a year, which also supervises the work of all RNE ad-hoc and standing groups. The day-to-day work of these groups is coordinated and managed at the RNE Joint Office in Vienna, which is also in charge of the administration, finances and communication of the Association.

Today the RNE Working Groups deal with the following business areas on a permanent basis:

- Sales & Timetabling
- Traffic & Train Performance
 Management
- Rail Freight Corridors
- Network Statement & Corridor Information Document
- Legal Matters
- Temporary Capacity Restrictions

In 2014, it was decided to set up High Level Groups (HLGs) in the following areas: Rail Freight Corridors, IT, Sales & Timetabling, and Traffic Management. The High Level Groups have been tasked with providing input into RNE strategy, proposing projects and stimulating the implementation of project results as a first escalation level.

General Assembly **GENERAL ASSEMBLY** European Infrastructure Managers / Allocation Bodies / RFCs Managing Board **MANAGING BOARD** President / Vice Presidents Joint Office **JOINT OFFICE** Secretary General High Level Groups Sales & Timetabling **Traffic Management** Working Groups Network Statements Legal Matters Performance & Sales & Timetabling **Traffic Management** CIDs Corridor Management **COORDINATION PLATFORM FOR RFCs**

Managing Board



Today the RNE Managing Board (MB) consists of Harald Hotz, RNE President, and the following RNE Vice-Presidents:

Ann Billiau (in charge of IT and Train
Performance Management), Mirosław
Kanclerz (in charge of Network Statement
& Corridor Information Document), Paul
Mazataud (in charge of Traffic Management),
Guus de Mol (in charge of Sales &
Timetabling), Péter Rónai (in charge of Legal
Matters), and Bettina Wunsch-Semmler
(in charge of Corridor Management and
External Relations).

RNE Managing Board, Secretary General, Chief Information Officer. Ann Billiau is not pictured.



HARALD HOTZ ÖBB Infrastructure AG

RNE PRESIDENT



ANN BILLIAU

INFRABEL

ΙT

RNE VICE PRESIDENT



MIKAEL ERIKSSON

Trafikverket

Train Performance Management

RNE VICE PRESIDENT



MIROSŁAW KANCLERZ

PKP Polskie Linie Kolejowe S.A

Network Statement & Corridor Information Document

RNE VICE PRESIDENT



PAUL MAZATAUD

SNCF Réseau

Traffic Management

RNE VICE PRESIDENT



GUUS DE MOL

PRORAIL

Sales & Timetabling

RNE VICE PESIDENT



PÉTER RÓNAI MÁV Magyar Államvasutak Zrt Legal Matters RNE VICE PRESIDENT



BETTINA WUNSCH-SEMMLER
DB Netz AG

Corridor Management & External Relations

RNE VICE PRESIDENT

Mikael Eriksson left the Managing Board as of 29 May 2019 and the Board is joined by a new member: Mr Stefano Castro (RFI). The following proposal regarding the RNE MB portfolio was agreed on at the General Assembly on 29 May 2019:

- Harald Hotz (ÖBB-Infrastruktur AG): RNE President
- Ann Billiau (Infrabel): IT and Train Performance Management
- Stefano Castro (RFI): tbd
- Miroslaw Kanclerz (PKP PLK): Network Statement / Corridor Information Documents
- Paul Mazataud (SNCF Réseau): Traffic Management (TM)
- Guus de Mol (ProRail): Sales & Timetabling (S&TT)
- Péter Rónai (MÁV): Legal Matters (LM)
- Bettina Wunsch-Semmler (DB Netz AG): Corridor Management & External Relations

Joint Office



JOACHIM KROLL

SECRETARY GENERAL

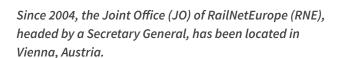
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The RailNetEurope Joint Office is responsible for day-to-day business, the chairing and coordination of international working groups, boards and high level groups, and the

management of international IT systems under the guidance and supervision of the RailNetEurope Managing Board – in compliance with decisions taken by the RailNetEurope General Assembly.

Today the RNE Joint Office counts about 25 employees from many different European countries working in close

cooperation on the RNE premises in the centre of Vienna. Some of them are on secondment from their national rail infrastructure company, the others have been hired directly from the labour market. The JO also uses temporary support from some external consultants.



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Members & Network

RailNetEurope (RNE) started in January 2004 on the initiative of a number of European railway Infrastructure Managers and Allocation Bodies (IMs/ABs), who wished to establish a common, Europe-wide organisation to facilitate their international business. Today RNE counts 34 Full Members from 25 different countries and 10 Associate Members (the Rail Freight Corridors). All in all their rail networks add up to well over 230 000 kilometres of railway lines.

Country	Name	Length of network	Web	Logo
AUSTRIA	ÖBB Infrastruktur AG	4.864km	<u>link</u>	ÖBB INFRA
AUSTRIA AND HUNGARY	GySEV-Raaberbahn Raab- Oeden- burg-Ebenfurter Eisenbahn AG	509 km	<u>link</u> <u>link</u>	G Y S E V Raaberbahn
BELGIUM	Infrabel	3.631 km	<u>link</u>	INFR/ABEL Right On Track
BOSNIA AND HERZEGOVINA	ŽRS - Željeznice Republike Srpske	425 km	<u>link</u>	ÄPC
BULGARIA	National Railway Infrastructure Company of Bulgaria (NRIC)	5.018 km	<u>link</u>	дп национална компания железопътна инфраструктура
CROATIA	HŽ Infrastruktura d.o.o.	2.617 km	<u>link</u>	🛱 HŻ INFRASTRUKTURA
CZECH REPUBLIC	SŽDC, Správa železnicní dopravní cesty, státní organizace	9.459 km	link	SIDC Grana binerili lipansi oaty
DENMARK	BDK - Banedanmark	3.241 km	link	banedanmark
FRANCE	SNCF Réseau (SNCF)	29.213 km	<u>link</u>	SVOF RÉSEAU

Country	Name	Length of network	Web	Logo
FRANCE	LISEA - LGV SEA Tours-Bordeaux (RNE member until 12/2018)	340 km	<u>link</u>	LISEA
GERMANY	DB Netz AG	33.400 km	<u>link</u>	DB NETZE
GREECE	O.S.E. (new RNE member since 01/2019)	2.240 km	<u>link</u>	Œ
HUNGARY	MÁV Magyar Államvasutak Zrt (MÁV Hungarian State Railways Co.)	7.273 km	<u>link</u>	S MÁV
HUNGARY	VPE Vasúti Pályakapacitás-elosztó Kft.		<u>link</u>	VPE VPE
ITALY	RFI - Rete Ferroviaria Italiana S.p.A.	24.278 km	<u>link</u>	GRUPPO FERROVIA FILA ITALIANA GRUPPO FERROVIE DELLO STATO ITALIANA
LITHUANIA	Lietuvos geležinkeliai	1.868 km	<u>link</u>	Glietuvos geležinkeliai
LUXEMBOURG	ACF – Administration des Chemins de Fer		<u>link</u>	ACF
LUXEMBOURG	CFL - Société Nationale des Chemins de Fer Luxembougeois	275 km	<u>link</u>	SOCIETE NATIONALE DES CHEMINS DE FER LUXEMBOURGEOIS
MACEDONIA	Makedonski Železnici Infrastruktura	925 km	<u>link</u>	
NETHERLANDS	ProRail B.V.	7.028 km	<u>link</u>	ProRail
NORWAY	Bane NOR	4.477 km	link	B^NE NOR
POLAND	PKP Polskie Linie Kolejowe S.A.	2.704 km	<u>link</u>	PKP POLSKIE LINIE KOLEJOWE S.A.
PORTUGAL	Infraestruturas de Portugal, S.A.	2.553 km	<u>link</u>	Infraestruturas de Portugal

Country	Name	Length of network	Web	Logo
ROMANIA	Compania Națională de Căi Ferate 'CFR' SA - Căile Ferate Române	10.600 km	link	CFR
SERBIA	ŽS – Željeznice Srbije	3.739 km	<u>link</u>	Нифрасшрукшура меленице Србије а.д.
SLOVAKIA	Železnice Slovenskej Republiky	3.624 km	<u>link</u>	ŽSR
SLOVENIA	Slovenske železnice- Infrastruktura, d.o.o.	1.228 km	link	Slovenske železnice
SPAIN	Administrador de Infraestructuras Ferroviarias (ADIF)	15.290 km	<u>link</u>	Sodif
SPAIN	Línea Figueras Perpignan S.A.	44 km	<u>link</u>	LFP Perthus
SWEDEN	Trafikverket Swedish Transport Administration	14.100 km	link	TRAFIKVERKET SWEDISH TRANSPORT ADMINISTRATION
SWITZERLAND	BLS AG	449 km	link	ਾ bls
SWITZERLAND	SBB Infrastructure	3.124 km	link	SBB CFF FFS
SWITZERLAND	Trasse Schweiz AG		link	trasse.ch
UNITED KINGDOM	HS1 - HighSpeed1 Ltd.	109 km	link	HIGH
UNITED	Network Rail	15.779 km	link	Network Rail

Associate Members

Corridor	Name	Logo
RFC 1	Rhine-Alpine Corridor	CORRIDOR ALPINE
RFC 2	North Sea-Mediterranean Corridor	CORRIDOR NORTH SEA - MEDITERRANEAN
RFC 3	Scandinavian-Mediterranean Corridor	ScanMed RFC STOCKHOLMOSLO-COPRIEMAGEN-HAMBURG-INNOSRUCK-PALERMO
RFC 4	Atlantic Corridor	ATLANTIC CORRIDOR
RFC 5	Baltic-Adriatic Corridor	RFC5 Baltic-Adriatic Corridor
RFC 6	Mediterranean Corridor	MEDITERRANEAN Rail Freight Corridor
RFC 7	Orient/East-Med Corridor	RFC7 C2-AT-5K-HU-RO-85-GR ORIENT CORRIDOR
RFC 8	North Sea-Baltic Corridor	Rail Freight Corridor 8 North Sea - Baltic
RFC 9	Czech-Slovak/Rhine-Danube Corridor	SRFC9 CSCORRIDOR
RFC 11	Amber Corridor	Amber Rail Freight Corridor

RNE KPI Management

The aim of the RNE KPI Management Process is to measure and evaluate the performance of the organisation and its IT tools, as well as its members' compliance with a number of harmonised business processes.



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	KPI Definition •	→ Monitoring & Reporting ◦	
Responsible Managers	Are consulted Propose calculation formula	Collect data Calculate KPIs	Identify problems Propose & implement improvement actions
Working Groups	Might be consulted	Provide data if necessary	Identify problems Propose & implement improvement actions
High Level Groups	Are informed	Are informed	Are informed
RNE Project Manager	Coordinates the process	Coordinates the process Evaluates the results Provides the report	Coordinates proposals and monitors their implementation
RNE Secretary General	Supervises the process	Supervises the process	Supervises the process
RNE Managing Board	Proposes (top-down approach) and approves	Approves	Approves
RNE General Assembly	Approves	Approves	Approves

RNE KPI Management Process

Projects & Activities

The RNE KPI Manual was updated in 2018 and all updates approved in December 2018.

The updates were minor adjustments to the calculation of the Project Management and IT KPIs, which will be applicable from 2019 onward.

The KPI calculation results are displayed on the next page.

Groups and sub-groups of KPIs

The below listed KPIs have been applicable since 2016.

MANAGEMENT (INTERNAL KPIS)

Project Management (excluding development projects of the core IT systems)

FINANCIALS (INTERNAL KPIS)

- Budget
- Funding

COMPLIANCE WITH CORE PROCESSES (EXTERNAL KPIS)

- Compliance with IM-related RNE Guidelines
 - (2 sub-KPIs included)
 - Compliance with RNE Network Statement Common Structure
 - Compliance with RNE Guidelines concerning non-RU Applicants
- Compliance with RFC (Rail Freight Corridor)-related RNE Guidelines
 (4 sub-KPIs included)
 - Compliance with RNE Guidelines for Coordination / Publication of Planned Temporary Capacity Restrictions
 - Compliance with RNE Guidelines for Corridor OSS and Pre-arranged Paths
 - Compliance with RNE Corridor Information Document Common Structure
 - Compliance with RNE Guidelines for Punctuality Monitoring
- Compliance with major international timetabling deadlines
 (2 sub-KPIs included)
 - Compliance with draft offer deadline
 - Compliance with final offer deadline

IT (INTERNAL KPIS)

- Operation (performance)
- **Development** (development projects)

Overall KPIs 2018 - Four Main Groups of KPIs

The below graphic displays the results of the four main groups of KPIs for 2018:



PROJECT MANAGEMENT



- Milestones, deadlines, budget
- All projects, except development projects related to the RNE core IT tools (IT tool development is evaluated in KPI 4 – IT)



FINANCIALS

105.8%



Budget: ratio of planned budget to final figures EU funding: ratio of planned funding to received funding



RNE MEMBER COMPLIANCE WITH THE CORE PROCESSES



74%

- 2017 2018
- Compliance with IM-related Guidelines
- Compliance with RFC-related Guidelines
- Compliance with major int. timetabling deadlines



IT



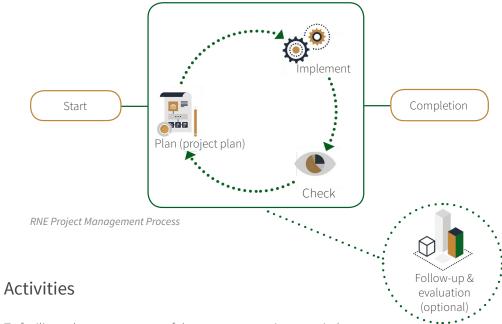
2017 2018

- Operation: performance of core IT tools (downtime) Development: development projects of
 - core IT tools

Projects & Activities

Project Management

The aim of RNE's Project Management is to plan, coordinate and monitor the complex and diverse activities of the organisation in order to deliver high-quality results for the benefit of its members, and thus for international rail business.



To facilitate the management of the numerous projects carried out by RNE, a content management IT tool (CMS) is used, which provides the functionalities needed to draft, share, generate and store project management-related documents. It also facilities the creation of project reports in an automated way and ensures that identical documentation is used and with the same level of information for each project.

