RNE
RailNetEurope

ANNUAL REPORT
2017

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RailNetEurope

① FOREWORD BY PRESIDENT AND SECRETARY GENERAL

2017 and the beginning of 2018 have again been busy periods for RailNetEurope (RNE). Ongoing activities and new developments within the international business of Infrastructure Managers (IMs), Allocation Bodies (ABs) and Rail Freight Corridors (RFCs) that make up RNE, have brought with them some major challenges.

Let us now turn to some highlights of the last 16 months.

■ Together with Forum Train Europe (FTE) we have made great progress in the 'Redesign of the International Timetabling Process' (TTR project). After approval of the TTR concept by the RNE General Assembly and the FTE Plenary in early summer 2017, the TTR project is gradually being implemented and three pilot applications are already running on Rail Freight Corridors.

The TTR project also includes the important topic of Temporary Capacity Restriction (TCR). In this context we would like to highlight that, together with other sector players, we were able to come up with a consolidated input to the recast of the Annex VII of the Directive 2012/34/EU. In addition, RNE has introduced and chaired a new task force in 2017, which has started the implementation of several measures to improve the quality of current timetables and path offers. As a result, communication between IMs and RFCs has improved and important developments for the Path Coordination System (PCS) have been triggered. We would like to take this opportunity to thank all colleagues who have contributed to this huge achievement.

■ 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 you already count in the future priority project 11, Contingency Management).

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.

Internally, we introduced the finance and administration software BMD, which has posed some challenges during the introduction phase. However, these efforts are starting to pay off already, even though some more bugs need fixing, and we have been reassured that this experience is perfectly common in such projects.

Financially, the budget commitments in 2017 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

JOACHIM KROLL,
SECRETARY GENERAL

② ASSOCIATION

- Approach & Structure
- 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.

Co-financed by the European Union
Connecting Europe Facility

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 Working Group

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 | IT | RFC |

Working Groups

| Sales & Timetabling | Performance & Traffic Management | IT Strategy | Legal Matters | Network Statements & CID |

Corridor Management

COORDINATION PLATFORM FOR RFCs

— Managing Board

RNE Managing Board, Secretary General, Chief Information Officer

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

Back row, left to right:
Harald Reisinger (RNE Chief Information Officer), Mirosław Kanclerz (Network Statement & Corridor Information Document), Mikael Eriksson (Train Performance Management), Joachim Kroll (RNE Secretary General), Péter Rónai (Legal Matters)

Front row, left to right:
Paul Mazataud (Traffic Management), Guus de Mol (Sales & Timetabling), Bettina Wunsch-Semmler (Corridor Management & External Relations) Harald Hotz (RNE President)

HARALD HOTZ
ÖBB Infrastructure AG

RNE PRESIDENT

MIKAEL ERIKSSON
Trafikverket

Train Performance Management

RNE VICE PRESIDENT

PAUL MAZATAUD
SNCF Réseau

Traffic Management

RNE VICE PRESIDENT

ANN BILLIAU
INFRABEL

IT

RNE VICE PRESIDENT

MIROSŁAW KANCLERZ
PKP Polskie Linie Kolejowe S.A

Network Statement &
Corridor Information Document

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

Paul Mazataud and Mikael Eriksson joined the Managing Board as new members and the following proposal regarding the RNE MB portfolio was agreed on at the General Assembly 2017:

- Harald Hotz (ÖBB-Infrastruktur AG): RNE President
- Ann Billiau (Infrabel): IT
- Mikael Eriksson (Trafikverket): Train Performance Management
- Miroslaw Kanclerz (PKP PLK): Network Statement / Corridor Information Document
- 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

Tel.: +43 1 907 62 72 00
Fax: +43 1 907 62 72 90
E-mail: joachim.kroll@rne.eu

HARALD REISINGER

CHIEF INFORMATION OFFICER

Tel.: +43 1 907 62 72 23
E-mail: harald.reisinger@rne.eu

Since 2004, the Joint Office (JO) of RailNetEurope (RNE), headed by a Secretary General, has been located in Vienna, Austria.

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 24 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.

Joint Office Contacts

RNE RFC Managers

ZITA KOOPS-ÁRVAI

RFC SENIOR MANAGER &
PROJECT MANAGER

Tel.: +43 1 907 62 72 29
zita.koops-arvai@rne.eu

MILOSLAV KOGLER

RFC SENIOR MANAGER

Tel.: +43 (0)664 8842 48 08
miloslav.kogler@rne.eu

SUSANNE KOPFER

RFC NETWORK ASSISTANT

Tel.: +43 1 907 62 72 24
susanne.kopfer@rne.eu

RNE Sales & Timetabling

PHILIPP KOISER

SALES & TIMETABLING
MANAGER

Tel.: +43 (0)664 884248 14
philipp.koiser@rne.eu

**ANDRIUS
BARTUŠKEVIČIUS**

TIMETABLING &
TCR MANAGER

Tel.: +43 (0)664 884 248 07
andrius.bartuskevicius@rne.eu

SEBASTIÁN ČAREK

TTR ASSISTANT

Tel.: +43 (0)676 9713 179
sebastian.carek@rne.eu

**GERALD
BURGSTEINER**

TIMETABLING &
TCR MANAGER

(Until Dec 2017)

MARIO TOMA

SENIOR TIMETABLE IT
MANAGER

Tel.: + 43 (0)664 884248 12
mario.toma@rne.eu

MÁTÉ BAK

HEAD OF PCS

Tel.: +43 (0)664 884248 03
mate.bak@rne.eu

JORGE CAMPO

PCS FUNCTIONAL MANAGER

Tel.: +43 (0)664 884248 09
jorge.campo@rne.eu

RNE Performance & Traffic Management

JOSEF STAHL

HEAD OF TIS & TPM

Tel.: +43 (0)664 884248 04
josef.stahl@rne.eu

MIKAELA OHLIN

TRAFFIC MANAGEMENT
MANAGER

Tel.: 43 (0)664 884 248 16
mikaela.ohlin@rne.eu

IVANA TOMEKOVA

TRAIN PERFORMANCE
MANAGEMENT MANAGER

Tel.: +42 1 905 717 031
ivana.tomekova@rne.eu

SEMKO MERDAN

REPORTING EXPERT

Tel.: +43 (0)664 884248 12
semko.merdan@rne.eu

Administration & Finance

ELISABETH GRUBER

ADMINISTRATION MANAGER

Tel.: +43 (0)664 884248 12
elisabeth.gruber@rne.eu

KARIN HÖTZL

FINANCE MANAGER

Tel.: +43 (0)664 884248 13
karin.hoetzl@rne.eu

SUSANNE KOCH

MANAGEMENT ASSISTANT

Tel.: +43 (0)664 884248 13
susanne.koch@rne.eu

DESISLAVA TANEVA

MANAGEMENT ASSISTANT

Tel.: +43 1 907 62 72 00
assistant@rne.eu

EVA WEBER

ADMINISTRATION & FINANCE
MANAGER

(Until May 2017)

RNE Supporting Services

TSVETAN TANEV

SENIOR LEGAL ADVISER

Tel.: +43 (0)664 884248 11
tsvetan.tanev@rne.eu

JAMIE JONES

COMMUNICATIONS MANAGER

Tel.: +43 (0)664 884248 13
jamie.jones@rne.eu

JAKOB LINDSBERGER

COMMUNICATIONS MANAGER
(Until March 2018)

HOLGER EILETZ

PROJECT MANAGER

Tel.: +43 (0)664 884248 13
holger.eiletz@rne.eu

VOJKAN STEFANOVIĆ

COMMON COMPONTENTS MANAGER AND IT ARCHITECT

Tel.: +43 (0)664 884248 12
vojkan.stefanovic@rne.eu

STEPHAN BREU

CCS GENERAL MANAGER

(Until mid 2017)

DANIEL DREXLER

IT SERVICE DESK MANAGER & CIS TECHNICAL MANAGER

Tel.: +43 (0)664 884248 06
daniel.drexler@rne.eu

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	4.846km	link	
AUSTRIA AND HUNGARY	GySEV-Raaberbahn Raab- Oeden-burg-Ebenfurter Eisenbahn AG	509 km	link link	
BELGIUM	Infrabel	3.631 km	link	
BOSNIA AND HERZEGOVINA	ŽRS - Željeznice Republike Srpske	425 km	link	
BULGARIA	National Railway Infrastructure Company of Bulgaria (NRIC)	4.023 km	link	
CROATIA	HŽ Infrastruktura d.o.o.	2.605 km	link	
CZECH REPUBLIC	SŽDC, Správa železnicní dopravní cesty, státní organizace	9.459 km	link	
DENMARK	BDK - Banedanmark	2.132 km	link	
FRANCE	SNCF Réseau (SNCF)	29.213 km	link	

Country	Name	Length of network	Web	Logo
FRANCE	LISEA - LGV SEA Tours-Bordeaux	340 km	link	
GERMANY	DB Netz AG	33.281 km	link	
HUNGARY	MÁV Magyar Államvasutak Zrt. - (MÁV Hungarian State Railways Co.)	7.273 km	link	
HUNGARY	VPE Vasúti Pályakapacitás-elosztó Kft.		link	
ITALY	RFI - Rete Ferroviaria Italiana S.p.A.	24.278 km	link	
LITHUANIA	Lietuvos geležinkeliai	1.868 km	link	
LUXEMBOURG	ACF – Administration des Chemins de Fer		link	
LUXEMBOURG	CFL - Société Nationale des Chemins de Fer Luxembougeois	275 km	link	
MACEDONIA	Makedonski Železnici Infrastruktura	925 km	link	
NETHERLANDS	ProRail B.V.	7.028 km	link	
NORWAY	Bane NOR	4.170 km	link	
POLAND	PKP Polskie Linie Kolejowe S.A.	18.427 km	link	
PORTUGAL	Infraestruturas de Portugal, S.A.	2.553 km	link	

Country	Name	Length of network	Web	Logo
ROMANIA	Compania Naţională de Căi Ferate 'CFR' SA - Căile Ferate Române	10.600 km	link	
SERBIA	ŽS – Željeznice Srbije	3.739 km	link	
SLOVAKIA	Železnice Slovenskej Republiky	3.624 km	link	
SLOVENIA	Slovenske železnice-Infrastruktura, d.o.o.	1.228 km	link	
SPAIN	Administrador de Infraestructuras Ferroviarias (ADIF)	15.326 km	link	
SPAIN	Línea Figueras Perpignan S.A.	44 km	link	
SWEDEN	Trafikverket Swedish Transport Administration	12.000 km	link	
SWITZERLAND	BLS AG	449 km	link	
SWITZERLAND	SBB Infrastructure	3.030 km	link	
SWITZERLAND	Trasse Schweiz AG		link	
UNITED KINGDOM	HS1 - HighSpeed1 Ltd.	109 km	link	
UNITED KINGDOM	Network Rail	15.779 km	link	

Associate Members

Corridor	Name	Logo
RFC 1	Rhine-Alpine Corridor	
RFC 2	North Sea-Mediterranean Corridor	
RFC 3	Scandinavian-Mediterranean Corridor	
RFC 4	Atlantic Corridor	
RFC 5	Baltic-Adriatic Corridor	
RFC 6	Mediterranean Corridor	
RFC 7	Orient/East-Med Corridor	
RFC 8	North Sea-Baltic Corridor	
RFC 9	Czech-Slovak/Rhine-Danube Corridor	
RFC 11	Amber 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.