Projects finalised in 2018

Park or Run tool - development and implementation

TCR: Tool

TTR Process Implementation

Creating IT for Rolling Planning using existing elements

CIS Developments

PCS Developments 2018

Big Data Integration

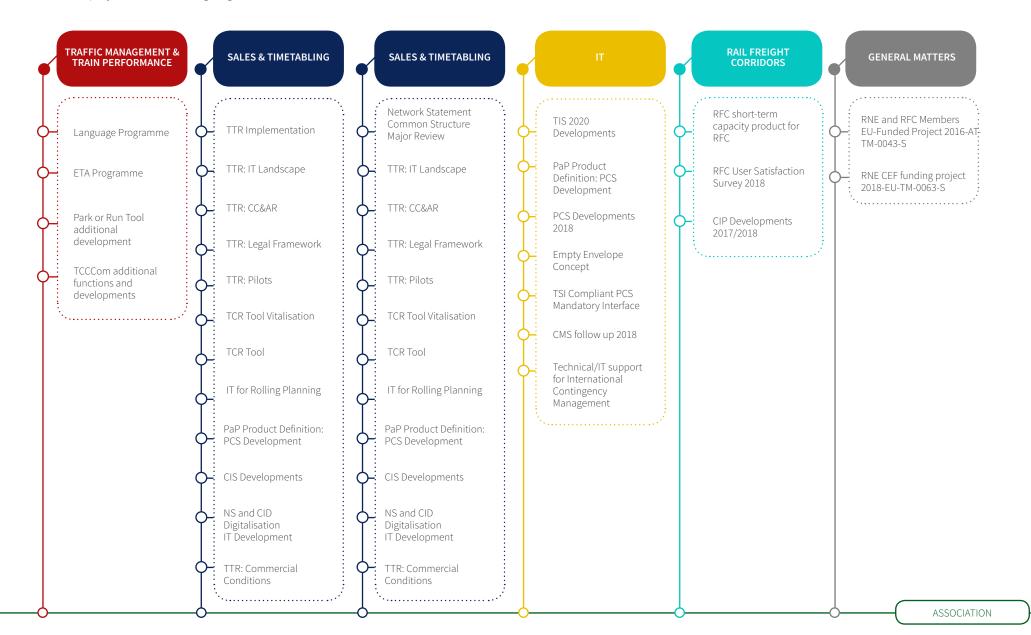
RFC User Satisfaction Survey 2018

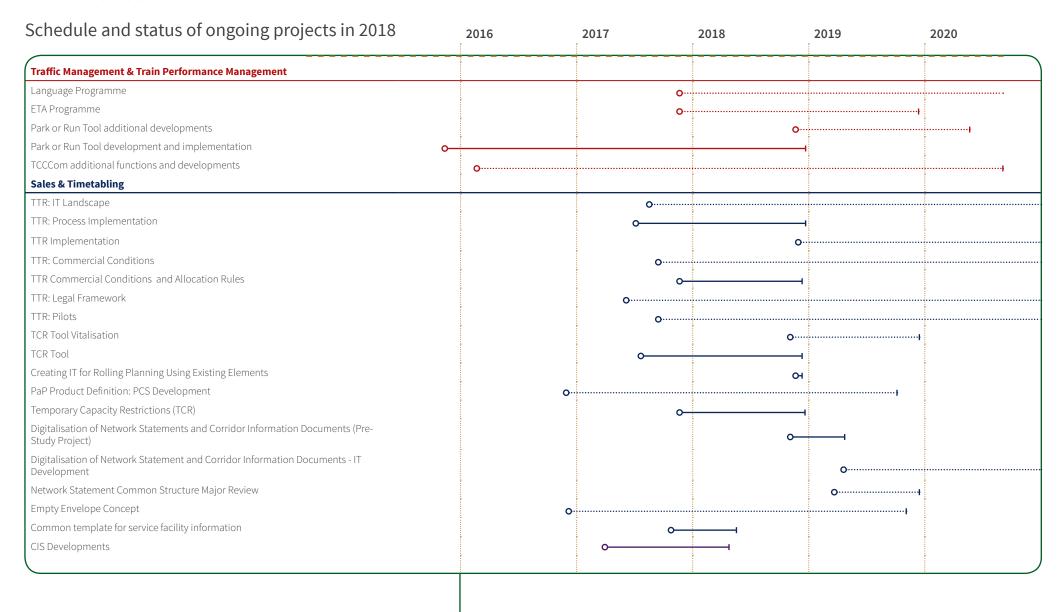
CIP Developments 2017/2018

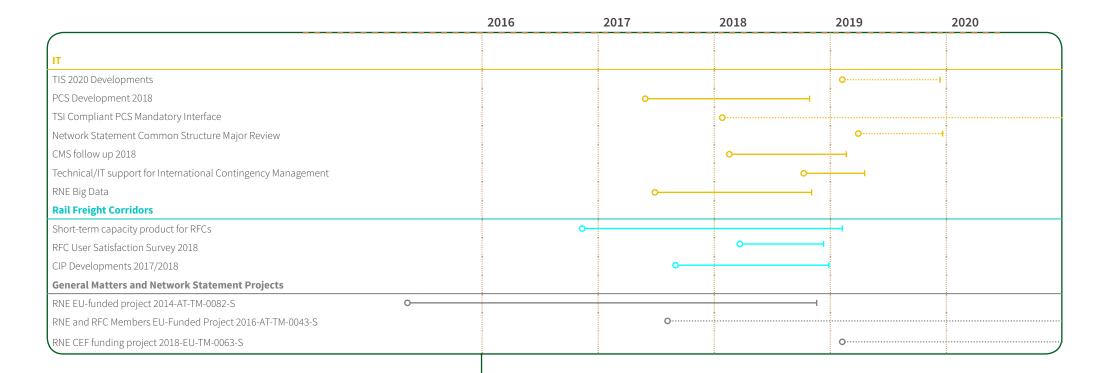
Common template for service facility information

RNE Project Portfolio 2018

The RNE Project Portfolio is composed of several projects clustered in seven business fields, which are displayed in the table below. It includes the list of projects that were ongoing in 2018.







Sector Statement Group

RNE is actively participating in the Sector Statement Group. The group is following up on the Sector Statement, signed by the Sector Stakeholders in summer 2016 in Rotterdam

The group consists of volunteers of representing organisations as well as RFC, IM and RU representatives.

The group has defined a list of ten priority activities (please see below), most of them directly connected to RNE business.

In 2018, Priority 10 (Harmonisation of Corridor Information Document (CID)) was closed as the main objectives had been achieved.
In addition, the new Priority 11 was introduced (International Contingency Management (ICM)).

The group aims to:

- commonly support and accelerate the defined priority activities,
- act as escalation level,
- achieve dedicated funding for priority activities.

Eleven Priority Activities:

- Priority 1: Following the Timetable Redesign project (TTR)
- Priority 2: New concepts for capacity offer on RFCs
- Priority 3: Improving Coordination on Temporary Capacity Restrictions (TCRs)
- Priority 4: Enhancing the use of Path Coordination System (PCS)
- Priority 5: Improving harmonisation of processes at borders
- Priority 6: Train tracking and Expected Time of Arrival (ETA)
- Priority 7: Prioritisation, funding instruments, and monitoring of TEN-T parameters
- Priority 8: Facilitating concrete ERTMS Implementation
- Priority 9: Monitoring the quality of freight services with implemented and shared KPIs
- Priority 10: Harmonisation of Corridor Information Document (CID) (achieved)
- Priority 11: International Contingency Management (ICM)

3 CORRIDOR MANAGEMENT

- General Information
- Corridor Map
- Project Summaries
- RFC KPIs
- Outlook
- CIP
 - About CIP
 - Project Summaries & Activities
 - Outlook



General Information

The Regulation (EU) No. 913/2010 concerning a European rail network for competitive freight became effective on 9 November 2010.

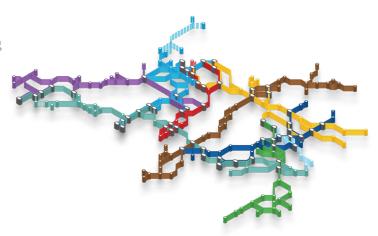
This Regulation required member states to establish international market-oriented RFCs (Rail Freight Corridors) to achieve three main objectives:

- strengthening co-operation between IMs on key aspects such as allocation of paths, deployment of interoperable systems and infrastructure development;
- finding the right balance between freight and passenger traffic along the RFCs, giving adequate capacity for freight in line with market needs and ensuring that common punctuality targets for freight trains are met;
- promoting intermodality between rail and other transport modes by integrating terminals into the corridor management process.

Since traffic does not usually start and end on an RFC exclusively, efficient and harmonised interfaces to the existing processes and tools of individual IMs and ABs participating in RFCs are needed. To achieve stronger harmonisation between the RFCs' various implementation approaches, RNE provides a coordination platform for RFC organisations to jointly develop harmonised processes and tools, to the benefit of applicants, as well as IMs and ABs that are part of several RFCs

To increase the involvement of the RFCs in RNE, two significant steps were taken: firstly, the High Level Group for RFCs (RFC HLG) was introduced and secondly, RFCs were invited to participate in the RNE General Assembly (GA). Furthermore, RNE also offered the RFCs the opportunity to apply for associate membership in the organisation to further strengthen mutual cooperation. With the application for associated membership of RFC Amber approved by the RNE GA in December 2017 and RFC Amber being integrated in all RFC-related activities coordinated by RNE throughout 2018, all 10 operational RFCs count as associate members of RNE.

RNE also actively supports the activities of the RFC Network. In order to provide administrative support, and to stabilise and professionalise the joint work of the RFC Network, the position 'RFC Network Assistant' was introduced. The RFC Network Assistant is located at the RNE JO in Vienna.





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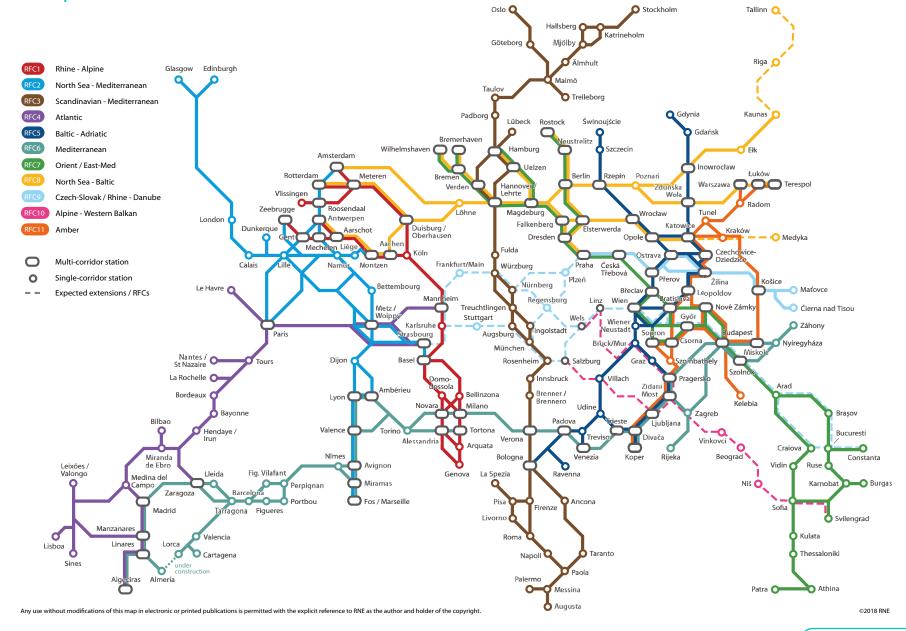


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RFC NETWORK ASSISTANT **SUSANNE KOPFER** susanne.kopfer@rne.eu

Corridor Map



RFC USER SATISFACTION SURVEY 2018

Summary

Article 19 (3) of Regulation 913/2010 concerning a European rail network for competitive freight requires the management boards of the RFCs to conduct a satisfaction survey of corridor users and to publish its results once a year. On the basis of the first three waves, the project aimed to continue the yearly RFC user satisfaction survey. The questionnaire was shortened considerably in order to make it more time-efficient for the respondents to fill in. At the same time, it has been ensured that the results remain comparable with those of previous years.

Main Milestones

- Start: Approval of project proposal: 22 February 2018
- End: Provision of results: 30 November 2018

This project has been successfully completed.

SHORT-TERM CAPACITY PRODUCT FOR RFCS

Summary

As requested by the RFC Network, RNE together with the C-OSS Community conducted a feasibility study on improving the RFCs' short-term capacity product. Following two pilot projects conducted together with 4 RFCs, it was concluded that under the current organisational structure and with the tools available to C-OSS managers, it is not feasible for RFCs to achieve a significant market share in this area. Still, the technical solution for shortening the deadline for placing capacity requests after the currently applicable deadline for reserve capacity requests remained in PCS as a legacy of the pilots. RNE shall also further focus on short-term capacity request management in the business field of Sales & Timetabling.

Main Milestones

- Start: Opinion-gathering within the C-OSS Community: November 2016
- First pilot project with RFC Baltic-Adriatic: May November 2017
- Second pilot project with 4 RFCs: December 2017 December 2018
- End: Evaluation and conclusion of the project: February 2019

This project has been successfully completed.

RFC KPIs

Article 19 (2) of Regulation (EU)
913/2010 concerning a European
rail network for competitive freight
requires the management boards of
the RFCs to monitor the performance of
rail freight services on their respective
RFCs and publish the results once a
year. To facilitate the fulfillment of
the above obligation, in 2015, a joint
RNE-RFC project team developed a first
set of KPIs commonly applicable to all
RFCs. These KPIs were included into the
Guidelines 'Key Performance Indicators
of Rail Freight Corridors'.

The further development of commonly applicable KPIs was triggered by the Rotterdam Sector Statement of 2016. One of its priority projects was to monitor the quality of freight services by means of implemented and shared KPIs. To meet this requirement, the sector developed certain proposals and those which proved feasible have been added to the set of commonly applicable RFC KPIs.

In addition, an RNE/RFC KPI
Coordination Group has been
established, aiming to coordinate the
harmonised use of these KPIs and to
evaluate their use on a yearly basis.
The figures of the commonly applicable
KPIs are published in a harmonised
form on the RNE website to provide
this information in a transparent and
easily accessible way for all interested
stakeholders. In the beginning of 2018,
the RFCs and RNE agreed that each KPI
figure should be published as soon as it
is available.

Outlook

The overall goal of further cooperation between RNE and the RFCs is to promote a network approach and the use of common interfaces to the furthest extent possible. In order to steer the joint efforts, the RNE/RFC High Level Group is committed to prioritise proposed projects for further cross-corridor harmonisation.

The associate membership of RNE is also open to new RFCs established according to Regulation 913/2010. RFCs Rhine-Danube and Alpine-Western Balkan, which are scheduled to become operational by the end of 2020, are expected to apply for associate RNE membership, which will enable them to benefit from the RFC-related projects and activities managed and coordinated by RNE.

The European Commission has formally launched the evaluation of the Rail Freight Corridor Regulation in February 2019, the process being scheduled to continue throughout 2019 and be concluded in 2020. While RNE would not contribute to this evaluation process by submitting an official position of its own, an overview of all RNE activities compiled with regards to the requirements of this Regulation shall support RNE members in formulating their own positions on this matter.

CIP

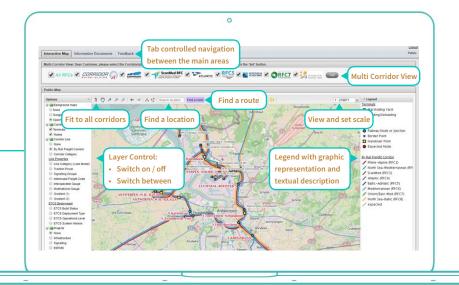
About CIP

The Customer Information Platform (CIP) is an interactive, internet-based information tool. By means of a graphical user interface (GUI), the CIP provides precise information on routing, terminals and track properties, as well as infrastructure investment projects of the participating RFCs.

At the request of several RFCs, RNE took over the ownership, hosting and maintenance of the CIP from Rhine-Alpine EEIG (RFC 1). This has enabled the CIP to become a multi-corridor tool providing harmonised information processes.

As of 2018, the CIP displays information on railway infrastructure in 24 European countries covering the network of 6 out of 9 RFCs: Rhine-Alpine (RFC 1), North Sea – Mediterranean (RFC 2), Scandinavian – Mediterranean (RFC 3), Atlantic (RFC 4), Baltic – Adriatic (RFC 5), Mediterranean (RFC 6), Orient/East-Med (RFC 7) and North Sea – Baltic (RFC 8). The remaining RFCs are scheduled to implement CIP by the end of 2020.





Project Summaries

CIP DEVELOPMENTS 2017/2018

Summary

The Customer Information Platform (CIP) is an interactive, internet-based information tool. By means of a Graphical User Interface, the CIP provides precise information on routing, terminals and track properties, as well as infrastructure investment projects of participating RFCs. RNE is further developing the CIP according to the decisions of the CIP Change Control Board (CCB) and following the approval, if necessary, of the RNE Managing Board and General Assembly. To find a common view on which new functions shall be developed in the CIP and to ensure that these new functions will fit into RNE's portfolio of IT tools, the CIP CCB approved the CIP strategy.

Main Milestones

- Start: Approval of the project proposal by RNE Managing Board: August 2017
- Kick-off: Approval of the proposed developments and budget by CIP CCB: September 2017
- Alignment of different CIP packages: December 2017
- Connection to RNE's BigData: June 2018
- Rollout to RFCs Mediterranean and Orient East Med: December 2018
- Further ad-hoc developments / End: December 2018

This project has been successfully completed.

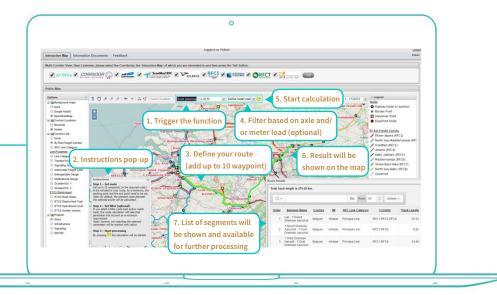
Activities

To be able to display the RFC-relevant information available in other IT tools in RNE's portfolio in the interactive map of CIP, but also to support the rollout of CIP to further RFCs, the connection of CIP to RNE's Big Data was established in 2018.

After having secured the required funding via their PSA applications, RFCs Mediterranean (RFC 6) and Orient/East-Med (RFC 7) have joined the CIP in the second half of 2018 and went productive, i.e. made their contents available to the public in early December 2018. In parallel, the detailed geometries were implemented in the CIP along the routing of RFC Baltic-Adriatic (RFC 5).

The user interface of CIP has been continually enhanced to further improve the experience of CIP users throughout 2018. In particular, the route-finding functionality of CIP was extended to enable users to search for their preferred route in an advanced manner by filtering the corridor routes based on the available axle and/or meter load.



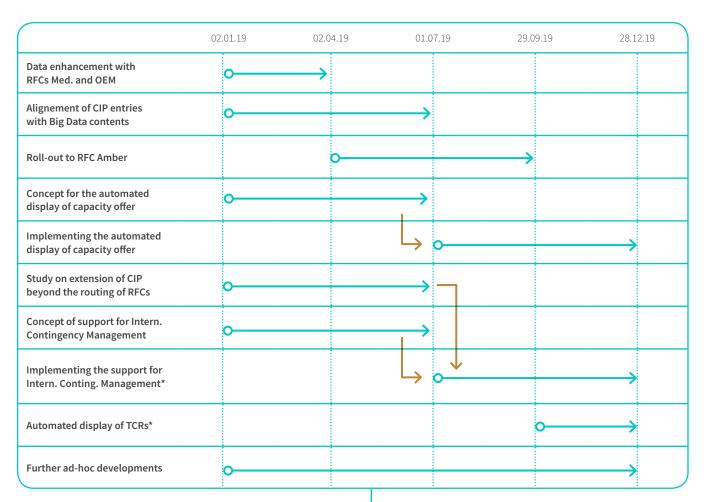


Outlook

RNE further develops the CIP according to the decisions of the CIP CCB, obtaining approval by the RNE General Assembly if necessary. To find a common view on which new functions shall be developed in the CIP and to ensure that these new functions will fit into RNE's portfolio of IT tools, the CIP CCB approved the CIP strategy. In addition, the Amber corridor (RFC 11) is scheduled to implement the CIP in 2019.

To support efficient implementation of the developments outlined in the CIP strategy throughout 2019, the RNE Managing Board decided to set up a dedicated project, 'CIP Developments 2019'.





CIP Developments 2019 - Project Timeline

4

SALES & TIMETABLING

- General Information & Timetabling Process
- **TTR**
- **TCR**
- Activities
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- Outlook
- PCS
 - About PCS
 - Project Summaries & Activities
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- Network Statement and Corridor

Information Document

- General Information
- Project Summaries & Activities
- Outlook



General Information

A key element for facilitating access to the European rail network is a harmonised timetabling process for international train path requests.

It is RNE's role to continuously improve and further develop this process. Harmonised procedures and deadlines that are valid for all Infrastructure Managers (IMs) and Allocation Bodies (ABs) within the RNE network benefit the entire rail industry. RNE's members provide processes by agreeing on process steps and timelines, which can be found in various guidelines and which cover the timetabling process from the planning of capacity to its allocation. In various groups and boards, measures to improve this process are specified.

The Path Coordination System (PCS) covers all of these process steps as the only common international tool for path request and allocation. As main subjects in the last and for upcoming years, RNE has taken over two important tasks: The complete redesign of the international timetabling process (TTR) and the incorporation of temporary capacity restrictions (TCRs) – as described in the recast Annex VII of the Directive 2012/34/EU – into the complete capacity planning process.

Proposals— Sales & TT HLG Strategy level High Level Managers from all IMs/ABs ← Decisions -RNE MB/GA Proposals — TCR WG Sales & TT WG Business experts from all IMs/ABs Business experts from all IMs/ABs Decisions — Operational level IT/PCS **Process RU Activisory Group (TT) PCS Change Control Board** +RUs IM and RU business experts PCS/TT experts from various IMs/ABs PCS Technical Board **PCS User Group** +RUs **PCS Test Group PCS Training Group RFC C-OSS Community**

Overview of RNE Sales & Timetabling Groups

SALES & TIMETABLING

MANAGER

TTR – Redesign of the International Timetabling Process

Incomplete harmonisation of timetabling procedures between European countries makes it difficult to cooperate at international level. To remedy this unsatisfactory situation, RailNetEurope (RNE) and Forum Train Europe (FTE) – supported by the European Rail Freight Association (ERFA) – together launched the project 'Redesign of the International Timetabling Process' (TTR).

After the approval of the project results by the RNE General Assembly (May 2017) and FTE Plenary Assembly (June 2017), the project progressed significantly in 2018:

- A detailed process description was created
- Allocation rules have been defined
- A preliminary legal evaluation has been created and published
- First basics for commercial conditions have been defined and were used in a market study to evaluate possible implementation scenarios
- The concept for a complete IT landscape, which is required to roll out TTR, has been drafted and subjected to a feasibility check by all RNE and FTE members

To implement TTR on all levels – Europe-wide and nationally – the RNE GA approved the launch of the project 'TTR Implementation'. It covers the complex implementation action plan and will align national TTR projects. In the second quarter of 2019, the TTR team will perform several road show presentations all over Europe to call for these national projects, which are scheduled to start in September 2019.

In addition, TTR pilots have also provided first results: two pilot lines have published their capacity based on a capacity model in January 2019. To complement the already active pilot lines, ÖBB INFRA has announced to join the pilots with a network pilot starting in timetable 2021.

More information can be found on ttr.rne.eu.



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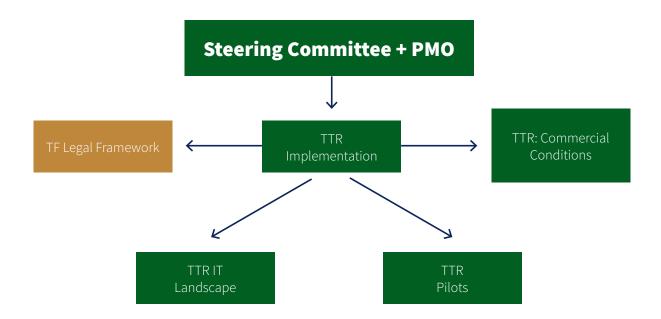
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TTR

TTR Overall Structure 2019

(RNE/FTE Projects and Permanent Task Forces)



TCR

TEMPORARY CAPACITY RESTRICTIONS (TCR)

Better coordination of TCRs (Temporary Capacity Restrictions) is a key factor in the effort to increase the quality of timetabling. The integration of the management of planned temporary capacity restrictions into the timetabling process was a major subject in 2017. The recast of the Annex VII of Directive 2012/34/EU provided at the end of 2017 served as the driving force for creating new guidelines for the coordination and publication of TCRs in 2018.

A project team, consisting of RNE, FTE and ERFA members, created the new document, which was approved by the RNE GA in December 2018 and is published on RNE's website. Further additions and improvements are the subject of a working group at RNE, dedicated to TCRs.

In addition to the guidelines, RNE provided a first prototype for a tool to coordinate and publish TCRs. After a first pilot run in 2018, the tool is being further developed with a final deployment expected by the end of 2019.

Main milestones

- Publication of recast Annex VII: November 2017
- RNE GA agreement to create TCR Guidelines for the whole railway network: December 2017
- TCR tool prototype available: January 2018
- First version of the TCR Guidelines for the whole network approved by the RNE GA: May
 2018
- First plot run of the TCR tool completed, start of improvements and enhancements:

 October 2018
- Updated and enhanced TCR Guidelines for the whole network approved by the RNE GA: December 2018



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TIMETABLING & TCR
MANAGER
ANDRIUS
BARTUŠKEVIČIUS

(until Feb 2019)

Activities

Timetabling Quality

In December 2016, the RNE General Assembly agreed to launch a task force to boost the quality of international timetables as well as the compliance with agreed milestones. Since then, several measures with high priority have been launched, such as the creation of mandatory PCS interfaces, improved communication between IMs in the path elaboration phase and a revision of the RNE Technical Meeting.

Revision of the Handbooks for Planning International Paths

In 2018, RNE launched the complete revision of its handbooks for timetabling. At the end of the year, the RNE GA approved the new Process Handbook for International Path Allocation, for Late Path Requests and for Ad-Hoc Requests. In addition, RNE agreed to add additional detail layers to these handbooks and provide additional handbooks for path modification and alteration.

The final agreement by the RNE GA to these handbooks is expected by the end of 2019. With TTR in the pipeline, these handbooks will be updated whenever a new TTR implementation step has been achieved.

Non-RU Applicants

Several years ago, RNE agreed on the provision of guidelines for non-RU applicants. In the meantime, IMs had the possibility to gain experience with applicants. Given the increased number of non-RU applicants, RNE has started to revise these guidelines and to start implementing the respective technical features in the Path Coordination System (PCS). The revised guidelines are expected to be approved by the RNE GA in December 2019

TTR: IT LANDSCAPE

Summary

The TTR results have been agreed by RNE and FTE in May and June 2017 with several components to be implemented. TTR: IT Landscape is one of the five projects that has been started in the framework of the TTR programme. The main objective of this project is to provide a definition of the IT landscape including architecture, connections/interfaces, and national IT requirements, and then to create and ensure the execution of actions which will lead from the current state to the defined IT landscape, including support for TTR: Pilots.

Main Milestones

- Start: 22 August 2017
- Start the preparation of the implementation phase: 1 June 2019
- End: 4 December 2024

Please take note that the complete rollout of TTR is expected in 2024, therefore, new tasks could be assigned to the TTR projects and they might be prolonged.

TTR: PROCESS IMPLEMENTATION

Summary

TTR: Process Implementation is one of the five projects that has been started in the framework of the TTR programme. In order to come from todays' situation to a fully applicable new TT process, each of the various TTR components must be transferred from the current to the target state. The project provided the main milestones as an overall action plan and a more detailed process description.

In December 2019, the RNE GA agreed to a new approach: A new implementation project has been launched while the process description updates are subject of the TTR Pilots project. Therefore, this project has been closed with the main subjects divided among the two aforementioned projects.

Main Milestones

- Start: 27 June 2017
- End: 05 December 2018

Project TTR Process Implementation has been integrated into the project TTR Pilots (from 2019).

TTR: IMPLEMENTATION

Summary

The TTR Implementation project aims for full implementation of TTR in Europe at national and European level with all involved stakeholders, according to the TTR timeline and following the TTR implementation plan. This will be achieved by having all RNE members assigning national TTR managers, who steer the national implementation of TTR and its enablers (including change management), RNE will fulfil the role of the implementation coordinator.

Main Milestones

- Start: 5 December 2018
- End: 4 December 2024

Please take note that the complete rollout of TTR is expected in 2024, therefore, new tasks could be assigned to the TTR projects and they might be prolonged.

TTR: COMMERCIAL CONDITIONS

Summary

TTR: Commercial Conditions is one of the five projects that has been started in the framework of the TTR programme. The goal for the TTR commercial conditions is that they become an enabler of the successful implementation of TTR by motivating both IMs/ABs and applicants to manage and use capacity as efficiently as possible in order to reduce waste of capacity. The introduction of harmonised commercial conditions should motivate applicants to order only the capacity they ultimately need. In addition, IMs should be motivated to plan TCRs in such a way that the number of subsequent alterations and cancellations of already allocated paths is minimised.

Main Milestones

- Start: 21 November 2017
- End: Approval of the final proposal for harmonised commercial conditions 4 December 2019

Please take note that the complete rollout of TTR is expected in 2024, therefore, new tasks could be assigned to the TTR projects and they might be prolonged.

TTR: COMMERCIAL CONDITIONS & ALLOCATION RULES

Summary

TTR: Commercial Conditions & Allocation Rules is one of the five projects that has been started in the framework of the TTR programme. Path instability is a general concern in Europe. The reservation rate of paths is abnormally high compared with the number of circulated paths due to a caution practice of RUs. The result of this situation is finally a huge waste of capacity on the networks due to over-reservation of paths. The main objective of this project is to create a harmonised framework for commercial conditions and allocation rules applicable for all European IMs in consultation with the RUs that effectively pushes RUs to use the capacity they have reserved and to return excess reserved capacity ahead of time. At the same time, this provides incentives for IMs to refrain from modification and cancellation of already allocated capacity (particularly related to TCRs).

Main Milestones

- Start: 21 November 2017
- End: 05 December 2018

From December 2018, project TTR Commercial Conditions continues as a separate project. The Allocation Rules work package is integrated into the project TTR Pilots.

TTR: LEGAL FRAMEWORK

Summary

TTR: Legal Framework is one of the five projects in the framework of the TTR programme. The project focuses on checking the compliance of TTR elements (e.g. TTR project description, PIDs, commercial conditions, allocation rules) with European and national legal frameworks and on providing guidance/proposing ways how to ensure a legally sound implementation of the TTR results.

The work is organised in the form of a task force consisting of legal experts from IMs, RUs, FTE, CIT, EIM and CER. It provides legal advice to other TTR projects (e.g. CCs, Pilots) proactively and on demand as a task force.

Main Milestones

- Start: 21 June 2017
- Legal analysis of TTR project description published in Q4/2018
- End: 31 January 2023

Please take note that the complete rollout of TTR is expected in 2024, therefore, new tasks could be assigned to the TTR projects and they might be prolonged.

TTR: PILOTS

Summary

TTR: Pilots is one of the five projects that has been started in the framework of the TTR programme. In May/June 2017, RNE and FTE agreed on carrying out pilots. Three different railway lines were chosen: Mannheim-Miranda de Ebro, Verona-München and Rotterdam-Antwerpen, followed by the decision of ÖBB Infra to launch a core network pilot from TT2021.

These pilots will provide: proof of the business reference model's accuracy, definition and specification of data reference model for capacity, input for process steering methods (e.g. allocation rules, commercial conditions), input for performance reference model, comparable capacity models with actual requests.

Main Milestones

- Start: 11 September 2017
- Capacity models published for the first time: 14 January 2019
- First Rolling Planning requests: August 2019
- End: 14 December 2024 (TTR fully implemented)

This project is ongoing.

TCR TOOL

Summary

The proper coordination and communication of temporary capacity restrictions (TCRs) is a key factor in the provision of reliable capacity information, based on which high quality paths can be created. Although works are important for keeping the infrastructure in good shape, bad coordination leads to a waste of capacity. The final objective of this project is to create a TCR tool that gives an overview of TCRs across Europe, contributes to information exchange between IMs and enables effective TCR planning at international level.

Main Milestones

- Start: 30 August 2017
- First version of the TCR tool available, start of the pilots: 5 February 2018
- End: 5 December 2018 (implementation in productive environment)

This project has been completed.