ADMINISTRATION
MANAGER:
ELISABETH GRUBER

Tel.: +43 (0)664 884248 12
elisabeth.gruber@rne.eu

	KPI Definition	Monitoring & Reporting	Follow-up
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

RNE KPIs

Summary

The goal of the project was to revise the RNE KPI Management process in order to make it more efficient, to set up a new, optimised set of KPIs and deliver a new RNE KPI Management Manual.

Main Milestones

Start: 28 August 2014

First draft list of revised KPIs: 23 June 2015

Second draft list of revised KPIs: 27 October 2015

Approval of the new concept by the RNE GA: 3 December 2015

End: Approval of new RNE KPI Management Manual: 25 February 2016

This project has been successfully completed.

The RNE KPI Manual was updated in 2017 and all updates approved in December 2017.

Updates included minor adjustments of calculation methods where necessary as well as the adoption of a qualitative/market aspect which shall provide background information to be considered when evaluating RNE KPI results.

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)

Results of RNE KPIs in 2016

The below picture displays the results of the four main groups of KPIs for 2017:

PROJECT MANAGEMENT

87% 2017 **89%** 2016

- 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

100% Budget met, funding target surpassed (2017) **100%** Budget met (2017)

- Budget: ratio of planned budget to final figures
- EU funding: ratio of planned funding to received funding (funding not calculated in 2016)

RNE MEMBER COMPLIANCE WITH THE CORE PROCESSES

82% 2017 **80%** 2016

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

IT

100% 2017 **98%** 2016

- 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, thus for international rail business.

Start

Implement

Plan (project plan)

Check

Completion

Follow-up & evaluation (optional)

RNE Project Management Process
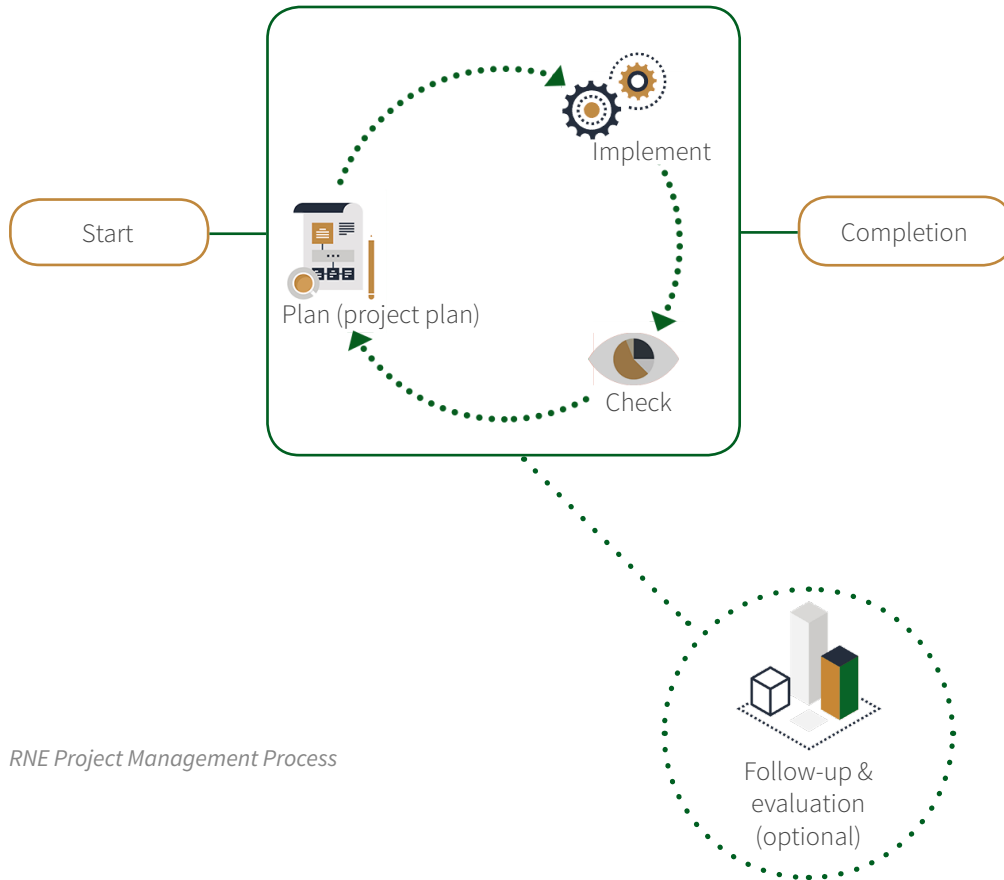
Activities

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 2017

Redesign of the International Timetabling Process (TTR) (afterwards the TTR continued as programme with five connected projects)
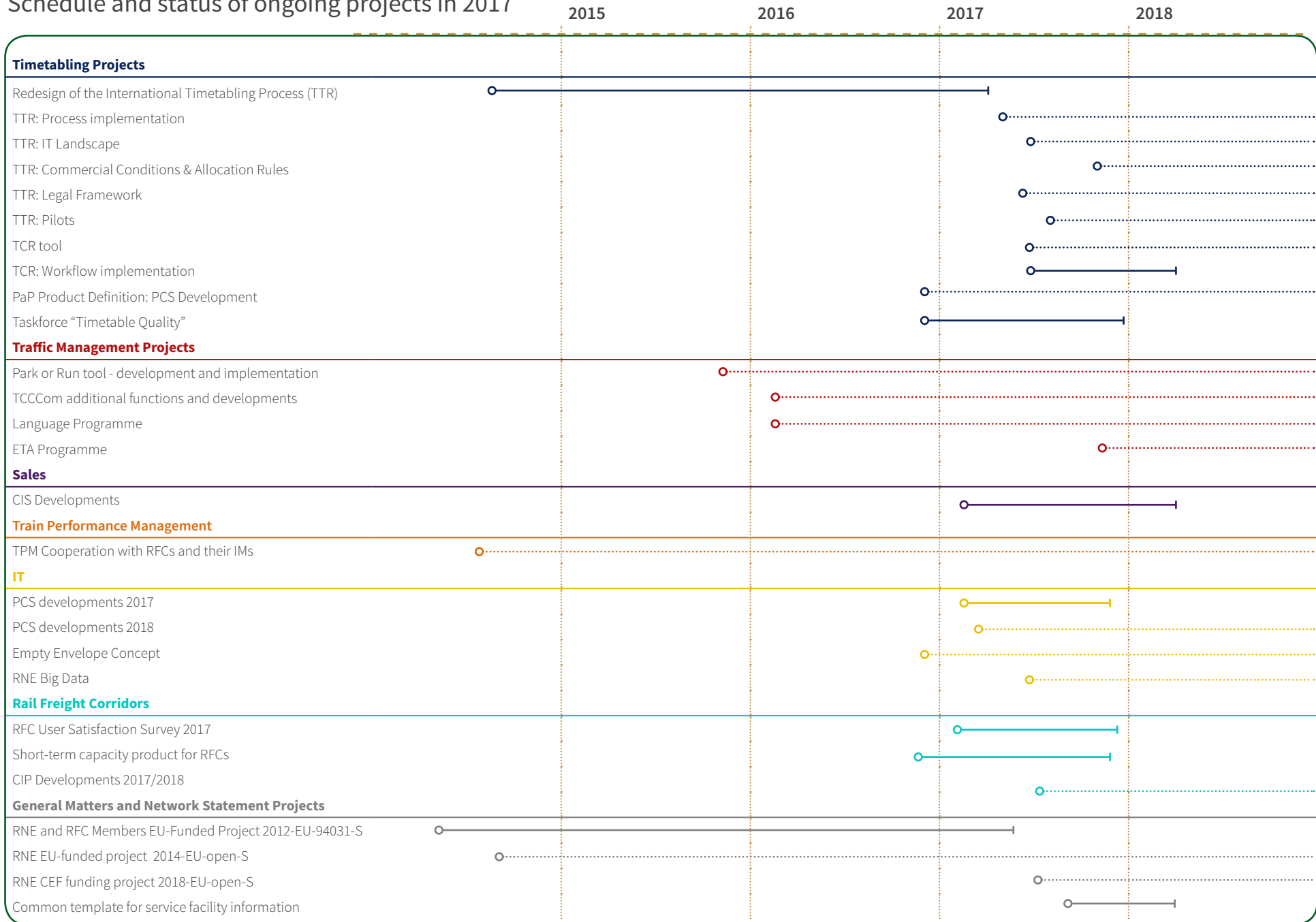
TCR: Workflow implementation

PCS Developments 2017

Short-term capacity product for RFCs

RFC User Satisfaction Survey 2017

RNE and RFC Members EU-Funded Project 2012-EU-94031-S

Schedule and status of ongoing projects in 2017

	2015	2016	2017	2018

Timetabling Projects
- Redesign of the International Timetabling Process (TTR)
- TTR: Process implementation
- TTR: IT Landscape
- TTR: Commercial Conditions & Allocation Rules
- TTR: Legal Framework
- TTR: Pilots
- TCR tool
- TCR: Workflow implementation
- PaP Product Definition: PCS Development
- Taskforce "Timetable Quality"

Traffic Management Projects
- Park or Run tool - development and implementation
- TCCCom additional functions and developments
- Language Programme
- ETA Programme

Sales
- CIS Developments

Train Performance Management
- TPM Cooperation with RFCs and their IMs

IT
- PCS developments 2017
- PCS developments 2018
- Empty Envelope Concept
- RNE Big Data

Rail Freight Corridors
- RFC User Satisfaction Survey 2017
- Short-term capacity product for RFCs
- CIP Developments 2017/2018

General Matters and Network Statement Projects
- RNE and RFC Members EU-Funded Project 2012-EU-94031-S
- RNE EU-funded project 2014-EU-open-S
- RNE CEF funding project 2018-EU-open-S
- Common template for service facility information

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 on the right), most of them directly connected to RNE business.