CREATING IT FOR ROLLING PLANNING USING EXISTING ELEMENTS

Summary

In order to meet market requirements, Rolling Planning should be introduced to enable requests for high-quality paths at any time. The railway sector currently uses the PaP product in the timetabling process, however, TTR does not use the term PaP anymore and the functional state of the PaP is not entirely in line with the Rolling Planning approach. Therefore, the PaP product could not be used in the future timetabling process. The goal of this project is to create a concept of how to avoid the development of an entirely new product and how the current PaP product can be transferred to the safeguarded capacity element of TTR.

Main Milestones

- Start: 08 November 2018
- Draft concept available: 09 August 2018
- End: Final approval by the RNE MB: 08 November 2018

This project has been successfully completed.

TCR TOOL VITALISATION

Summary

In order to ensure acceptance and future use of the improved TCR tool, the project TCR Tool Vitalisation was launched after the first pilot phase resulted in a wide lack of acceptance for the newly created TCR tool. The main goal of the TCR Tool Vitalisation project is to make the TCR tool functions user-friendly and in line with other European IT developments, especially TTR.

Main Milestones

- Start: 8 November 2018
- Function development finished, start of the pilot phase 2: 30 June 2019
- Full rollout of TCR tool 2.0: 5 December 2019
- End: 9 December 2019 (approval by the RNE GA and full rollout of TCR

This project is ongoing.

PAP PRODUCT DEFINITION: PCS DEVELOPMENT

Summary

After a complete revision of the PaP product in 2016 it was necessary to describe the functional requirements of the PaP in its new form. It should allow applicants to enter additional requirements within the defined thresholds and IMs to construct paths according to the needs identified in the path elaboration phase. The main objective of this project is to develop and implement the respective PCS functions that reflect the PaP/C-OSS Guidelines.

Main Milestones

Start: 8 December 2016

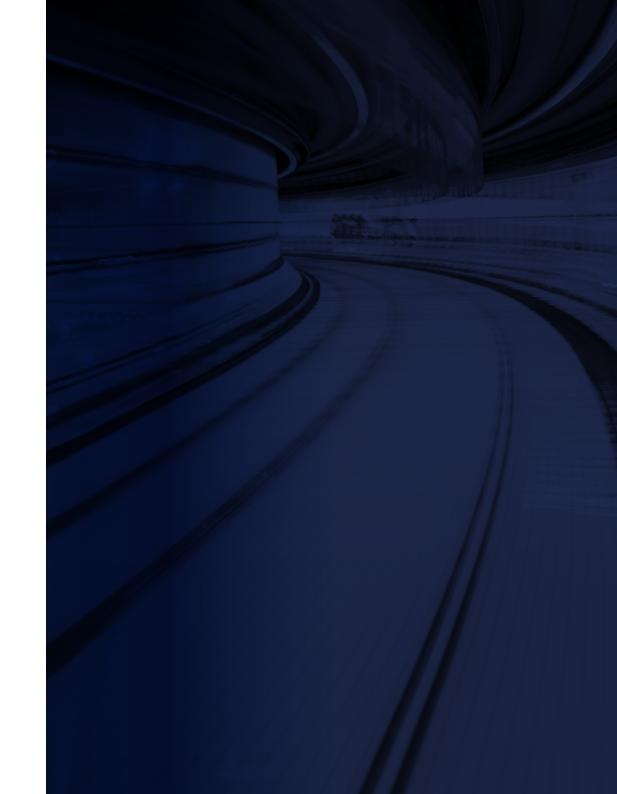
End deployment: 30 September 2019

This project is ongoing and PCS will be in line with PaP/C-OSS Guidelines after the finalisation of the Empty Envelope Concept.

Outlook – Sales & Timetabling

In 2019, the S&TT area of RNE will focus on the following tasks:

- The start of the full implementation of TTR, with national projects being launched in the second half of 2019, including the provision of concepts and implementation plans for the full IT landscape, for commercial conditions and possible updates within the legal framework.
- The existing TTR pilots have reached the path request phase for timetable 2020, while others are in preparation for a launch in 2021.
- The ongoing improvement of the current timetabling process and increased compliance with the agreed processes.
- The ongoing revision of RNE's TT handbooks.
- Improvements of the Path Coordination System
 (PCS) particularly the establishment of the 'Envelope
 Concept' in September 2019 and the ongoing creation
 of mandatory PCS interfaces.
- The implementation and improvements of the TCR Guidelines and the TCR tool.
- The update of the guidelines for non-RU applicants.



PCS

About PCS



The Path Coordination System (PCS) is an international path request coordination system for path users, e.g. applicants including Railway Undertakings (RUS), Infrastructure Managers (IMS), Allocation Bodies (ABS) and Rail Freight Corridors (RFCs).

The internet-based application optimises international path coordination by ensuring that path requests and offers are harmonised by all involved parties. Input for international path requests need only be placed once into one system, either into the domestic application or directly into PCS.

For further information on PCS please visit http://pcs.rne.eu/.
PCS support can be contacted via support.pcs@rne.eu or on +43 (0)1 907 6272 24.

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The new user interface, PCS Next Generation, has been in place since January 2016. This new interface provides better usability by allowing users to work more effectively with their data.

During 2018, the new PCS has consolidated its performance without any noticeable incidents, responding to the users' needs.

RNE also continued to provide training sessions organised together with the RFCs (Rail Freight Corridors). The Content Management System (CMS) continued to provide new and updated documentation, improvements in the change request management area, a new centralised management of meeting data and information, as demanded by the users, and a notification service regarding the latest developments involving PCS.

Throughout the year, 11 new releases were implemented, containing improvements and fixes.

The PCS Team worked in other important projects as well:

- Envelope Concept
- PaP product definition steps
- TAF-TSI and PCS Integration Platform consolidation package

As regards support, more than 600 tickets were solved in 2018.

Aside of PCS itself, the team also maintains an up-to-date version of the International Train Number Database (ITNDB) and, of course, the RNE Content Management System (CMS).



EMPTY ENVELOPE CONCEPT

Summary

The idea behind the envelope concept is to align the way IM and RU agents achieve harmonisation in PCS. IMs already, to a certain extent, work according to the Envelope Concept in that they all independently modify their respective stretches of the path during the path elaboration phase. This very often leads to inconsistencies and ambiguities in their offers. There are differences between the individual IMs as well as between different cases of the same IM. Inconsistencies in subsidiaries, overlapping of the calendar or subsidiaries not covering all running days are even more frequent and impact both RU and IM timetables. The goal is to create a standard dossier structure in PCS, increase usability for the users in terms of providing comparison between request and offer, replace the combined PaP/tailor-made solution with nationally based sub-paths, integrate the Single Border Point Approach into PCS, and establish a monitoring possibility at the borders, also in service of timetable quality.

Main Milestones

- Start: 8 Dec 2016
- Kick-off date: 18 May 2017
- End: 30 September 2019

This project is ongoing.

TSI-COMPLIANT PCS MANDATORY INTERFACE

Summary

Currently, in order to request a path for international service, an applicant may (in accordance with the RNE agreement) present its request through the PCS and/or a national system. Even though some IMs/ABs have implemented a possibility to automatically synchronize international train path request data between national systems and the PCS, in most cases, this data interface is manually maintained by IMs/ABs/RUs. This double work leads to a waste of human resources within IMs/ABs or additional costs for RUs when it is provided as a paid additional service. For this reason, PCS is mostly used for new path requests only and just in the active timetable phase at the end of August. Therefore, the goal is to develop a mandatory interface of national systems to PCS, to ensure that applicants are required to place a request only once and follow the common implementation timeline for the interfaces and processes.

Main Milestones

- Start: 16 May 2018
- End: 12 November 2021 Expected full rollout of the interface with all generally agreed functions. The four process types have to be supported for the ATT 2022.

PCS DEVELOPMENTS 2018

Summary

Minor Release 2018

- Close dossier function after path request and before allocation; automatic dossier promotion for rejected dossiers in final offer
- Removal of frozen zone in observations
- Administration for labels, filters

Major Release 2018

- Envelope Concept and PCS IP version 6.0
- Publication of slots for reference PaPs and threshold for train parameter constraints in PaPs

Main Milestones

- Start: 4 May 2017
- Approval of the packages by PCS CCB and Technical Board: 1 March 2018
- Minor Release: 4 April 2018
- End: Major Release: 13 November 2018

Parts of the Minor Release have been successfully completed, parts of the Major Release have been merged with Empty Envelope Concept.

Outlook

In 2019, the PCS team will focus its efforts mainly on the above projects, the development of new documentation, improvement of the provided trainings, and update of the change request list.

In the fall of 2019, the Envelope Concept should be deployed in the production system. Just as in the PCS Next Generation project, the users will be involved in each iteration of the concept to provide a feature that is as closely adapted to their needs as possible.

The new, broader 'Applicant' concept will replace the 'Railway Undertaking (RU)' concept. The change will be carried out in PCS, its documentation and in the PCS contracts.

The PCS team will improve the system according to the C-OSS Guideline and TSI-compliant PCS Mandatory Interface project, thereby increasing the reliability

and interconnectivity and improving the customer experience of PCS.

The results of the IT envisioning for TTR are being taken into consideration in 2019, as is the TCR tool and its technical and functional details regarding interaction with PCS.

A new Rolling Planning process will take effect in the course of 2019. This Rolling Planning process is the first step in the support of the TTR pilots and will be deployed from August. Rolling Planning will allow to request paths from X-4 to X-1 this year.

A new tool, called Electronic Capacity Model Tool (ECMT), will be developed this year. It will provide information on temporary capacity restrictions (TCRs), capacity bands, and paths in general.



CIS

About CIS

The CIS is an infrastructure charging information system for applicants, Infrastructure Managers (IMs), Allocation Bodies (ABs) and other interested parties. The web-based application provides fast information on charges related to the use of European rail infrastructure via estimating the price for the use of international train paths.

Benefits of the CIS:

- Fed with data by 26 IMs/ABs and is therefore an umbrella application for the various national rail infrastructure charging systems
- Estimates charges for the use of international train paths within minutes
- Provides charge estimates not only for the current, but also for the next timetable period
- Provides charge estimates for shunting and station use, too
- RFC routing-based calculation method is also available

Usage of the CIS:

The chart on the right shows the number of queries made per type of user for the period of April – December 2018 (this type of report has been available since April 2018)

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IT SERVICE DESK
MANAGER & CIS
TECHNICAL MANAGER **DANIEL DREXLER**daniel.drexler@rne.eu

For further information on CIS, please visit the RNE CIS website **cis.rne.eu** or contact us via **support.cis@rne.eu** or +43 (0)1 907 6272 25

Besides various small developments which increased the user-friendliness of the system both for query users and data managers, an RFC routing-based calculation of infrastructure charge estimates was implemented in April 2018.

What does this entail? In addition to the conventional method, which is independent of RFC routings, the query users can now define on which RFC(s) and which of their path segments they would like to make a query for a charge estimate. All ten operational RFCs are now included.

CIS DEVELOPMENTS

CIS previously contained a function for calculating the charges along RNE corridors' routes. The goal of the project is to implement an RFC route-based estimate of infrastructure charges according to the RFCs' requirements.

Main Milestones

- Start: Approval of the change proposal by the CIS CCB: 21 March 2017
- Functional and technical development: 27 November 2017
- End: Final rollout for query users: 30 April 2018

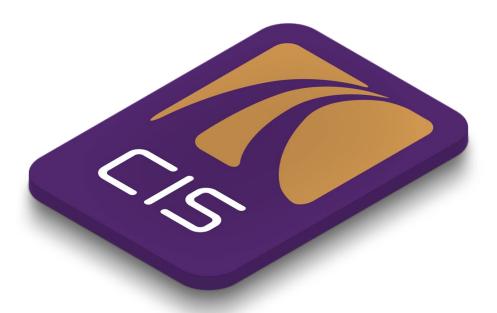
This project has been successfully completed.



Outlook

First and foremost, the aim is to further improve data quality both in the short and medium term.

As a long-term goal, there is a demand to include a sales module in the TTR IT landscape, which should provide information, for example about commercial conditions and infrastructure charges. Therefore, another (yet to be defined and further analysed) step could be the extension of the functionalities of the CIS to include commercial conditions and using the enhanced CIS application in TTR.



Network Statement and Corridor Information Document

General Information

Understanding Network Statement as well as Corridor Information Document issues is essential for successful communication and cooperation between IMs, ABs and RFCs in this domain. For this reason, RNE's activities related to Network Statements and Corridor Information Documents (CIDs) are now integrated into one common working group. This facilitates the cooperation between the IMs, ABs and the RFCs and helps them to better understand each other's needs.

The major achievements and further goals of the RNE Network Statement and Corridor Information Document Working Group are described in the next section.





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RNE Network Statement Common Structure and Corridor Information Document Common Structure

RNE has been promoting the harmonisation and publication of user-friendly, customer-oriented NSs and CIDs. To this end, RNE's members have agreed on a common structure and an implementation guide for both documents, which enables applicants to find the same information in the same place in each NS and CID. The RNE Network Statement Common Structure is in line with the requirements of Directive 2012/34/EU, while the Corridor Information Document Common Structure complies with Regulation 913/2010/EU. Furthermore, they are revised every year and are adjusted to new legal (including regulatory) and business (including customer) requirements when needed. In addition, since May 2010 the main document in a NS should be translated into English as decided by the RNE GA.

Further Harmonisation of the CIDs

Based on the applicants' demand, Book 4 of the CID had already been harmonised in cooperation with the RFCs under the RNE umbrella in 2016. Book 4 is of key importance because it describes all procedures for capacity allocation by the corridor one-stop shop

(C-OSS), planned temporary capacity restrictions (TCRs), traffic management and train performance management on the RFCs.

In 2017, a dedicated RNE-RFC task force achieved the harmonisation of the text for Book 1 (Generalities) and Book 2 (Network Statement Excerpts). This way, most of the contents of the CIDs became harmonised with the publication of the timetable 2019 editions in January 2018

Due to the harmonisation of the contents, applicants can find texts and information with the same quality and level of detail in them. Furthermore, the harmonised texts facilitate the production of individual CIDs.

As the harmonisation of the CIDs has been progressing well in general and the harmonised texts have been implemented by all RFCs, it was concluded in 2018 by the Sector Statement Group that Priority Project 9 'Harmonisation of the CID' of the Rotterdam Sector Statement had been achieved

KPIs for the Compliance with the RNE NS and CID Common Structures

The KPI is aimed at measuring the compliance of RNE members' NSs and CIDs with RNE NS and CID common structures. The results were the following in 2018 compared to 2017:

NS and CID KPI results

KPIs	2017 (2019 TIMETABLE YEAR)	2018 (2020 TIMETABLE YEAR)
Network Statements	88 %	87 %
CIDs	91 %	95 %

The 87% result among the NSs has been affected by the fact that just 43% of RNE members produce the English version at the time of publication of the original language version. Considering just the RNE Common Structure compliance, the NS KPI would achieve a 92% result.

The much higher result among the CIDs (95%) can be attributed to the implementation of the harmonised CID Books (Book 1, Book 2 and Book 4), which means full compliance with the Common Structure of these CID Books.

COMMON TEMPLATE FOR SERVICE FACILITY INFORMATION

Summary

Article 5(2) of the draft Implementing Regulation on access to service facilities and rail-related services prescribes that IMs shall provide a common template to be developed by the railway sector in cooperation with RBs that operators of service facilities may use to submit the information required by this Implementing Regulation. Due to its experience with the RNE NS and CID common structures and an existing template for terminal information in these documents, RNE has been mandated to develop a common template together with the RBs.

The goal of the project is to fulfil the above legal requirement by developing a common template acceptable for all stakeholders concerned (IMs, RFCs, RBs and service facilities) together with a common process for the use of this template.

Cooperation between RNE and IRG-Rail has been fruitful and the EC thanked RNE for its work. CER and EIM provided relevant contributions by involving other stakeholders, namely the SF representatives.

Main Milestones

- Start: Kick-off meeting: 3 October 2017
- End: Approval by the RNE GA: 16 May 2018

This project has been successfully completed.