The group aims to:
- commonly support and accelerate the defined priority activities,
- act as escalation level,
- achieve dedicated funding for priority activities.

Ten 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)

③ CORRIDOR MANAGEMENT

General Information

Since its establishment in 2004, it has been RNE's aim to harmonise the international railway business core processes used by Infrastructure Managers (IMs) and Allocation Bodies (ABs).

Since traffic does not usually start and end on an RFC exclusively, efficient and harmonised interfaces to the existingprocesses 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 ofseveral 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 toapply for Associate Membership in the organisation to further strengthen cooperation.

In order to provide administrative support, and to stabilise and professionalise the joint work of the RFC Network, RNE created a new position called `RFC Network Assistant` upon the request of the RFCs and hired Ms Susanne Kopfer in this role in February 2018. Most importantly, she provides support concerning the joint tasks and meetings to the rotating chairperson of the RFC Network.
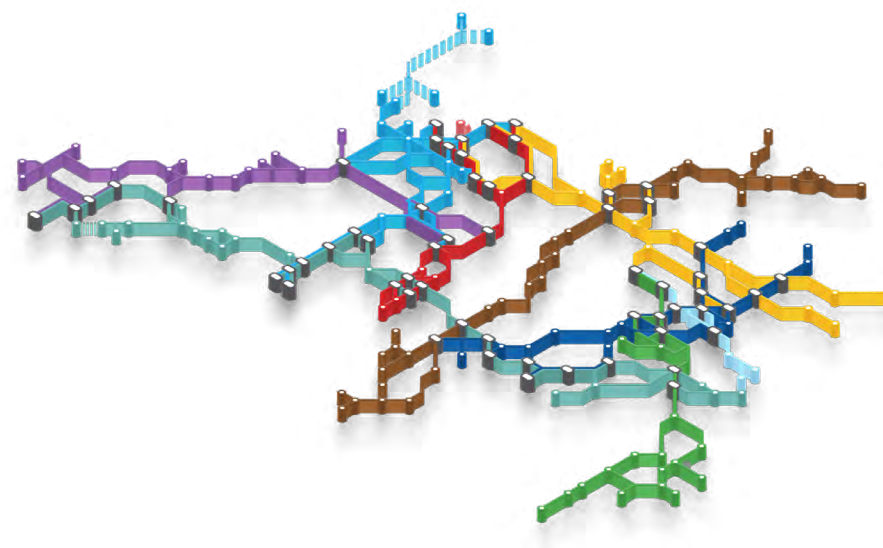
RFC SENIOR MANAGER & PROJECT MANAGER
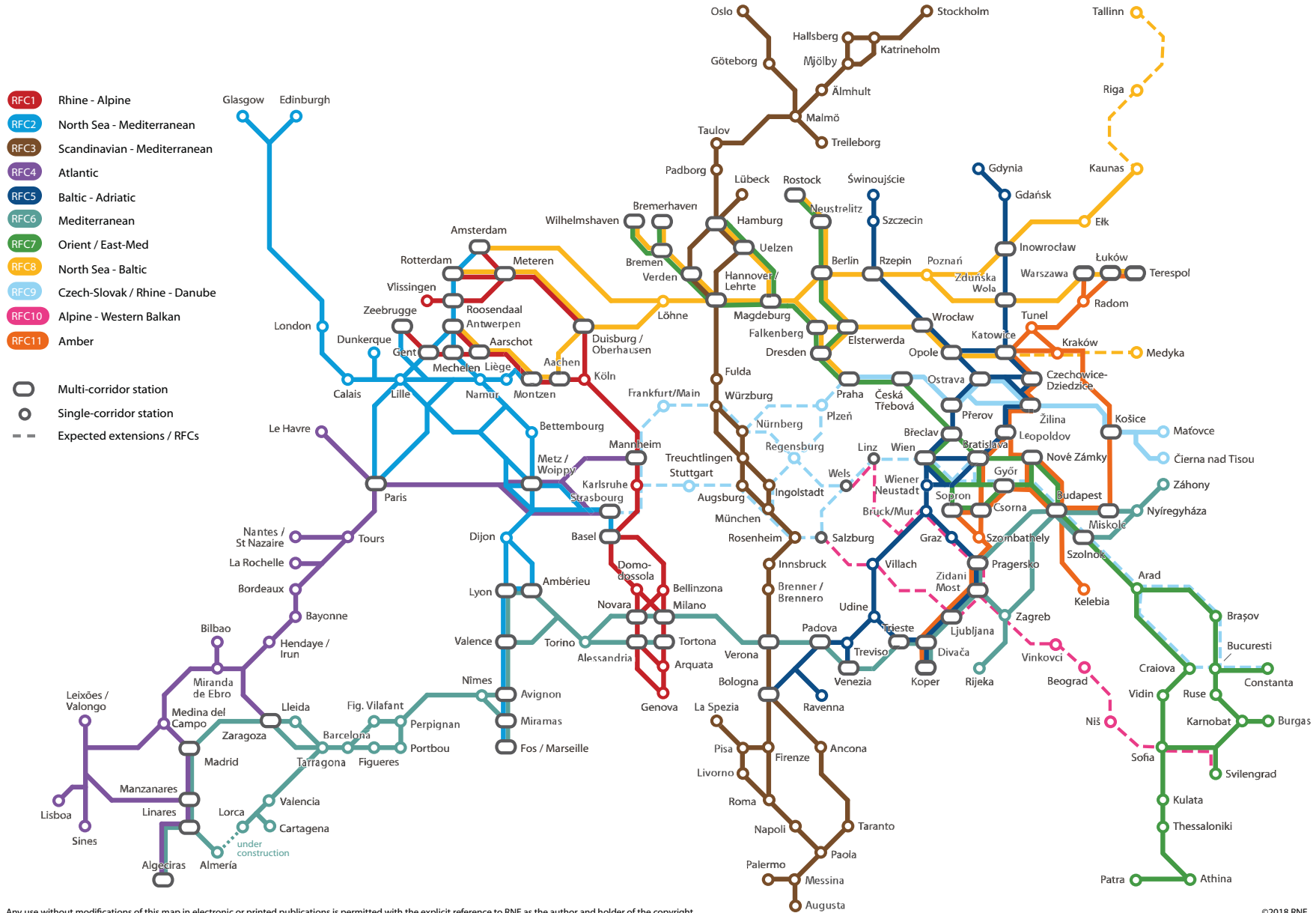**ZITA KOOPS-ÁRVAI**
zita.koops-arvai@rne.eu

RFC SENIOR MANAGER
MILOSLAV KOGLER
miloslav.kogler@rne.eu

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

Corridor Map

Legend:

RFC1	Rhine - Alpine
RFC2	North Sea - Mediterranean
RFC3	Scandinavian - Mediterranean
RFC4	Atlantic
RFC5	Baltic - Adriatic
RFC6	Mediterranean
RFC7	Orient / East-Med
RFC8	North Sea - Baltic
RFC9	Czech-Slovak / Rhine - Danube
RFC10	Alpine - Western Balkan
RFC11	Amber

- Multi-corridor station
- Single-corridor station
- – – Expected extensions / RFCs

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Project Summaries

RFC USER SATISFACTION SURVEY 2017

Summary

Article 19 (3) of the Regulation 913/2010 concerning a European rail network for competitive freight requires the Management Board of the RFCs to conduct a satisfaction survey of the users of the corridor and to publish the results once a year. On the basis of the first three waves, the project aimed for the continuation of the execution of the yearly RFC User Satisfaction Survey. The questionnaire was made considerably shorter in order to make it more time-efficient for the respondents to fill it in. At the same time, it was ensured that the results remain comparable with those of the previous years.

Main Milestones
- Start: Approval of project proposal: 16 February 2017
- Kick-off meeting: 16 March 2017
- Field phase: 12 September – 18 October 2018
- End: Provision of results: 3 November 2017

This project has been successfully completed.

SHORT-TERM CAPACITY PRODUCT FOR RFCS

Summary

Based on a request of RFC Network to conduct a feasibility study on improvement of RFCs' short-term capacity product, an opinion-gathering procedure was conducted within the C-OSS Community. As a next step, a project structure was established, under which RNE - in close cooperation with C-OSS managers and S&TT of involved IMs –aim to provide the RFCs and their customers with an accurate definition of a more attractive short-term capacity product covering the description of the related process and required IT developments

Main Milestones

- Start: Opinion-gathering within the C-OSS Community: 9 November 2016
- Collection of inputs from C-OSS managers and S&TT experts: February 2017
- Definition of technical requirements towards PCS: 30 April 2017
- Detailed description of process steps: 30 June 2017
- Evaluation of technical requirements towards PCS: July 2017
- End: Roll-out in PCS and launching of pilot with volunteering RFCs: November 2017
- Ongoing monitoring of the pilot, evaluation of best practices and lessons learned

This project has been successfully completed.

CIP DEVELOPMENTS 2017/2018

Summary

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 and track properties, as well as infrastructure investment projects of the 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 RNE Managing Board and General Assembly. To find a common view which new functions shall be developed in CIP and to ensure that these new functions would fit into the RNE's portfolio of IT tools, 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 Big Data: June 2018
- Automated display of TCRs: September 2018
- Roll-out to further RFCs: December 2018
- Further ad-hoc developments / End: December 2018

This project is ongoing.

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 fulfill this requirement in a harmonised way, RNE and the RFCs agreed on a set of commonly applicable KPIs, which can be found in the RNE Guidelines for KPIs of RFCs.

The calculation of the first set of results of the commonly applicable RFC KPIs had been completed by the beginning of 2017. They are published in a harmonised form on the RNE website from 2017 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 on a timelier publication of these KPI figures on the RNE website, meaning that each KPI figure will be published as soon as they are available.

Further development of the commonly applicable KPIs was triggered by the Rotterdam Sector Statement of 2016. One of the priority projects defined based on this document is to monitor the quality of freight services by means of implemented and shared KPIs. To meet this requirement, the sector developed certain proposals, out of which those which proved to be feasible and could be agreed upon were added to the list of commonly applicable KPIs in the respective RNE Guidelines, which was approved on 6 December 2017 by the RNE General Assembly.

In addition, to reflect its activities in a better way the RNE/RFC Permanent KPI Expert Group was transformed into an RNE/RFC KPI Coordination Group aiming to coordinate the use of these KPIs and to evaluate their use on a yearly basis. The new structure and workflow was created to avoid duplication of efforts within the various technical WGs of RNE and to make use of the expertise of the RNE Performance Management WG.

The main features of the new workflow are as follows:

- Technical discussions take place exclusively within the RNE WGs concerned, as well as in the C-OSS Community, to avoid duplication of efforts.
- The relevant RNE WGs are responsible for the definition of the requested KPIs, while the RNE Performance Management WG takes care of defining the reports needed for these KPIs and the monitoring of their correctness.
- The RNE/RFC KPI Expert Group does not carry out any technical work but acts as a coordinator of the above-described process and as a strategic platform for the overall RFC KPI topic.

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 the Regulation 913/2010. The Amber Corridor, whose application for RNE associate membership was approved by the RNE General Assembly in December 2017, will be further embedded in all RFC-related activities coordinated by RNE throughout 2018. Establishment of the Alpine-Western Balkan Corridor was jointly initiated by four member states and Serbia in 2017 and is expected be approved by the European Commission by mid-2018.

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 2017, the CIP displayed information on railway infrastructure in 18 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) and North Sea – Baltic (RFC 8). The remaining RFCs have been invited to join the CIP Change Control Board (CCB) as observers and to become CIP users at a later point in time.
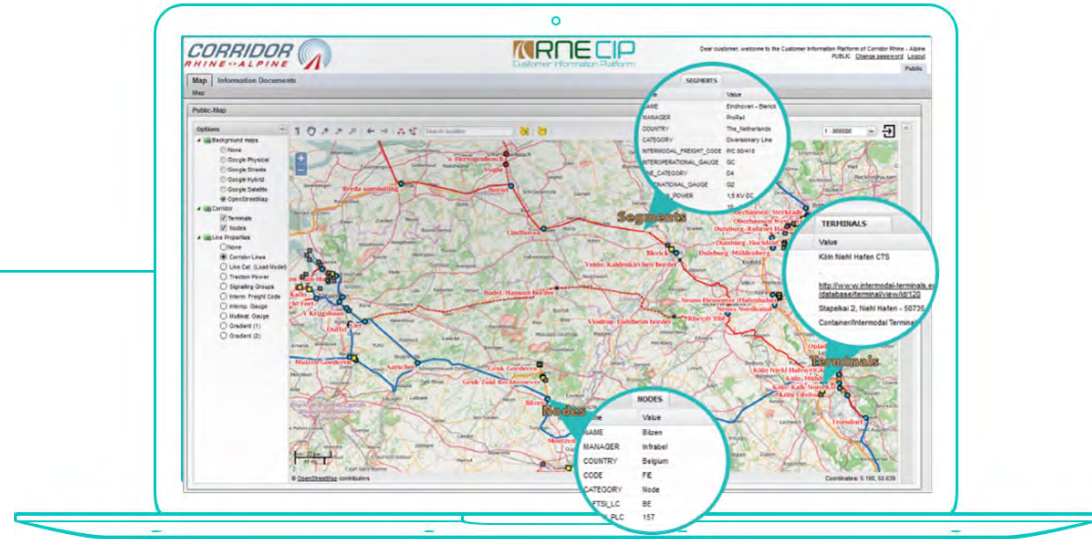

Your single source of harmonised corridor information, 24 hours a day, 7 days a week
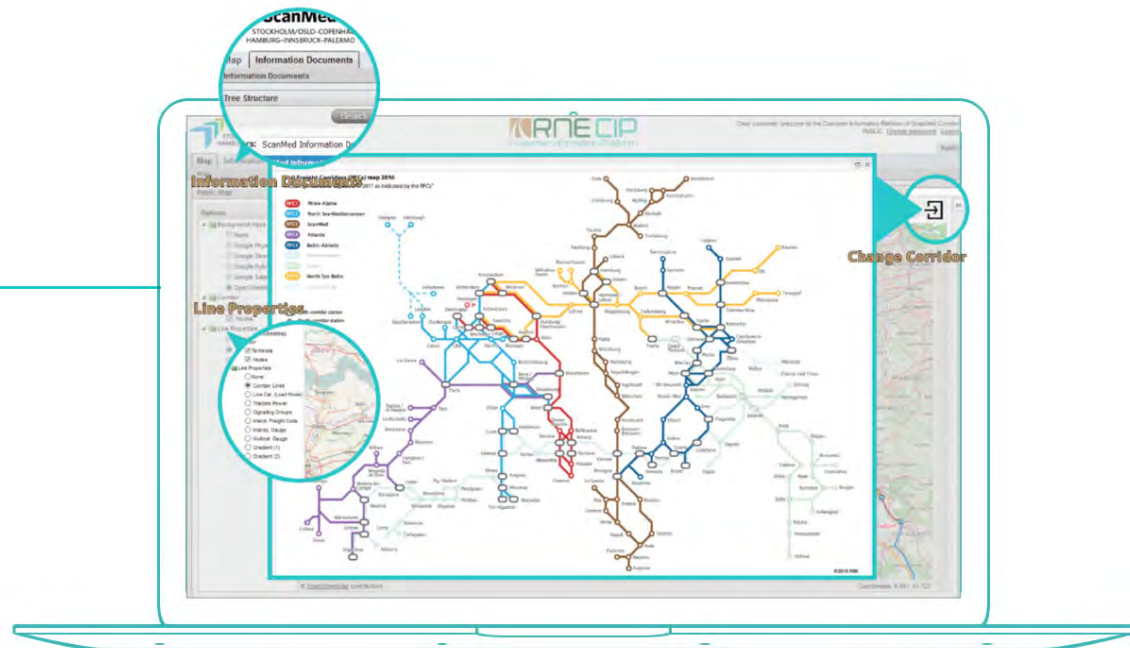
Project Summaries & Activities

To enable the users of CIP to access all the information available on the platform in an even more user-friendly manner, a full multi-corridor view was developed in 2017 and is now available in the CIP. Based on user preference, this new functionality makes it possible to display information for several RFCs at the same time.