RNE Glossary for NSs and CIDs

This is an easy-to-use glossary of terms related to NSs and CIDs. Its aim is to facilitate the production, the harmonisation of wording and the comparability of the CIDs and English-language NSs. The definitions are written in a clear language using as little technical or legal jargon as possible. They provide practical guidance both to IMs/ABs and applicants. As the railway sector is undergoing rapid change, this glossary is a dynamic document which is updated and expanded yearly. Therefore, the following improvement was made to the glossary in 2018: Selection of (around 30) terms from the main RNE glossary that are applicable to all CIDs so that each individual CID is based on the same definitions.

DIGITALISATION OF NETWORK STATEMENTS AND CORRIDOR INFORMATION DOCUMENTS (PRE-STUDY PROJECT)

Summary

Today the IMs publish their Network Statements (NSs) in extensive .pdf documents on their websites, the RFCs publish their Corridor Information Documents (CID) on their websites, too, and/or in the Customer Information Platform in the same format as done for the NSs. Both documents are based on the RNE Network Statement and CID Common Structure to a great extent. Harmonisation is, therefore, mostly in place; the next step will be to provide a more efficient overview of the contents of the NSs and CIDs to the applicants in a user-friendly way via a dedicated IT solution. The goal of this pre-study project was to create and propose an overall concept for the digitalisation of NSs and CIDs, including a list of functional requirements.

Main Milestones

- Start: 08 November 2018
- Deliverables ready: Concept and list of requirements available: 05 March 2019
- End: RNE GA approval of the deliverables and budget for the IT development: 29 May 2019

This project has been successfully completed.

Outlook

DIGITALISATION OF NETWORK STATEMENTS AND CORRIDOR INFORMATION DOCUMENTS - IT DEVELOPMENT

Summary

By using the deliverables of the above project, which are an overall concept and list of requirements, the goal of this project is to develop an IT tool suitable for the digitalisation of NSs and CIDs.

Main Milestones

- Start: Approval of project proposal by RNE GA: 29 May 2019
- Specifications ready: 18 October 2019
- End: in 2020, the final rollout date is to be defined together with the future supplier

This project is ongoing.

The major benefits of digitalisation of these documents are as follows:

- Applicants will find the contents of all NSs and CIDs on one single platform in a user-friendly manner
- Analysis and comparison of processes along various IMs/ABs and RFCs will be facilitated
- Harmonisation of NSs and CIDs (compliance with the RNE NS and CID common structures and texts) will be further promoted
- Digitalisation in railways will be further promoted and enhanced in an additional business field
- Simplification will be achieved

NETWORK STATEMENT COMMON STRUCTURE MAJOR REVIEW

Summary

The RNE Network Statement Common Structure, currently adopted by all RNE members (86% compliance), was created in 2002 and since then incremental changes have been adopted each year to accommodate legal and business requirements. However, due to the amount of legal developments from 2002 up to today, RNE members have identified the need for a major review of the NS Common Structure, allowing a more efficient organisation of the document information. Examples of this are the Operations and the Service Facilities information. Additionally, the Digitalisation of the NSs and CIDs require the adoption of a fixed structure to be used by all IMs and ABs. The review of the NS Common Structure is an opportunity to create a solution fully accepted by all, meaning a compliance objective of 100%. The goal of the project is to redesign the Network Statement Common Structure in order to efficiently accommodate all new legal and business requirements and to enable success conditions for the Digitalisation project.

Main Milestones

- Start: Approval of project proposal by RNE MB: 17 April 2019
- Revised Common Structure ready: 18 October 2019
- End: Approval by the RNE GA: 4 December 2019

This project is ongoing.

The major benefits of the Network Statement Common Structure Major Review are as follows:

- Network Statements will be structured in a more business-focused and user-friendly manner for applicants
- IMs and ABs will have an easier / more efficient production of the Network Statement
- It will also become a major enabler of the digitalisation of Network Statements

Improvement of the Glossary

- Selection of (around 30) terms from the main glossary that will be applicable to all NSs, meaning that each individual NS will be based on the same definitions
- Categorisation of terms according to business fields to facilitate the search for terms, mainly for translators of the NSs and all people who are requested to check the glossary for updating needs every year

5 TRAFFIC & TRAIN PERFORMANCE MANAGEMENT

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Traffic Management

General Information

The leaders of traffic management departments meet twice a year in the Traffic Management High Level Group to define the general RNE strategy concerning traffic management and to propose and monitor the specific tasks to be carried out within dedicated project groups. In addition, there is a network of traffic management experts, who can be addressed in case of specific traffic management questions and participate in dedicated projects.

The RNE strategy concerning traffic management is to develop and improve operational processes to facilitate and enhance cooperation between RNE members and Rail Freight Corridors (RFCs) in the matter of traffic management. At an operational level, RNE strives to improve cooperation between IMs and RUs.

The RNE Traffic Management is focusing on:

- identification of international operational processes and examination of possibilities for their harmonisation
- setting up measures for operational improvements, if relevant, in collaboration with the Rail Freight Corridors
- providing a platform for the exchange of best practices and experiences related to traffic management
- functional improvement of the Train Information System (TIS) regarding real-time information exchange and use



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Activities

The provision of a reliable estimated time of arrival has become one of the top priority activities within the sector. In addition, the incident in Rastatt in autumn 2017 revealed weak points in the communication between the different partners involved in the train run. Therefore, the question of language used in communication between IMs and RUs was raised. As a reaction to these two sector priorities, the RNE General Assembly agreed to establish two top priority projects in December 2017: the ETA Programme and the Language Programme. More information about both programmes can be found on the next pages.

International Contingency Management

As a direct reaction to the Rastatt incident, under the initiative and coordination of RFC Rhine- Alpine, the Handbook for International Contingency Management was developed and approved by the RNE General Assembly in May 2018, endorsed by PRIME and RU Dialogue and acknowledged by important European sector associations.

The purpose of this handbook is to describe standards that allow the continuation of traffic flows at the highest possible level even in case of an international disruption and to ensure transparency regarding the status of the disruption and its impact on traffic flows for all relevant stakeholders across Europe.

Based on the approved handbook, the core activities during 2018 were:

- Preparation of a harmonised approach and the needed documentation templates to support the implementation of the processes as described in the ICM Handbook
- Preparation of re-routing overviews and operational scenarios by IMs and RFCs
- Supporting simulations by providing a platform for information and experience exchange between IMs and RFCs

Park or Run

Development of the Park or Run tool was finalised in November 2017 and detailed testing of the tool was started, including the bilateral dry test between interested IMs. By the end of March 2018, more than 100 dispatching staff members from 6 IMs' national traffic control centres were trained in order to start the pilot of the Park or Run tool. The basic functionality of the tool was finalised and tested during the pilot from April to September 2018. The supporting documentation (POR Implementation Guidelines, POR User Manual and POR Functional Handbook) were finalised by the project team. The IMs participating in the 2018 pilot agreed to use the tool in daily business from January 2019.

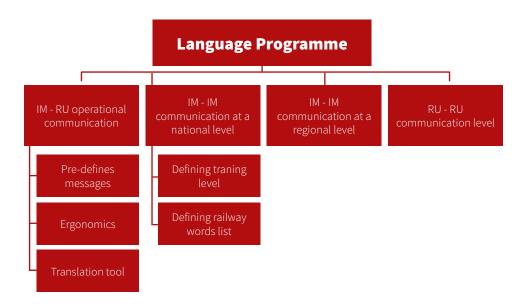
Language Programme

In the last few years, the language barriers topic has become widely discussed within the European railway sector. Today, the operational language within each Infrastructure Manager (IM) is in most cases the national language of the respective country. As a result of this, internationally operating train drivers need language skills beyond their native language. The importance for IMs to communicate with each other during unforeseen situations is recognised and has recently been given higher priority. Therefore, the goal of the Language Programme is to find a solution to improve interoperability and lower costs while ensuring that safety is at least as high as it is today.

Together with the Agency (ERA) and the RU Dialogue, RNE has been working on proposals of potential solutions for decreasing language barriers. The Language Programme was initiated in 2017 and was started with a kick-off meeting on 8 February 2018.

The Language Programme was defined to focus on four distinct aspects:

- IM-IM communication at national level
- IM-IM communication at regional level
- IM-RU operational communication
- RU-RU operational communication



The four situations are different and should be addressed differently. During 2018, the main activities within the Language Programme concentrated on IM-RU operational communication and IM-IM communication at national level. The other two aspects will be focused on later in the project.

IM – RU Communication

For the aspect of IM – RU communication, sub-groups were established within the project, where more technical solutions will be discussed. The sub-groups have the following goals:

- Pre-defined Messages: arrange, compare and translate pre-defined messages, based on a list created by UIC
- Translation Tool: define the functional requirements of a translation tool
- Ergonomics: investigate how the pre-defined messages and the translation tool would work between signallers and drivers; communication must be safe and should be achieved with as few additional tools as possible

IM – IM Communication

As decided by the RNE General Assembly, there should be at least one English-speaking dispatcher in each shift at the national traffic control centres from January 2020 onwards so that English communication is possible if needed. During the General Assembly in May 2018, the members were informed that the required level in English will be B1. After deeper discussions in the Language Programme Working Group, it was proposed that the dispatchers should speak English at A2+ level. The proposal was supported by the Traffic Management High Level Group.

The Language Programme Working Group found it important that the English-speaking dispatchers should be able to use railway jargon in addition to their general English A2 level skills (railway-specific jargon is what the plus represents). No tests and certificates are required.

ETA Programme

A lack of information on individual train movements or forecasts of arrival at certain locations remains one of the weaknesses in international rail freight transport. Real-time information on train running data is already available in high quality in the RNE TIS system, but due to legal restrictions may only be passed on with the necessary agreements in place. Currently, 30,000 of these so-called Data Exchange Agreements are stored in TIS alone. To improve this situation it is planned to include the Rotterdam Sector Statement into the TAF TSI to simplify data sharing. In addition, it is being discussed to include the calculation of the ETA qualifier in the TAF TSI.

The railway sector has also voluntarily committed itself to making this data available to everyone directly involved in a transport and to working on improving the forecast data. This train running and forecast information is defined and regulated in TAF TSI and almost all European Infrastructure Managers have already integrated this data into TIS.

Both the ELETA and RNE ETA projects are co-financed projects under the Connecting Europe Facility (CEF). While the ELETA project aims to improve forecasting data, the RNE project focuses on exchanging and forwarding forecasting data and determining the quality of different forecasts.

RNE ETA Project – Description of RNE Activities

The main objectives of the project are:

- Sharing best practices between IMs for assessing ETA
- Assessing the quality of forecast messages delivered by individual IMs
- Using TIS and TAF/TSI for exchanging ETA between partners

In 2018, a so-called ETA qualifier was developed to determine the quality of ETA data. The ratio of the error, in a forecast, to the remaining time to the forecast point is calculated.

Several IMs already have an ETA and in 2018 more detailed studies were carried out with ÖBB, DB Netz and SBB. The data was analysed using the developed ETA qualifier. It was also tested whether, and to what extent, forecast data is already being used by neighbouring IMs.

To summarise: the forwarding of forecast data is already being carried out for some railways, the ETA qualifier provides very good information regarding the quality of the report and there is still a lot to be done in the calculation of the ETA. The principle of the ETA qualifier was also confirmed, and the wish was expressed to include it in the TAF TSI.

TECHNICAL/IT SUPPORT FOR INTERNATIONAL CONTINGENCY MANAGEMENT

Summary

The Rastatt incident led to major disruptions in national and international transport in 2017. The sector responded to this accident by introducing the Handbook for International Contingency Management approved on 15 May 2018 by the RNE General Assembly. The handbook focuses on defining cooperation rules and processes. It does not reference possible technical support or IT solutions, which should be developed by IMs and RFCs, together with RNE.

The goal of the project is to conduct a pre-study on how to support the business processes technically by preparing the new project proposals for IT developments, including the functional specifications, the budget estimate for the potential development and the financing schema. The tasks are to analyse and propose the best technical solution:

- Detailed analysis of current RNE systems and their planned future developments
- Proposal for short-, medium- and long-term solution

Main Milestones

- Start: 11 October 2018
- End: 17 April 2019: The RNE MB agreed on the development of re-routing overviews in the CIP and forwarding the results to the CIP CCB for the final decision about development and budget allocation. The MB also agreed on the closing of the project. A new project should be set up in case need for additional developments would be identified in the future.

This project has been successfully completed.

LANGUAGE PROGRAMME

Summary

The Language Programme is a European project with the goals of improving interoperability, lowering costs, keeping the system safe and at the same time contributing to increasing cross-border traffic. Together with UIC, ERFA and the Agency, RNE is working on defining and developing solutions to achieve the goals of the programme and expectations of the European railway partners. Four distinct situations will be addressed:

- IM-IM communication at national level.
- IM-RU operational communication,
- IM-IM communication at a regional level and
- RU-RU operational communication.

Main Milestones

- Start (approval of the project proposal): 6 December 2017
- A study of how an automatic translation tool would affect IM-RU communication: July 2019
- Commercial & legal issues for translation tool being used in IM-RU communication:
 November 2019
- One list of pre-defined messages (IM-RU communication): December 2019
- Design a solution for the IM-RU communication in detail: December 2020

This project is ongoing.

ETA PROGRAMME

Summary

The ETA Programme focuses on how to share best practices between the Infrastructure Managers regarding estimated time of arrival (ETA). The focus is on the development of IT solutions in order to display and explore neighbouring IMs' forecast messages. The ETA Programme Working Group has been investigating how to validate forecast messages sent to a certain point during a train run and the results will be implemented into the TIS (Train Information System). Analyses are being done on a regular basis, and the programme is focusing on displaying and comparing results. The goal is for all IMs to display forecast information with the same conditions, in order to work preventively.

Main Milestones

- Start (approval of the project proposal): 6 December 2017
- Kick-off meeting: 24 January 2018
- Developments of forecast qualifier into TIS: May 2018
- Phase I: December 2018
- Phase II: November 2019
- Present results from Phase I and II to RNE General Assembly: December 2019

PARK OR RUN TOOL - DEVELOPMENT AND IMPLEMENTATION

Summary

In case of capacity restrictions on the network (major disturbances, line interruptions, strikes, etc.), IMs must find suitable solutions together, concerning which international trains may run as planned and which trains should be temporarily parked. At the moment, there is no common tool available which can enable or facilitate this process. The goal of the project is to develop detailed specifications for the Park or Run tool - an electronic information exchange tool integrated in TIS – based on the needs of the IMs (and RUs in the future), prepare the detailed guidelines and processes for its usage, monitor the IT development of the tool, test it and prepare the implementation of the tool into the daily business by carrying out a pilot.

Main Milestones

- Start (approval of the project proposal): 4 November 2015
- Functional specifications done: July 2016
- IT development started: February 2017
- Tool fully available, tested and ready for staff training: 1 November 2017
- Start of the one-year pilot: 3 April 2018
- End: December 2018

This project has been successfully completed.

PARK OR RUN TOOL - ADDITIONAL DEVELOPMENTS

Summary

The basic functionality of the tool, as specified within the project Park or Run Tool - Development and Implementation was finalised and tested during a pilot from April to September 2018. For the moment, the tool is used

- to define interruptions and automatically identify and notify the affected IMs
- to automatically identify the trains affected by the interruption
- to support the communication between affected IMs about which affected trains may run and which trains need to be parked and where they should be parked.

The goal of the project is to increase the usage of the tool by involving other IMs, RFCs and RUs and extend the scope of the tool to fulfil additional needs, especially support the communication with RUs and the process of restarting the trains after parking.