The multi-corridor view has been implemented for both main elements of the CIP, the Interactive Map and the Information Documents. As for the Information Documents, a joint structure for the provided information was created. All essential RFC-related information, such as the Corridor Information Documents (CIDs), Capacity Offer, and Temporary Capacity Restrictions (TCRs) is now accessible in the same order for all participating RFCs.
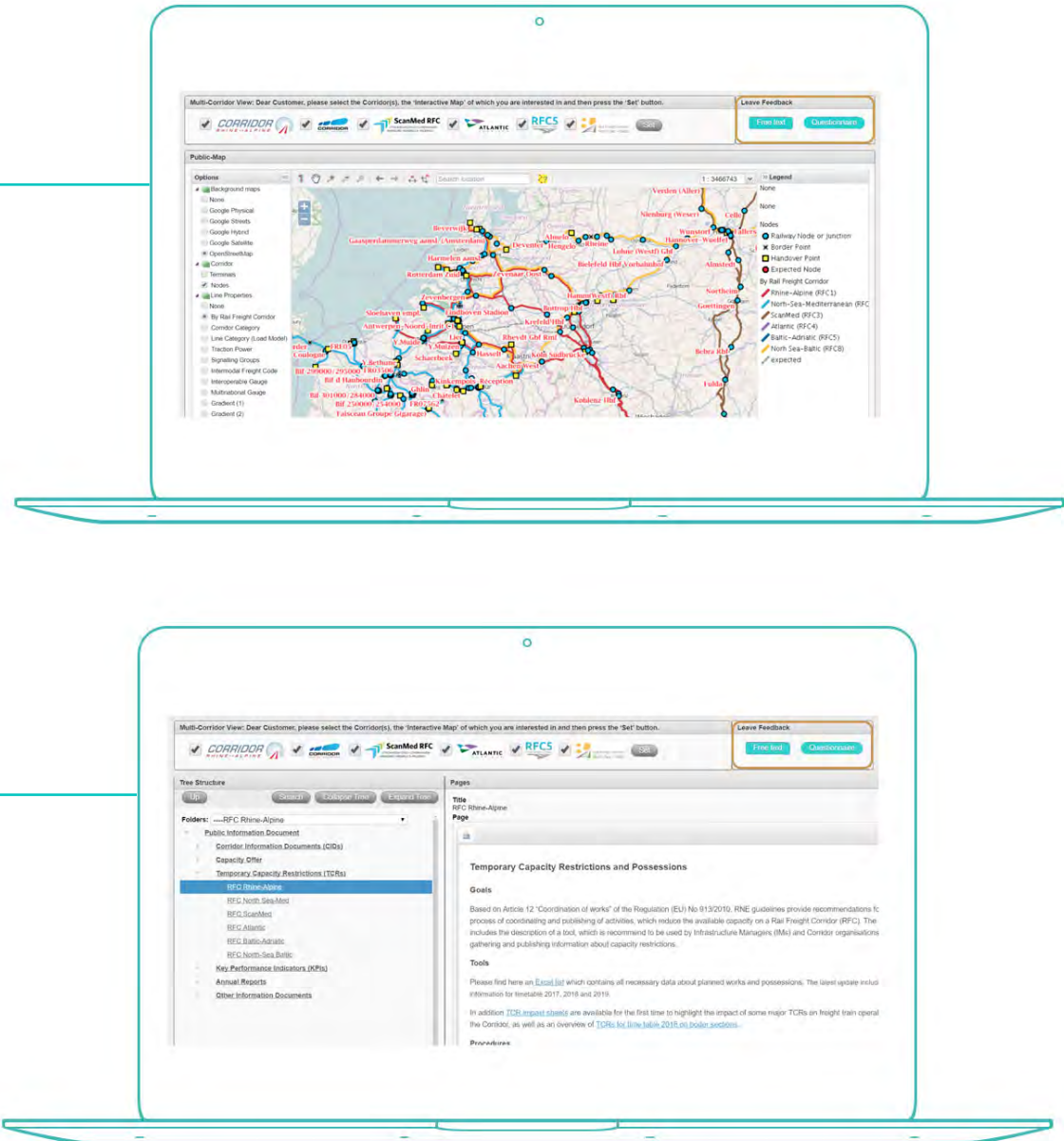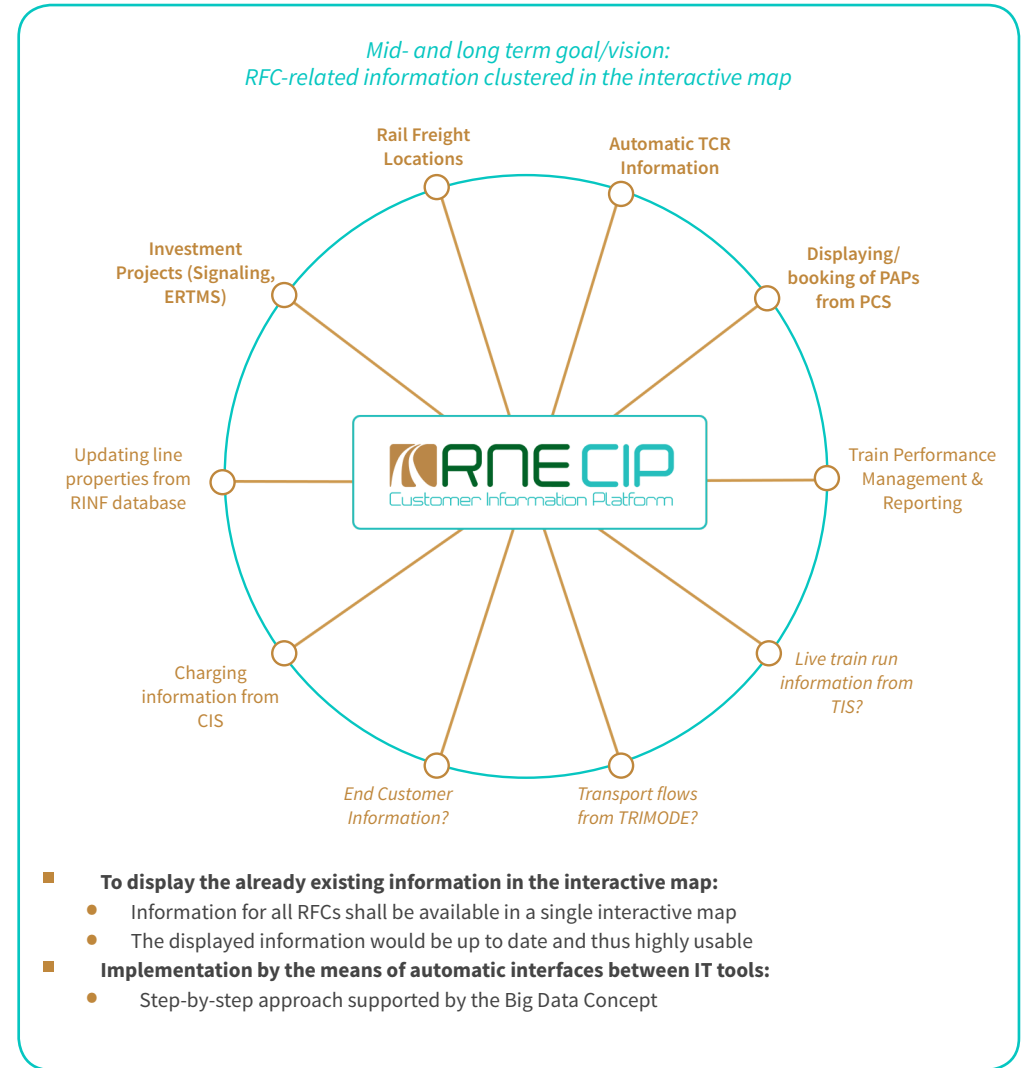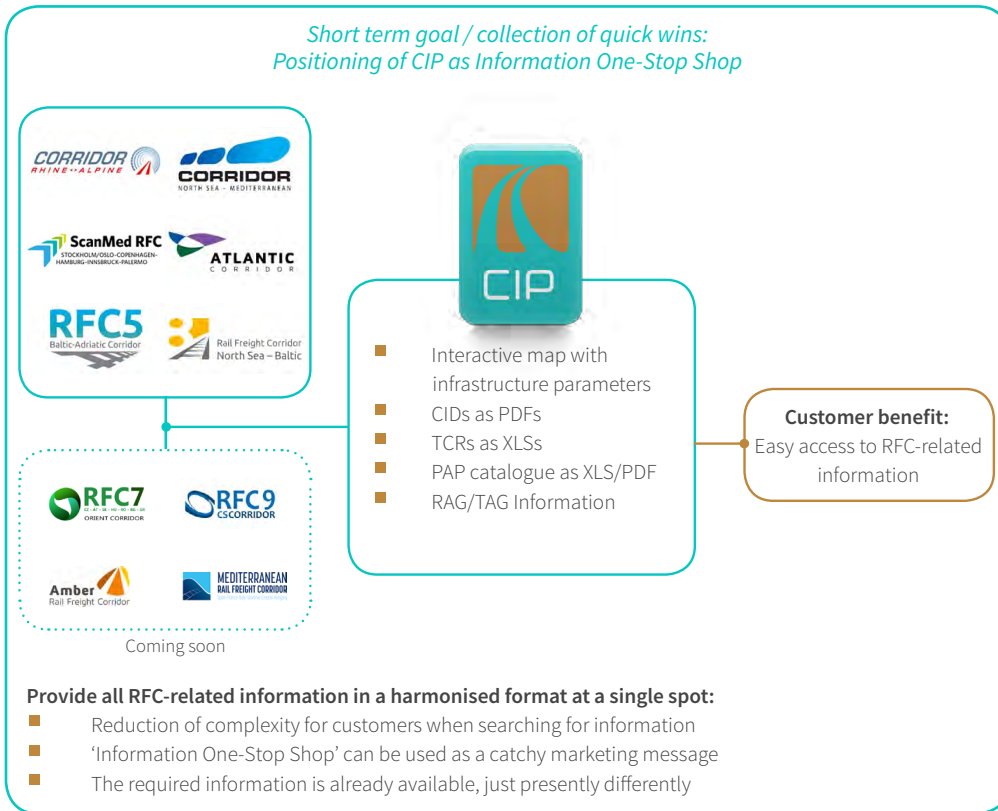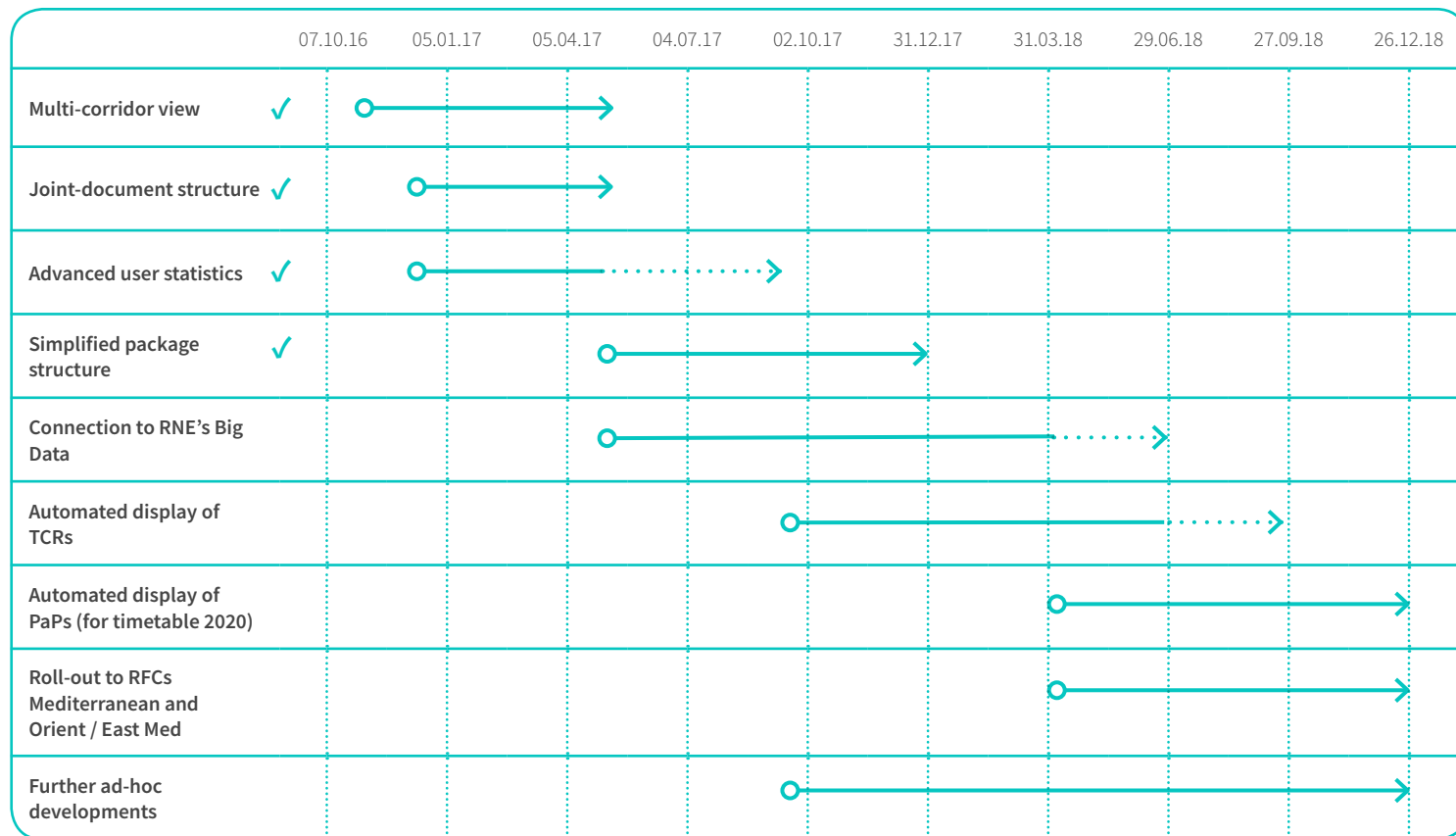
• Outlook

RNE shall further develop the CIP according to the decisions of the CIP CCB, obtaining approval by the RNE General Assembly, if necessary.

To find a common view which new functions shall be developed in CIP and to

ensure that these new functions would fit into the RNE's portfolio of IT tools, CIP CCB approved the CIP Strategy. In addition, corridors Mediterranean (RFC 6) and Orient / East Med (RFC 7) have scheduled to implement CIP in 2018.

Short term goal / collection of quick wins:
Positioning of CIP as Information One-Stop Shop

Interactive map with infrastructure parameters
- CIDs as PDFs
- TCRs as XLSs
- PAP catalogue as XLS/PDF
- RAG/TAG Information

Customer benefit:
Easy access to RFC-related information

Coming soon

Provide all RFC-related information in a harmonised format at a single spot:
- Reduction of complexity for customers when searching for information
- 'Information One-Stop Shop' can be used as a catchy marketing message
- The required information is already available, just presently differently

Mid- and long term goal/vision:
RFC-related information clustered in the interactive map

Rail Freight Locations

Automatic TCR Information

Investment Projects (Signaling, ERTMS)

Displaying/ booking of PAPs from PCS

Updating line properties from RINF database

Train Performance Management & Reporting

Charging information from CIS

Live train run information from TIS?

End Customer Information?

Transport flows from TRIMODE?

- **To display the already existing information in the interactive map:**
  - Information for all RFCs shall be available in a single interactive map
  - The displayed information would be up to date and thus highly usable
- **Implementation by the means of automatic interfaces between IT tools:**
  - Step-by-step approach supported by the Big Data Concept

- ## Outlook

	07.10.16	05.01.17	05.04.17	04.07.17	02.10.17	31.12.17	31.03.18	29.06.18	27.09.18	26.12.18
Multi-corridor view ✓										
Joint-document structure ✓										
Advanced user statistics ✓										
Simplified package structure ✓										
Connection to RNE's Big Data										
Automated display of TCRs										
Automated display of PaPs (for timetable 2020)										
Roll-out to RFCs Mediterranean and Orient / East Med										
Further ad-hoc developments										

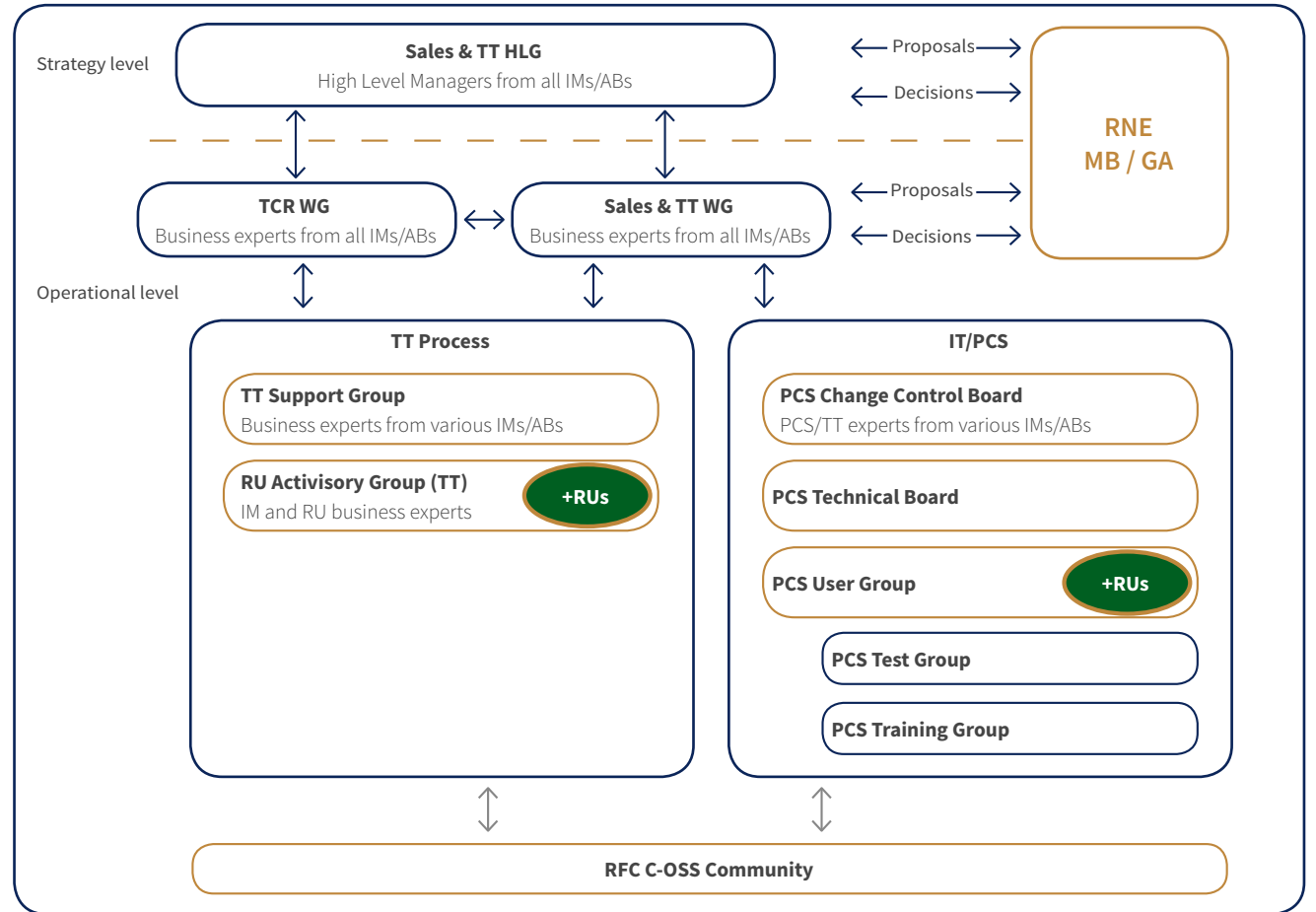*Ongoing, upcoming & foreseen developments of CIP*

4 SALES & TIMETABLING

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 these process steps as the only common international tool for path requests and allocation. As main subjects in the last and 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.

SALES & TIMETABLING MANAGER
PHILIPP KOISER
philipp.koiser@rne.eu

Strategy level

Sales & TT HLG
High Level Managers from all IMs/ABs

← Proposals →
← Decisions →

RNE MB / GA

TCR WG
Business experts from all IMs/ABs

Sales & TT WG
Business experts from all IMs/ABs

← Proposals →
← Decisions →

Operational level

TT Process

TT Support Group
Business experts from various IMs/ABs

RU Activisory Group (TT)
IM and RU business experts
+RUs

IT/PCS

PCS Change Control Board
PCS/TT experts from various IMs/ABs

PCS Technical Board

PCS User Group
+RUs

PCS Test Group

PCS Training Group

RFC C-OSS Community

Timetabling Process

— TTR

Incomplete harmonisation of timetabling procedures between European countries makes it difficult to cooperate at international level. To remedy this unsatisfactory situation, both RailNetEurope (RNE) and Forum Train Europe (FTE) launched the project "Redesign of the international timetabling process" (TTR).

A business case that was based on the TTR project results demonstrated a most positive effect on the European railway sector, especially in terms of financial benefits. Thus, the RNE General Assembly (May 2017) and FTE Plenary Assembly (June 2017), agreed to the project results and to gradually implement this new process, which will provide better market orientation, more efficiency and increased reliability.

To implement this ambitious process, several projects were started in 2017, involving stakeholders from all over the European railway sector.