Main Milestones

- Start (approval of the project proposal): 05 December 2018
- End: May 2020

TCCCOM ADDITIONAL FUNCTIONS AND DEVELOPMENTS

Summary

The TCCCom tool was integrated into TIS in 2015 and enables the exchange of pre-defined messages between traffic control centres. Several IMs started using the tool in their daily business in April 2016. As IMs have gained experience in using the tool, they requested additional improvements and new functions to be developed. The main goal of the project is to provide functional requirement specifications to:

- Make TCCCom more user-friendly
- Fulfil the requirements of IMs and RFCs regarding TCCCom tool functionalities
- Adapt the system to the current users' needs

Main Milestones

- Start (approval of the project proposal): 25 February 2016
- Kick-off meeting: 14 October 2016
- Functional specifications for new improvements: September 2017
- End: July 2018: Due to the new TIS development, and to avoid stranded investments, the development of new TCCCom functions was suspended and any additional improvements or developments are postponed until an improved new TIS is available. Before re-starting the TCCCom development, the results of the Language Programme study would be evaluated, to avoid investment into a tool with no foreseen future usage.

Outlook

Traffic Management

The focus during 2019 will be on the continuation of the top priority projects:

ETA Programme

The Estimated Time of Arrival project continues as planned. The RNE Traffic Management department planned the following goals for 2019, to be achieved in close cooperation with the ETA task force, IMs, terminals and RUs within the sector:

- Definition of a unique method to assess forecast/ETA quality provided by different sources (RUs, terminals, IMs and others)
- Supporting IMs in the improvement of ETA calculation
- Facilitating the dissemination of ETA through the entire logistic chain

Language Programme

The main tasks in the working group will be:

- Finalising the list of pre-defined messages and their translation into the required languages
- Creating a list of requirements of the planned translation tool
- Coordinating and supporting language pilots that will be implemented on several cross border sections in Europe
- Monitoring the implementation of the language policy regarding the level of English of national traffic controllers

International Contingency Management

The main tasks in relation to International Contingency Management will be:

- Monitoring the implementation of ICM processes and providing IT and technical support, if needed
- Revision of the handbook based on the experience gained during the year following the adoption of the handbook

Park or Run Additional Developments

The additional developments of the Park or Run tool will be prepared in order to:

- increase usage of the tool by involving other IMs, RFCs and RUs;
- extend the scope of the tool to fulfil additional needs.

All activities are in line with the overall goal and strategy related to traffic management.

Train Performance Management

General Information

RNE provides a platform for cooperation and coordination between the IMs and RFCs related to train performance management.

The RNE Performance Management Working Group:

- defines international processes, common methodology and standards for monitoring and improving train performance management on RFCs
- provides support for the implementation of train performance management measures on RFCs and serves as a platform on which different RFCs can exchange their experiences
- provides reporting services based on demand to IMs, RFCs and RUs
- oversees functional improvements of the Train Information System (TIS)
 regarding reporting and acts as change control board for all changes and
 developments related to the RNE reporting tool (Oracle Business Intelligence)

The Data Quality Working Group constantly monitors TIS data quality, proposes measures for its improvement and streamlines the data quality process.



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REPORTING EXPERT

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Train Performance & Data Quality Management - Activities

The further improvement and extension of the RNE reporting portfolio were the main activities during 2018. The new data loading procedures were implemented to enable more detailed performance analyses.

The current reporting portfolio includes:

- detailed punctuality reports of specific traffic flows
- RFC punctuality reports (daily, monthly, quarterly and yearly reports)
- detailed reports enabling the identification of problematic areas from a
 performance point of view (point-oriented RFC performance reports, dashboard,
 raw data reports, etc.)
- RFC KPI reports
- TIS data quality reports

Based on the requirements of RUs, the possibility to also offer direct access to reports to RU users was investigated. The commercial conditions, pricing model, and functional specifications for RU-oriented reports, as well as the access contract for RU reporting services, were finalised in June 2018.

The revision of the Guidelines for Punctuality Monitoring and the RNE Train Performance Cooperation Manual was started and will be finalised in May 2019.

Outlook

Train Performance Management

The main goal for 2019 is to continue to provide a solid and stable basis that supports the RFC TPM groups in their tasks and to enlarge the RNE reporting portfolio in order to fulfill the additional business requirements of IMs, RFCs, RUs and other interested parties.

The improvement of data quality to guarantee reliable reports and KPIs will again be one of the most important goals during 2019. The detailed investigation and analysis of the weak points together with the involved IMs and RFCs will be a crucial activity in the achievement of this goal.

An additional important task will be related to the new TIS 2020 development, adapting the existing reporting portfolio to the new conditions.

TIS



About TIS

The RNE Train Information System (TIS) is a web-based application that supports international train management by delivering real-time train data about international passenger and freight trains. The relevant data is obtained directly from the Infrastructure Managers' systems. Data is continuously monitored and in close cooperation with different working groups the quality of data is improved.

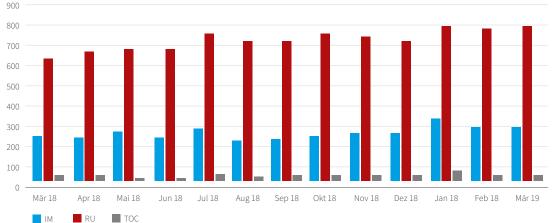
One of the core functions of the TIS is the linking of separate nationally ordered trains into one international train. A new approach was initiated to simplify data sharing between cooperating Railway Undertakings (RUs) and as a result, information exchange within the same international train run will be easier.

Implementing the Regulation about telematics applications (TAF/TAP TSI), TIS is still a frontrunner, using the European railway framework for the exchange of online train information. Besides real-time train information, the train composition message will be introduced as requested by the railway sector.

TIS is co-financed by the European Union to support the railway sector by simplifying the management of international railway traffic and efficiently steering the logistical chains and answering the question 'Where is my train?'. One of the future projects will be to bring terminals closer to the system by linking them to TIS and covering first and last miles.

The TIS user count has been increasing in 2018 once again, reaching 1,200 single users per month. Over the last year, Norway and Bulgaria joined the TIS and by now almost the entire European continent is covered. Finally, the target set by the European Commission to provide an application to monitor trains at international level has been achieved.





Project Summaries

TIS 2020 DEVELOPMENTS

Summary

The TIS - 2020 application will be based on new technology. The entire system architecture will be significantly improved and maintenance will be easier, which will eventually reduce the costs. User satisfaction will be increased and the system will be able to process around 7 million messages per day to meet the business requirements of the railway sector. TIS will be prepared to play an important role as a data hub.

Main Milestones

- Inbound interfaces: path details, CTT, train running information, search engine network overview: January 31, 2019
- Outbound interfaces: train running forecast, train delay cause, data defect indicators, historical train details – DWH data train linking: May 30, 2019
- Path section notification, train composition, train interruption, train ready message, edit train data, message performance checks: September 15, 2019
- Go live Final acceptance tests: December 31, 2019

This project is ongoing.

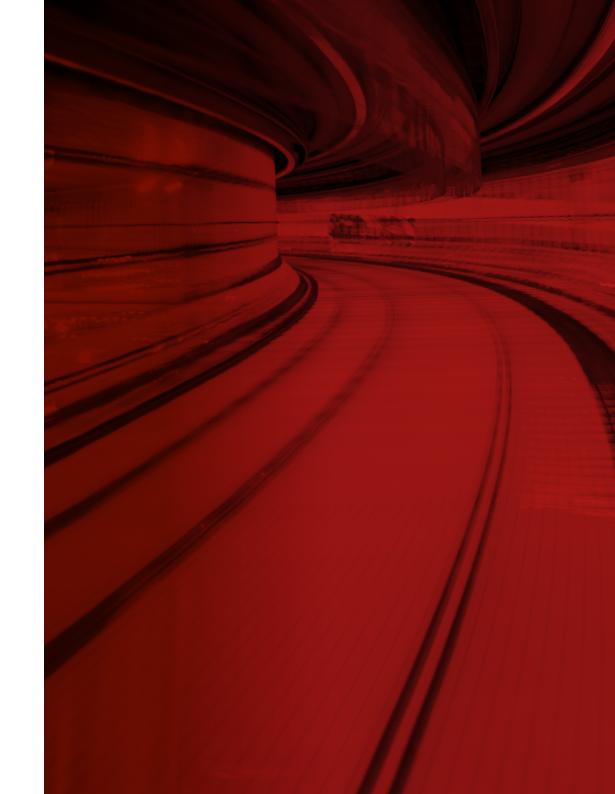


Outlook – TIS

The main topics regarding TIS development are:

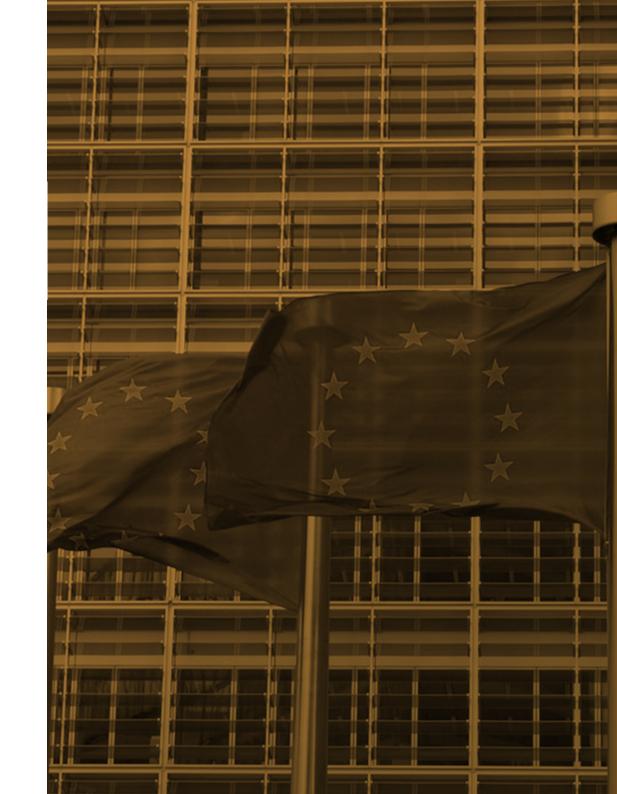
- Estimated Time of Arrival (ETA) generation of forecast qualifier (quality checks of forecast messages at national level as the basis/input for international transport ETA)
- Optimisation and simplification of the user interface for terminals (Terminal Trip) (terminals can provide information until technical interfaces are introduced)
- Application Performance Package message processing re-engineering to meet future needs about accelerating and handling train information data (improvement of the user interface - new state of the art framework)
- Implementation of additional TAF TSI messages
 - service disruption
 - train composition message
- Connection of TIS to RNE Big Data unique source of locations and geographic data

All activities are in line with the overall goal to define a clear, long-term strategy related to the future usage of TIS in traffic management, including the first and last mile information for terminals, covering the lifecycle of the entire international transport from departure origin to final destination and making the data available for reporting and performance reports.



6 LEGAL MATTERS

- General Information
- Project Summaries & Activities
- Outlook



General Information

The RailNetEurope Legal Matters Working Group (LM WG) consists of lawyers and legal experts from RNE member organisations and provides support to RailNetEurope regarding all internal legal issues related to the association's statutes, Internal Rules and Operational Guidelines (IROGs) and other operational documents, as well as various contractual and legislation issues.

The fact that this working group is a pool of legal experts drawn from European rail Infrastructure Managers (IMs) has been recognised by industry stakeholders such as the Rail Freight Corridors (RFCs), the Intergovernmental Organisation for International Carriage by Rail (OTIF) and lobbying organisations – who frequently ask the group for legal input.

In addition, the group has lead important harmonisation projects, such as the European General Terms and Conditions (E-GTC-I). The RNE LM WG also creates legal documents that are harmonised across Europe and oversees the expert monitoring of European legislation, e.g. EU Directive 2012/34, including its delegated and implementing acts, the Fourth Railway Package, the Rail Freight Regulation 913/2010 and the Passenger Rights Regulation with regard to IM obligations.



Project Summaries & Activities

What were the main activities of the Legal Matters Working Group (LM WG) in 2018?

The fruitful exchange between all legal experts in the group continued to prove very useful. In 2018, many legal questions on operational RFC issues could be answered, e.g. regarding the regular update of the implementation plan or the Corridor Information Documents (CID).

The group also provided continuous input to the project 'Redesign of the International Timetabling Process' (TTR). A legal task force consisting of lawyers from RNE members, FTE, CER, EIM and CIT and chaired by the LM WG chair assessed compliance of TTR with national and European law. The results of this assessment were presented in a paper outlining legal challenges and possible solutions to accommodate TTR. The group identified ways how to implement key elements of TTR without changing the main body of Directive 2012/34/EU. In order to create a solid legal basis for the implementation of TTR, the group suggested amending Annex VII to Directive 2012/34/EU.

As usual, the group supported the RNE GA in the association management, e.g. by adapting the IROGs to a more appropriate handling of job profile descriptions. Detailed legal advice was also given to the NS&CID WG with respect to the NS common structure, harmonisation templates and the template for service facility information.

The group's statements for RNE on the revision of the

international rules concerning the Contract of Use of Infrastructure in International Carriage by Rail (CUI) proposed via EIM and CER were fully taken into account when the OTIF General Assembly adopted the finally revised CUI version during their 2018 autumn meeting – quite a success for RNE and the working group.

Finally, the group drafted new and revised some of the existing templates of the IT RNE contracts: a new TIS agreement for reporting services and a new TIS interface agreement for small and middle-sized TIS users were created; the TIS User Agreement template was updated, mainly regarding the inclusion of wagon keepers as eligible TIS users; the CIP User Agreement was changed to accommodate one single package instead of four different packages in the CIP tool.



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Outlook – Legal Matters

As there will be major IT developments in 2019, the RNE LM WG will be required to draft new or update existing IT contracts - e. g. related to PCS and Big Data.

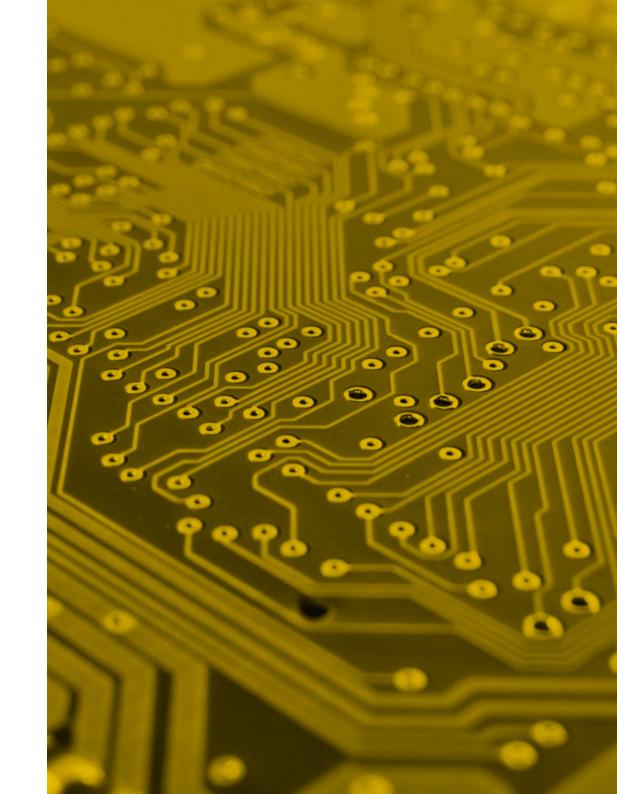
The group will again have to approach several questions in connection with the Freight Regulation and make proposals for amendments to the RNE statutes and IROGs according to possible new developments.

As regards European legislation, the group will continue monitoring the latest developments regarding the revision of Regulation (EU) No 913/2010 on the Rail Freight Corridors. The revision of the Passenger Rights Regulation (PRR), which is discussed to be aimed at Infrastructure Managers as well, will be observed and evaluated with a critical view regarding possible upcoming legal obligations of Infrastructure Managers.