RAIL FREIG HT CORRIDOR (RFCS) MAP 2016

INCLUDING EXTENSIONS FORESEEN IN 2017 AS INDICATED BY THE RFCS

©2016 RNE
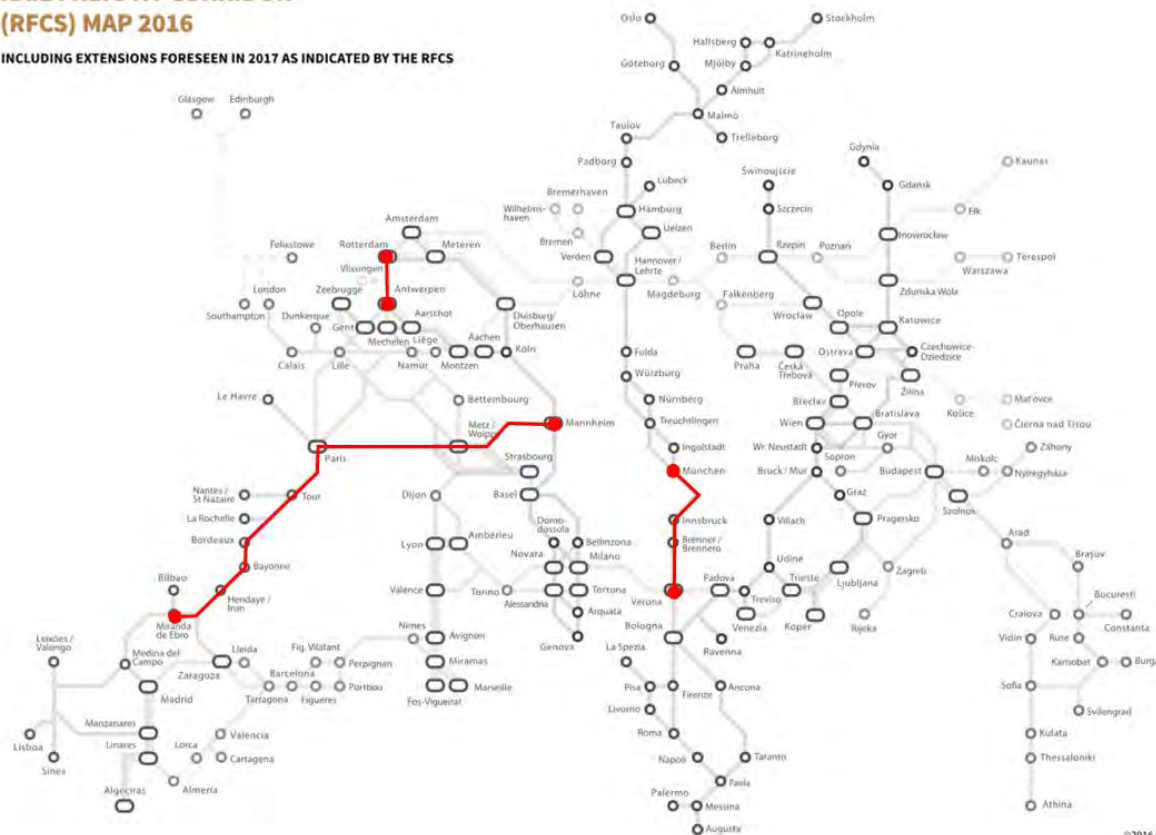
TTR

An overall action plan is currently in development. It will include all TTR process components, the current and target state as well as the steps required to implement them, considering required IT systems and an analysis of the legal framework. The presentation of this action plan is scheduled for the RNE General Assembly in May 2018 and FTE Plenary Assembly in June 2018. A presentation of the TTR IT landscape is expected for December 2018.

The innovative TTR process components are also the subject of pilot runs. After some preparation, the first pilot phase, namely the creation of the so-called "Capacity Model" for timetable 2020, started in December 2017. Based on this, capacity will be available for requests in the second phase throughout 2019 (rolling planning requests can be placed at a later point than the annual requests). The third phase will encompass the running timetable 2020, in which further requests can be placed. The overall action plan will be influenced and revised based on findings from the TTR pilots.

In addition, the TTR results will be the subject of a simulation conducted in the first half of 2018. The results shall display the benefits for the railway sector as already detected in the TTR business case in 2017.
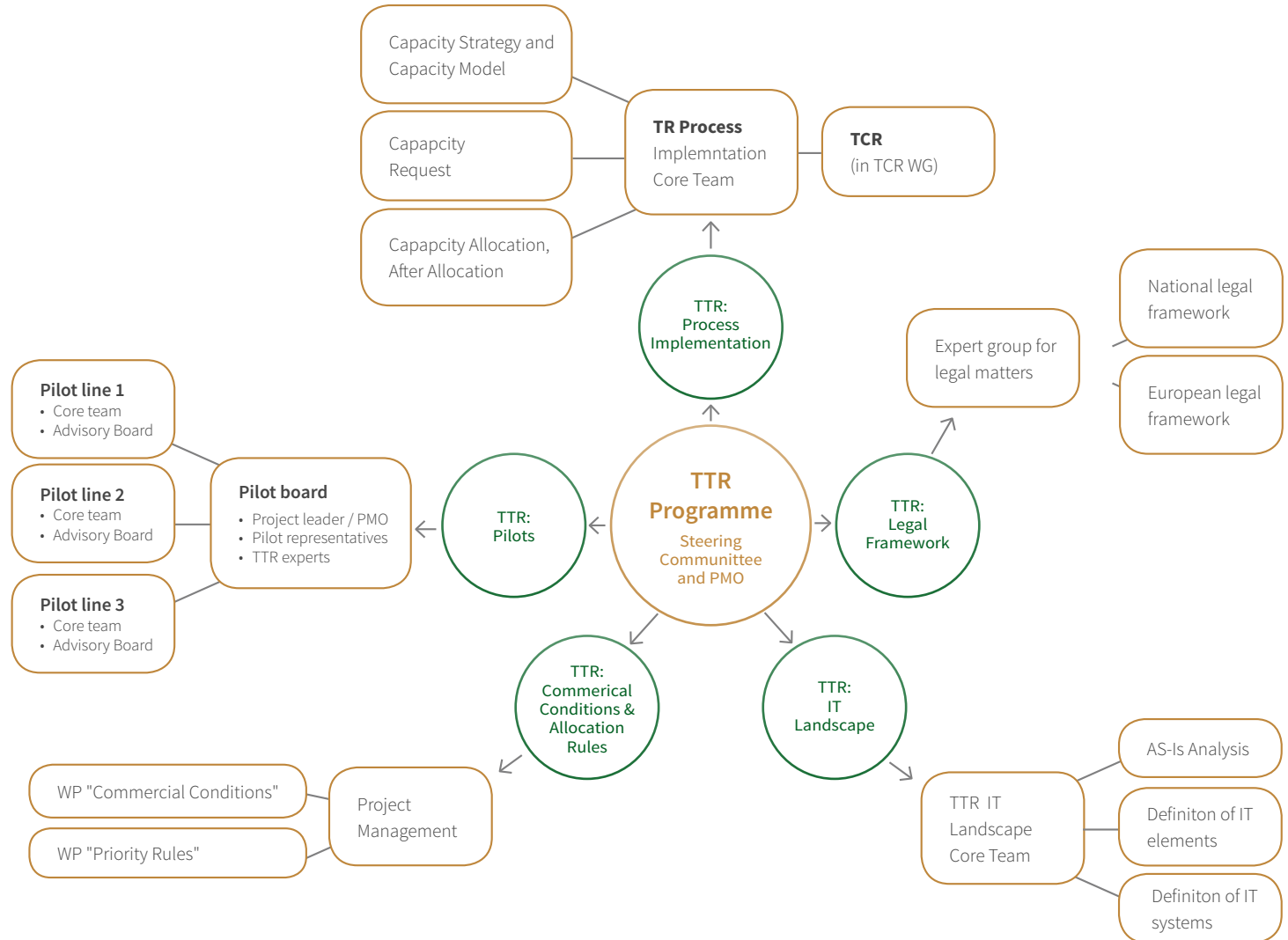
TCR

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, leading to the recast of the Annex VII of Directive 2012/34/EU. The TTR project team (composed of RNE and FTE members) provided technical input for this recast.

As of December 2017, the recast of Annex VII came into force, which led to the RNE GA decision to create TCR Guidelines applicable for the complete European railway network. The first version of these Guidelines is scheduled to be presented to the RNE GA in May 2018.

To cover the increased demand regarding TCR processes, RNE started the TCR Working Group as a permanent RNE Working Group in 2017 dealing with capacity planning. To include the interests of the market, RNE also invited RUs to define workflows in which applicants and IMs commonly design detailed TCR process components.

By the end of 2017, a new TCR Tool supporting the international TCR coordination process was created and is ready for pilot runs on several Rail Freight Corridors.

Main milestones
- Constitutional meeting of the TCR Working Group: March 2017
- End of tender for TCR Tool: April 2017
- Agreement of RUs and IMs to common workflow to design TCR process components: November 2017
- Publication of recast Annex VII: November 2017
- RNE GA agreement to create TCR Guidelines for the complete railway network: December 2017
- TCR Tool prototype available: January 2018

TIMETABLING & TCR MANAGER
ANDRIUS BARTUŠKEVIČIUS
andrius.bartuskevicius@rne.eu

TIMETABLING & TCR MANAGER
GERALD BURGSTEINER
(Until Dec 2017)

Activities

TASKFORCE "TIMETABLE QUALITY"

Summary

As a direct result of a detected lack of quality in path offers for TT 2017, the RNE General Assembly decided in its meeting on 8 December 2016 to create the task force 'TT Quality'. The objective of this task force is to specify measures aimed at increasing path offer quality and to provide an approach – both on working group level and on high level.

The task force is composed of representatives of RFC HL, S&TT HL members, RU representatives as well as RNE's IT and timetabling experts. In the first half of 2017, the task force provided a list of measures to be implemented to improve the timetabling process in the short-, mid- and long-term. An action plan, based on these inputs, has been created and will be implemented gradually in the respective workflows (e.g. PCS interfaces, quick border information).

Main milestones
- Approval by RNE GA: December 2016
- First meeting of the RFC and IM HL: January 2017
- Next steps to be defined in action plan

ITNDB

Summary

To support the sector with the allocation of train numbers, RNE has revised the International Train Numbering Database (ITNDB) in 2016. Having made it fit also for ad-hoc requests, pilot runs were scheduled to test the respective functions. However, due to process related issues, the pilot run couldn't be started.