Finally, the group in its role as part of the TTR Legal Task Force will continue to provide legal advice to and support the TTR pilots and the TTR project as a whole on topics such as the content, structure and publication of pilot information documents, allocation rules, commercial conditions and the design of capacity models based on input by the members of the TTR Core Team and the pilot leaders.

7 RNE IT

- IT Strategy
- TAF/TAP TSI
- Project Summaries & Activities
- Outlook
- CCS
 - About CCS
 - Project Summaries & Activities
 - Outlook
- Big Data



IT Strategy

RNE's IT strategy has been developed over several years in close collaboration with the IT managers of RNE's members. While its main pillars have existed since the beginning, new challenges - such as the Rail Freight Regulation - are taken into account as they arise. The RNE systems were developed to support specific business needs of the Infrastructure Managers (IMs) at European level. In most cases, RNE's systems are fed by the national applications of the IMs, combining the respective national information/views into a Europe-wide one. As most RNE systems were developed as standalone systems, it will be a major challenge in the next years to include the existing systems into a common RNE service platform. Besides that, RNE's IT strategy is based on TAF/TAP TSI regulations, related to which RNE fulfils a major coordination role within the sector. Overall, the facilitation of the use, development and implementation of software tools in line with changing business demands at international level is a major element of RNE's IT strategy, which focuses on the following four aspects:

Business Needs and Processes

- IT follows business needs RNE WGs are defining the requirements
- RNE IT systems are just the enabler to support business needs

EU Legislation & TSIs

- RNE IT systems must be in line with EU legislation
- RNE IT systems are enablers to fulfil EU legislation
- RNE coordinates IMs in the field of IT-related legislation & TSIs

Common European IM Systems (Services for Sector)

- RNE IT systems shall use national information as much as possible
- RNE IT systems must be connected to existing legacy systems
- RNE IT systems shall be able to act as a data exchange platform

Connecting RNE IT Systems (Big Data)

- RNE IT systems shall be able to use functions from other systems
- RNE IT systems shall use the same reference files (locations, segments)

The international rail business requires strong cooperation between all parties concerned for processes to run smoothly and successfully. RNE takes its members' business needs into consideration and is also in direct contact with Railway Undertakings (RUs), an approach that has had a huge impact on the development of RNE's IT systems (for example, in the form of RNE's Big Data system, which aims to enable the exchange of harmonised reference files between different RNE and IM systems). Therefore, RNE is strongly cooperating with the ERA and RU organisations like FTE and Raildata.



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TAF/TAP TSI

The TAF/TAP TSI (Technical Specification for Interoperability relating to Telematics Applications for Freight/Passenger Services) aim to define the data exchange between individual Infrastructure Managers (IMs) and between IMs and Railway Undertakings (RUs). RNE's members have mandated RNE to provide support in the coordination of the IMs within the TAF and TAP frameworks.

In addition to data exchange, the TAF TSI describes business processes involving IMs and RUs. For this reason, the TAF TSI deeply impacts existing international rail infrastructure business processes. The TAF, or at least the IT interfaces with other partners, must be implemented in a similar way by all TAF TSI partners, including the IMs. RNE is playing a major role in coordination and is managing the Telematics Expert Groups for Operation, Planning and Reference Files. More information is available on the TAF TSI joint Sector Group webpage.

Moreover, RNE has started, with the support of the TAF TSI Steering Committee and the Joint Sector Group, the pilot for the Short Term Path Request in 2017. As the path request function must be developed Europe-wide, central coordination, as provided by RNE, is necessary. RNE has therefore developed a dedicated pilot version of PCS to support RUs and IMs to implement nationally the Short-Term Path Request function and to be able to simulate other partners. The pilot has already delivered very good

results and can be used to check national systems regarding their compliance with TAF TSI.

The RNE CCS, TIS and PCS systems are already compliant with the TAF and TAP TSIs; they are even viewed as front-runner systems for TAF and TAP. Thus, the rail sector is already exchanging several million messages within the TAF/TAP TSI framework every month.

In this context, RNE would like to thank the European Commission (INEA) for its financial contribution to TAF/TAP-related projects carried out by RNE and its members.

19 March 2001	Directive 2001/16 required railway players to specify the interoperability telematics applications for passenger and freight
18 January 2006 17 January 2007	TAF TSI developed by the Rail Sector (IM/RU) and published as a regulation in the official journal (OJ L 13). The Sector sent a SEDP (Deployment Plan) to the EC with a final implementation date in 2014
2009-2012	The Sector analysed the TAF TSI and was not able to implement it. The Sector worked out change requests. ERA and EC supported the Sector's change requests.
2012-2014	Old SEDP deemed outdated. The Sector delivered a new master plan to the EC, which was agreed. A revised TAF TSI based on the Sector's change requests was published.
2015-2021	TAF TSI implementation phases started, based on new master plan, with new implementation date in 2021. ERA established a TAF TSI reporting framework.

TAF TSI Timeline

Project Summaries & Activities

CMS FOLLOW-UP 2018

Summary

This project is a follow-up of the document system migration and possible small developments. Goals: Keep the system updated and free of bugs, and include new features based on users' or company demands.

Main Milestones

- Start: 01 January 2018
- End: 08 February 2019 general CMS update
- External audit: October 2018
- New provider: since November 2018
- Complete update: November 2018 February 2019

This project has been completed.

Outlook

In 2018, RNE accomplished many very challenging tasks and projects, many of which will also be a high priority in 2019. The first full version of RNE Big Data was implemented at the end of 2018 and some RNE systems have already been connected to it. In 2019, most other RNE systems shall be connected to RNE Big Data as well, to enable interconnection.

The detailed specifications and the necessary IT landscape for the International Timetable Redesign (TTR) project were developed together with IMs and RUs. In 2019, the IT landscape will be evaluated by the participating partners and the first results will be included in the existing implementation road map of the systems, such as PCS and the TCR tool. Furthermore, the TTR pilots will be supported by IT systems such as the first version of the ECMT (European Capacity Management Tool) and Rolling Planning in PCS. The connection of the national systems to PCS will be essential for the success of TTR and an increase in quality in the timetable process. Having approved the PCS mandatory interface, the IMs have committed themselves to implement these interfaces by 2021 or, if necessary, to maintain them manually. These developments are intended to ensure that the TTR schedules can be met.

The **Train Information System (TIS)** is a widely used tool for displaying and sharing international train running information. With several thousand train requests and

hundreds of users per day, it is by far the most used RNE system. Besides the core functions, TIS allows to process information on train running forecasts (estimated time of arrival (ETA)) of RUs and terminals as well. As the exchange of these messages is already working, RNE is now concentrating on the quality of the ETA information provided. In addition, TIS is to be completely renewed by October 2019 and will also be able to use Big Data information. The Park or Run function can be used to include short-term capacity restrictions in the TIS. With the information already available, trains affected by capacity restrictions can be identified and the affected partners can be informed. In addition, TIS is also the pilot system for merging train running information and train composition messages.

RNE has very successfully led most of the **telematics expert groups** and 2018 and will continue to do so in
2019. Especially in case of the TAF/TAP expert groups
for Reference files, Operation and Timetable, RNE will
continue to act as coordinator. In the IM CIO surveys,
RNE's work in TAF/TAP is rated as excellent and extremely
important. Furthermore, the TAF TSI pilot for short-term
path requests and TrainID will be continued until mid2020. After that, the results of the pilot shall support the
connection between PCS and the national systems. The
piloting system based on the CI and PCS is already up and
running. In addition, further developments for the TAF TSI
Reference Files were developed in cooperation with the
sector and the ERA and are now to be implemented in the

CRD (Common Reference Database) in 2019. In addition, a new version of the TAF TSI CI will be published in 2019.

In order to make the available information even more user-friendly, the **Customer Information Platform (CIP)** has been using a multi-corridor view. In addition, three other RFCs have announced their intention to join the platform. One of the major weaknesses of the system, namely that large IMs do not provide charging data, is to be resolved in 2019. Based on these commitments, the system is to be completely renewed by early 2020 in order to be able to process the new charging models as well.

Finally, **RNE** has initiated cooperation with several other sector stakeholders like FTE and Raildata but also the ERA, which has already resulted in numerous positive initiatives in the fields of Timetable, Operations and TAF TSI.

— CCS

About CCS

The Common Components System comprises 3 elements to ensure the interoperability of European railway traffic.



The Common Interface (CI) is a technical tool that supports The Common Interface (CI) is a technical tool that supports the interoperable exchange of messages. Message exchange between railway companies has been standardized: it is based on common message formats (TAF/TAP TSI) or shared message formats agreed on by two or more railway companies.



The Central Reference File Database (CRD) (a.k.a. Central Repository Domain) is a centralised database that stores Location Codes and Company Codes required by European regulation and makes them available to users. CRD is maintained through the defined processes. Their description is available on the UIC website. Locations central reference file contains primary locations and subsidiary locations. While the national location entities (mostly Infrastructure Managers) are responsible for the allocation of the Primary Location Codes, Railway Undertakings are responsible for the allocation of the Subsidiary Location Codes.



The Certification Authority (CA) provides certificates to support secure communication between partners, along with message-based encryption and signature.

CCS Activities

New versions of the Common Interface 2.0 and Central Reference Files Database 3.0 were successfully released by the new CCS software supplier, SIGNON Österreich GmbH, in August 2018.

After successfully taking over CCS from the previous software supplier, the new CCS software supplier, SIGNON Österreich GmbH, released the Common Interface 2.0 and Central Reference Files Database (CRD) 3.0. Both releases were completely reimplemented using the latest technologies, which will ensure long-term support for all users. They contain numerous improvements regarding stability and security, as well as some new functionalities.

The Common Interface 2.0 solved stability issues and issues in message exchange that were reported in previous versions. Reports from Common Interface security audits that were performed by several users in 2017 served as useful input for significant security improvements. Additionally, new versions of the Common Interface and CRD fully support certificates issued by the new Certification Authority that will supersede the existing one after 1 January 2021. Therefore it is very important for all users to plan the upgrade to the latest version of the Common Interface for the next 2 years.

CSS Outlook

After the release of the Common Interface 2.0 and extension of the licensing model, an increased number of agents from across the railway sector started to adopt the TAF/TAP TSI standard and introduce the Common Interface into their systems.

The terms and conditions laid down in the CCS transfer contract regulating the transfer from the UIC Common Components Group to RNE expired in January 2018.

With the new licensing model, the CCS became more open for the railway sector by offering higher flexibility and freedom. The number of licensed companies and parties interested in the CCS has increased and this trend is expected to continue in 2019.

Major changes and improvements performed by the new software supplier will ensure that the Common Interface will remain the leading product for TAF/TAP TSI message exchange on the market in the foreseeable future. Security is taken very seriously and is under constant review, meaning that the Common Interface has the flexibility to comply to more demanding security policies of users in the future.

The count and quality of the Reference Files (company codes and location codes) have been increased, though for both there is room for improvement, which will be done

in closer cooperation with the national entities responsible for the population.

RNE is closely cooperating with the ERA on making the Reference Files more accessible to all actors across the railway sector by granting them free access to the CRD web portal. This initiative was welcomed and supported by the sector as well as the initiative for the visual representation of Reference Files data on the map in the CRD.

Big Data

Big Data integration with other RNE IT systems will continue in 2019 in parallel with measures to improve data quality.

Since Big Data and the Geo Editor application improvement process have been successfully completed and the new Geo Editor version has been successfully released at the end of 2018, following successful integrations with other RNE IT tools such as CCS, TCR and CIP, Big Data has become an important part of the overall RNE IT environment, recognised by all RNE members and other users.



Big Data

RNE BIG DATA

Summary

Integration with RNE's other IT systems started mid-2017 with major upgrades of Big Data and its accompanying application, Geo Editor. For the integration, an iterative approach was selected where in each iteration one of RNE's IT systems was to be integrated with Big Data.

Major achievements in 2017

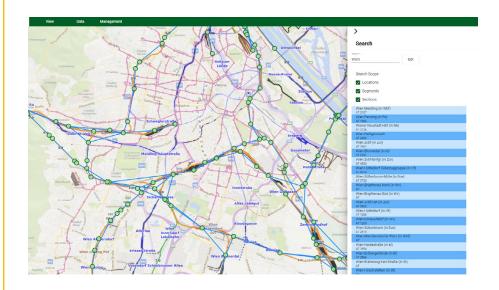
- Final release of Big Data Geo Editor is completely implemented, fully functional and available to all RNE members.
- A record high number of IMs supported the idea and provided detailed data. Big Data now contains railway network topology data from 35 IMs based on TAF TSI CRD.
- After the introduction of KPIs, data quality management was improved, supporting TAF TSI Reference Files rollout.
- Successfully completed integration with CIP.
 - RFC6 and RFC7 data is provided to Big Data and used by the CIP

All activities planned for Big Data in 2018 were completed successfully.

Big Data Outlook

Integration with TIS 2020 has already started in 2018 and will be completed in 2019 while integration with PCS is planned for 2020.

To be able to keep this positive trend and to bring Big Data closer to the users and facilitate product management, a Big Data Change Control Board is proposed to be established in 2019. Beside these activities, RNE is closely cooperating with its member companies and the ERA on investigating the possibility to use RINF as an additional data source for Big Data.



8 RAIL FREIGHT DAY

The RFD 2018 took place on 6 December 2018. More than 300 participants joined the event organised by the Austrian Presidency of the Council of the European Union, European Commission and RailNetEurope.

The 2018 Rail Freight Day provided a platform for debate on all major aspects of the rail freight sector. These included challenges in the area of intermodal competitiveness, better capacity for rail freight, the resolution of operational barriers and a better integration of rail in multimodal freight transport.

We would like to warmly thank the Austrian Presidency and European Commission, as well as all speakers and participants, for the successful event.

Due to the changes in the European Commission in 2019, the next Rail Freight Day is scheduled for the end of 2020.

















Impressions



9 FINANCIALS

- Balance Sheet
- Profit and Loss Account
- Notes to the Financial Statements
- Development of Non-Current Assets
- External Auditing Report
- Internal Auditing Report
- Project Summaries



Balance Sheet

		EQUITY AND LIABILITIES		
31. December 2018	31. December 2017		31. December 2018	31. December 2017
€	€		€	€
		A. Equity		
		I. Capital reserves		
1,422,073.10	974,945.53	1. Not appropriated	5,882,797.28	3,756,865.87
14,724.95	11,793.79			
14,724.95	11,793.79	B. Provisions		
55,256.25	35,482.39	1. Other provisions	79,931.50	61,196.70
69,981.20	47,276.18			
1,492,054.30	1,022,221.71			
		C. Liabilities		
			515.000.00	636,300.00
187,476.84	306,467.99		515,000.00	636,300.00
192,839.27	202,976.57	2. Vendor liabilities	640,692.70	583,573.44
380,316.11	509,444.56	thereof with a remaining maturity of up to one year	640,692.70	583,573.44
		3. Other liabilities	93,570.78	151,181.04
5,318,363.67	3,618,379.03	thereof taxes	31,424.49	33,092.56
5,698,679.78	4,127,823.59	thereof social security	38,100.73	32,196.91
		thereof with a remaining maturity of up to one year	93,570.78	151,181.04
21,258.18	39,071.75		1,249,263.48	1,371,054.48
		thereof with a remaining maturity of up to one year	1,249,263.48	1,371,054.48
7.211.992.26	5.189.117.05	Total Liabilities and Owner's Equity	7,211,992.26	5,189,117.05
	1,422,073.10 14,724.95 14,724.95 55,256.25 69,981.20 1,492,054.30 187,476.84 192,839.27 380,316.11 5,318,363.67 5,698,679.78	€ € 1,422,073.10 974,945.53 14,724.95 11,793.79 14,724.95 11,793.79 55,256.25 35,482.39 69,981.20 47,276.18 1,492,054.30 1,022,221.71 187,476.84 306,467.99 192,839.27 202,976.57 380,316.11 509,444.56 5,318,363.67 3,618,379.03 5,698,679.78 4,127,823.59 21,258.18 39,071.75	31. December 2018	31. December 2018 31. December 2017

Profit and Loss Account

2018-01-01 to 2018-12-31	2018	2017
	€	€
1. Turnover		
a) Domestic turnover	122,977.05	122,977.05
Membership fees	-112,663.55	-72,978.34
Membership contribution to captital reserve	77,446.42	84,300.49
Others	87,759.92	134,299.20
b) Foreign turnover		
Membership fees	2,197,567.45	2,191,590.95
Membership contribution to captital reserve	-2,013,267.86	-1,300,557.04
Others	841,624.52	774,986.66
	1,025,924.11	1,666,020.57
	1,113,684.03	1,800,319.77
2. Other turnover		
a) EU funding	2,680,927.98	2,133,835.76
b) Others	2,100.00	2,100.00
c) Income from the disposal of fixed assets	849.28	156.82
d) Other	16,520.64	18,393.69
	2,700,397.90	2,154,486.27
3. Cost of purchased services	823,147.08	1,306,199.87
4. Personnel expenses		
a) Salaries	1,633,067.21	1,409,577.83
b) Social expenses	345,293.47	255,687.34
by social expenses	1,978,360.68	1,665,265.17
5. Depreciation	588,207.97	518,868.08

2018-01-01 to 2018-12-31	2018	2017
	€	€
6. Other expenses	425,437.53	465,098.79
7. Operating profit	-1,071.33	-625.87
8. Other interest and similar revenues	1,248.33	654.87
9. Financial profit	1,248.33	654.87
10. Earnings before taxes, Loss from operating activities	177.00	29.00
11. Taxes on income	177.00	29.00
12. Earnings after taxes	0.00	0.00
13. Net profit	0.00	0.00
14. Release of capital reserves	0.00	0.00
15. Balance sheet profit	0.00	0.00

Notes to the Financial Statements

Accounting and valuation methods General principles

The financial statements have been prepared in accordance with **Generally Accepted Accounting Principles** and the **general provision** that the financial statements have to present a true and fair view of the financial and assets position and results of operations.

The principle of **completeness** was used during the preparation of the financial statements.

All assets and liabilities were **measured individually** and the **going concern** assumption was used.

The **prudence principle** was applied. Only realised gains were recognised; however, provision was made for all known and probable losses, irrespective of whether realised or not.

Non-current assets

Intangible assets

The data processing programs are being written off over 3 years.

Tangible assets

Limited life assets are **evaluated** at acquisition cost less depreciation. Low value assets (acquisition costs up to EUR 400.00) are entirely written off in the year of acquisition.

Regular depreciation fixed assets is calculated on a straight-line basis.

The period of depreciation corresponds to the expected useful life and is set as follows:

	Number of years
Office and other equipment	3-5
Office furniture	5
Office machines, ICT systems	3 – 5
Structural investment in third-party buildings	5 - 10

Receivables and other assets

Receivables and other assets are valued at their **nominal value** as far as no recognizable individual risk has been assessed resulting in a lower value.

The maturity of receivables is taken into consideration by discounting.

Provisions

Other provisions

Under the prudence principle provisions are considered for all risks and probable losses, assuming the resulting loss may be reasonably estimated.

Liabilities

All **liabilities** are recorded at the amount payable considering the principle of prudence.

Currency conversion

Foreign currency receivables and liabilities are converted at the ECB-fixing exchange rate prevailing at the balance sheet date.

Changes of the accounting and valuation principles

The accounting and valuation principles applied so far have remained unchanged during the drawing up of these financial statements.

In 2018, a reclassification was done between the items 'Other expenses' and 'Cost of purchased services'. The respective expense items of the year 2017 have been adapted to the new classification scheme to offer better comparability.

Notes to the Balance Sheet and the Profit and Loss Account

Notes to the Balance Sheet Non-current assets

As regards changes in non-current assets and a breakdown of annual depreciation by individual asset items, see Development of Non-Current Assets.

Path Coordination System (PCS) software rights

The Path Coordination System (PCS - including developments in the field of Timetabling) is a software tool for railway companies that was developed under the leadership of RNE in cooperation with several European railway companies. The full rights of utilisation are in complete ownership of RNE.

The Path Coordination System (PCS) is an international path request coordination system for Path Applicants, e.g. Railway Undertakings (RUs), Infrastructure Managers (IMs) and Allocation Bodies (ABs). The internet-based application optimises international path coordination by ensuring that path requests and path offers are harmonised by all involved parties. Input for international path requests needs to be placed only once into one system – either into the domestic application or directly into the PCS.

Train Information System (TIS) software rights

The Train Information System (TIS - including developments in the field of Operations) is a software tool for railway companies that was developed under the leadership of RNE in cooperation with several European railway companies. The full rights of utilisation are in complete ownership of RNE.

The Train Information System (TIS) is a web-based application that supports international train management by delivering real-time train data concerning international passenger and freight trains and to some extent national freight trains as well. The relevant data is obtained directly from the Infrastructure Managers' systems. At the time being it is regarded

as the most advanced tracking and tracing online train information system in Europe for monitoring and steering the international logistic chains.

Charging Information System (CIS) software rights

The Charging Information System (CIS) is a software tool for Applicants, Infrastructure Managers (IMs) and Allocation Bodies (ABs). It provides fast information on charges related to the use of European rail infrastructure and estimates the price for the use of international train paths. It is an umbrella application for the various national rail infrastructure charging systems.

The full rights of utilisation are in complete ownership of RNE.

Common Components System (CCS)

The Common Components System (CCS) comprises the Central Reference Files Database (CRD) and Common Interface (CI) as well as the central Certification Authority. The CCS is used by various actors in railway sector, including but not limited to, Infrastructure Managers and Railway Undertaking companies, to ensure the interoperability of international traffic. It is the reference implementation of the TAF TSI standard as defined in EC regulation 1305/2014. After it was transferred from the UIC CCG to RNE, the full rights of utilisation have been in complete ownership of RNE since 1 January 2015.

Customer Information Platform (CIP)

The Customer Information Platform (CIP) is an interactive, internet-based information tool. By means of a Graphical User Interface, CIP provides precise information on the routing, terminals, infrastructure investment projects and maintenance works as well as basic track properties of the participating Rail Freight Corridors (RFCs).

At the request of several RFCs, RNE took over the ownership, hosting and maintenance of the CIP from the Corridor Rhine-Alpine (RFC1), thereby enabling it to evolve into a multi-corridor tool providing harmonised information and communication processes. RNE shall

further develop the CIP according to the decisions of the CIP Change Control Board and following the approval, if necessary, of the RNE General Assembly.

At the moment, the CIP displays information on railway infrastructure in 24 European countries covering the network of 8 out of 11 RFCs. The remaining RFCs are scheduled to implement the CIP by the end of 2020.

International Train Numbering Database (ITNDB)

The International Train Numbering Database (ITNDB) is a software tool for Infrastructure Managers designed to handle the uniqueness of train numbers for European international freight traffic. It has been developed under the leadership of RNE together with several European railway companies. The full rights of utilisation are in complete ownership of RNE.

Temporary Capacity Restrictions (TCR)

The Temporary Capacity Restriction Tool (TCR – including developments in the field of Timetabling) is a software tool for railway companies which aids in the coordination and publication of Temporary Capacity Restrictions (TCRs), to avoid negative impact on the rail network in terms of commercial traffic, but still keep infrastructure in good condition. The software was developed under the leadership of RNE in cooperation with several European railways companies. The full rights of utilisation are in complete ownership of RNE.

Receivables and other assets

	Total €	thereof maturity up to1 year €
Receivables and other assets		
Trade receivables	187,476.84	187,476.84
Previous year	306,467.99	306,467.99
Other receivables	192,839.27	192,839.27
Previous year	202,976.57	202,976.57
Sum Receivables	380,316.11	380,316.11
Previous year	509,444.56	509,444.56

Provisions

Other provisions have developed as follows:

	Status 2018-01-01 €	Usage €	Termination €	Allocation €	Status 2018-12-31 €
Other provisions					
Provision for accrued vacation	54,406.33	0.00	0.00	18,824.29	73,230.62
Provision for extra hours	690.37	0.00	189.49	0.00	500.88
Provision for consulting fees	6,100.00	6,100.00	0.00	6,200.00	6,200.00
	61,196.70	6,100.00	189.49	25,024.29	79,931.50

Liabilities

Total Liabilities Previous year	1,249,263.48 1,371,054.48	1,249,263.48 1,371,054.48
Previous year	32,196.91	32,196.91
thereof social security	38,100.73	38,100.73
Previous year	33,092.56	33,092.56
thereof taxes	31,424.49	31,424.49
Previous year	151,181.04	151,181.04
Other liabilities	93,570.78	93,570.78
Previous year	583,573.44	583,573.44
Vendor liabilities	640,692.70	640,692.70
Previous year	636,300.00	636,300.00
Advance payments received for orders	515,000.00	515,000.00
Liabilities		
	Total €	thereof maturity up to1 year €
	T. L.1	the same for a track of the contract of the co

Notes to the Profit and Loss Account

The profit and loss account has been drawn up in accordance with the total-cost approach.

Managing Board Members

During the financial year 2018 Managing Board Members were

- Harald Hotz (ongoing)
- Ann Billiau (ongoing)
- Sture Mikael Eriksson (ongoing)
- Mirosław Kanclerz (ongoing)
- Paul Mazataud (ongoing)
- Augustinus de Mol (ongoing)
- Péter Rónai (ongoing)
- Bettina Wunsch-Semmler (ongoing)

Employees of the company

In the financial year 2018 RailNetEurope had 25 employees on average, thereof 2 seconded by Members of RailNetEurope and 23 directly employed by RailNetEurope (thereof 1 part-time employee with 75%, 1 part-time employee with 74%, 1 part-time employee with 72%, 1 part-time employee with 68%, 1 part-time employee with 50% and 1 part-time employee with 40% of the normal working time).

Warsaw, 29 May 2019

Harald Hot

Ann Billiau

Sture Mikael Erikson

Mirosław Kanclerz

Paul Mazataud

Augustinus de Mol

Péter Rónai

Bettina Wunsch-Semmler

Members of the Managing Board

Schedule of Development of Non-Current Assets

	Puchase / Production cost			Cumulated depreciation		
	2018-01-01 2018-12-31 €	Additons Disposals €	2018-01-01 2018-12-31 €	Depreciations Write-ups €	Disposals €	2018-01-01 2018-12-31 €
Non-Current Assets Intangible Assets Concessions and industrial property rights and similar rights	2,497,527.59	1,008,657.94	1,522,582.06	561,485.37	574,666.10	974,945.53
	2,931,474.43	574,711.10	1,509,401.33	0.00		1,422,073.10
		0.00				
Tangible Assets Structural investment n third-party buildings	14,934.12	6,490.00	3,140.33	3,558.84	0.00	11,793.79
	21,424.12	0.00	6,699.17	0.00		14,724.95
		0.00				
thereof fixtures In foreign buildings	14,934.12	6,490.00	3,140.33	3,558.84	0.00	11,793.79
	21,424.12	0.00	6,699.17	0.00		14,724.95
		0.00				
Other equipment, furnitures and fixtures	160,188.99	51,595.37	124,706.60	31,527.63	37,476.73	35,482.39
	174,013.75	37,770.61	118,757.50	0.00		55,256.25
	175,123.11	58,085.37	127,846.93	35,086.47	37,476.73	47,276.18
	195,437.87	37,770.61	125,456.67	0.00		69,981.20
Total asset schedule	2,672,650.70	1,066,743.31	1,650,428.99	596,571.84	612,142.83	1,022,221.71
	3,126,912.30	612,481.71	1,634,858.00	0.00		1,492,054.30

External Auditing Report

Audit Opinion

We have audited the financial statements of

RailNetEurope - Vereinigung zur Förderung des internationalen Verkehrs auf der Eisenbahninfrastruktur, Wien.

These financial statements comprise the statement of financial position as of December 31, 2018, the income statement for the fiscal year then ended and the notes.

Based an our audit the accompanying financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Association as of December 31, 2018 and its financial performance for the year then ended in accordance with Austrian Generally Accepted Accounting Principles.

Basis for Opinion

We conducted our audit in accordance with Austrian Standards an Auditing. Those standards require that we comply with International Standards an Auditing (ISAs). Our responsibilities under those regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Accosiation in accordance with the Austrian General Accepted Accounting Principles and professional requirements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation of the financial statements in accordance with Austrian Generally Accepted Accounting Principles, for them to present a true and fair view of the assets, the financial position and the financial performance of the Association and for such internal controls as management determines are necessary to enable the

preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Association's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Association or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Austrian Standards on Auditing, which require the application of ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

• identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion,

- forgery, intentional omissions, misrepresentations, or the override of internal control.

 obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion and the effectiveness of the Association's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude an the appropriateness of management's use of the going concern basis of accounting and, based an the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Association to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the General Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the General Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Vienna, 26 March 2019



Internal Auditing Report

To the General Assembly of RailNetEurope

Based on the external audit of Merkur Control we have audited the financial statements of RailNetEurope for the year 2018. Our responsibility is to express an opinion on these financial statements based on our audit. We have performed the audit to obtain reasonable assurance that the financial statements are free of material misstatement. The audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. We believe that our audit provides a reasonable basis for our opinion set out below.

The annual accounts have been prepared in accordance with generally accepted accounting principles and the general provision that the financial statements have to present a true and fair view of the financial and assets position and the results of operations.

We recommend to the General Assembly that the financial statements be adopted and the Managing Board discharged.

Warsaw, 29th May 2019

Carmen Theler



De la companya di mangantan di

Alfred Lutschinger



Alfal Stating

Claire Hamoniau



UHamoria

"We would like to warmly thank Claire Hamoniau, who served as RNE Internal Auditor for many years, until December 2018."

Project Summaries Funding

RNE EU-FUNDED PROJECT 2014-AT-TM-0082-S

Summary

The goal of the project is to obtain a refunding of part of the costs required to develop guidelines and common procedures for TAF/TAP and the RFCs.

Main Milestones

- Start: 10 October 2014
- Acceptance of Strategic Action plan: 3 December 2015
- Delivery of technical final report: July 2018
- Delivery of financial report: July 2018
- End: Closure letter received: 13 November 2018

This project has been successfully completed.



RNE AND RFC MEMBERS EU-FUNDED PROJECT 2016-AT-TM-0043-S

Summary

The goal of the project 'Shifiting Freight2Rail – innovative international TT process and increased real time information for customer satisfaction' is to obtain a refunding of part of the costs required to develop guidelines and common procedures for TAF/TAP and the new TTR project. In addition, it includes the effort related to the management of the TAF TSI experts group chaired by RNE and the TAF TSI SMO. The funding covers RNE's efforts for the development of the defined processes.

Main Milestones

- Start: 1 July 2017
- Acceptance of Action Status Report: 11 April 2019
- Delivery of final report: June 2021
- Expected acceptance of final report: October 2021
- End: Final Payment: November 2021

This project is ongoing.

RNE CEF FUNDING PROJECT 2018-EU-TM-0063-S

Summary

The goal of the project is to obtain a refunding of part of the costs of the TTR process development, further developments of the TCR tool, maintenance and further development of TAF/TAP TSI Common Components, PCS Next Generation, basic system for TM, TPM and improvement of TIS. In addition it includes the effort related to the management of the TAF TSI experts group chaired by RNE and the TAF TSI SMO in 2021/22. RNE is coordinating the project for RNE and 8 RNE Members.

Main Milestones

- Start: 1 January 2019
- Expected acceptance of the grant-agreement: May 2019
- Expected delivery of final report: November 2023
- Expected acceptance of final report: March 2024
- End: Final Payment: April 2024

This project is ongoing.



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