# Outlook – Sales & Timetabling

2018 will see several challenges:

- The ongoing improvement of the current timetabling process and increased compliance with agreed processes. This also includes the complete revision of RNE's TT handbooks.
- Inclusion of innovative functions to the Path Coordination System (PCS) to improve its usability and to further promote international timetabling processes.
- The gradual implementation of the TTR process based on the overall action plan, including the design of the TTR IT landscape and the ongoing TTR pilots.
- The implementation and improvement of the TCR Guidelines (to cover the recast Annex VII) and the pilot for the TCR Tool.
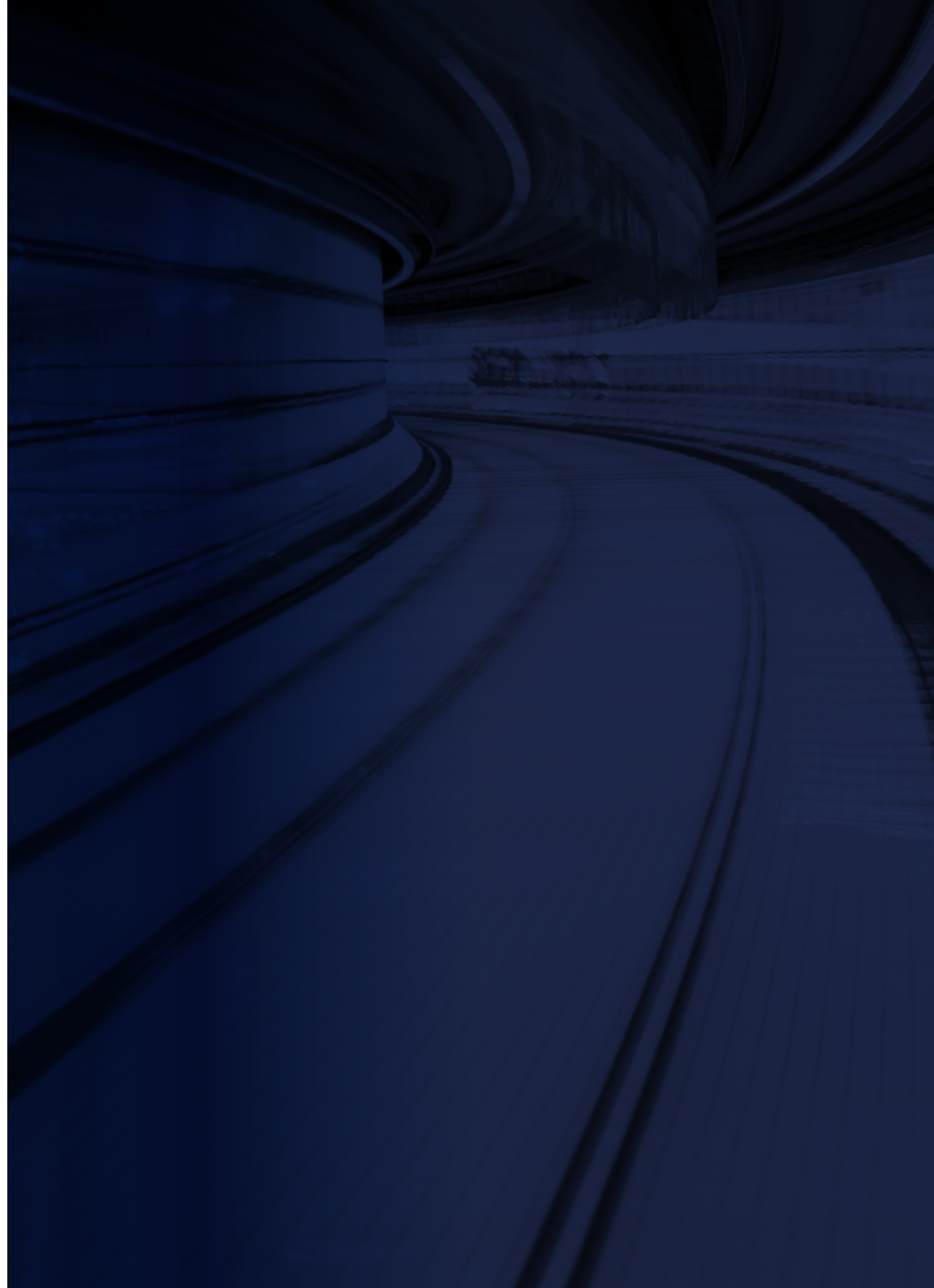
PCS

About PCS
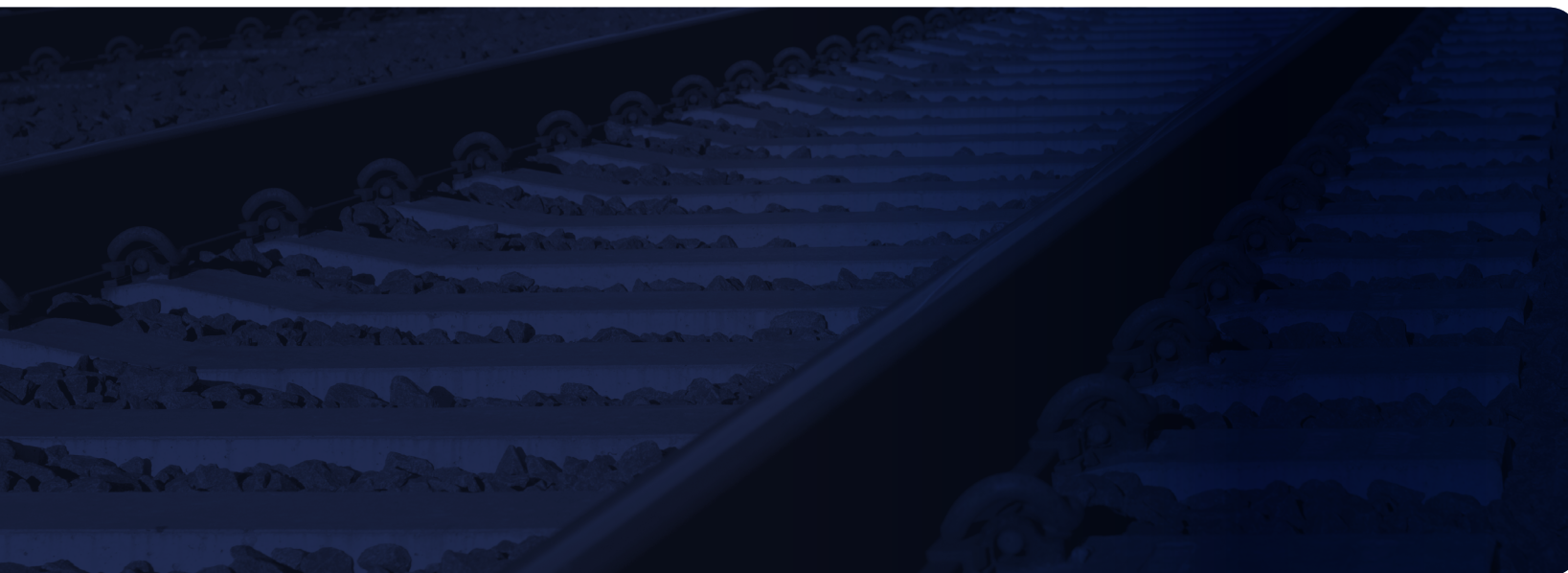
PCS-Team:

MÁTÉ BAK
mate.bak@rne.eu

JORGE CAMPO
jorge.campo@rne.eu

The Path Coordination System (PCS) is an international path request coordination system for path applicants, e.g. Railway Undertakings (RUs), Infrastructure Managers (IMs), Allocation Bodies (ABs) and Rail Freight Corridors (RFCs).

The internet-based application optimizes 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**.

• Project Summaries & Activities

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 2017 the new PCS has consolidated its performance without any noticeable incidents responding to the user's needs.

RNE also continue providing training sessions organised together with the RFCs (Rail Freight Corridors). The Content Management System 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, 12 new releases were implemented, containing a total of 73 improvements and fixes. Among the main developments were:

- Loco Types
- New phase: C-OSS Pre-booking
- C-OSS Timetable that provides editing rights for the RFCs on their PaPs in the dossiers
- PAMT: PaP Availability Management Tool for KPI calculation
- Conflict Solving Tool
- New notifications and a module for the customization of the notifications

The PCS Team gathered all the functional requirements for 2018 important projects as well:

- Empty Envelope Concept
- PaP product definition steps
- TAF-TSI and IP consolidation package

Concerning the support, more than 600 tickets were solved in 2017.
Aside of PCS itself, the team also maintains an up to date version of the International Train Number Database (ITNDB).

Projects

PCS DEVELOPMENTS

Summary

Minor Release 2017
- Conflict Solving Tool (CST)
- PaP Availability Management Tool (PAMT)
- Change Request selection
- Responsible RU agency in IM timetable
- Bug fixes, other

Major Release 2017
- Pre-Booking phase for RFCs
- C-OSS timetable
- Change Request selection

Main Milestones
- Start: 21 April 2017
- Approval of the packages by PCS CCB and Technical Board: 24 February 2017
- End: 14 November 2018

This project has been successfully completed.

EMPTY ENVELOPE CONCEPT

Summary

The idea with the envelope concept is to put inline the way that IM and RU agencies do the harmonisation in PCS. IM agencies already, to a certain extent, work according to the envelope concept with the fact that they all independently modify their respective stretches of the path during Path elaboration phase. This very often leads to inconsistencies and ambiguities on how to interpret their offer. There are also differences between IMs and even for the same IM in different cases. The inconsistencies in subsidiaries, overlapping of the calendar or subsidiaries not covering all running days from the main are even more often and those inflict both RU and IM timetables.

Main Milestones
- Start: 08 Dec 2016
- Kick-off Date: 18 May 2017
- End: 13 November 2018

This project is ongoing.

PCS NEXT GENERATION

Summary

The PCS has seen a rapid increase in the number of functions in the past several years. The main focus in that period was on the development of these functions while keeping the overall usability of the application at the same level.

Minor release of features not included in major release (main developments):

- Alternative Offer
- PA/PM
- Dossier-related reports
- Background (bulk) promotions (remaining)
- Conflict Presentation

Main Milestones

- Start: 15 May 2014
- Final approval of PCS NG major release: 26 January 2016
- End: 4 April 2016

This project has been successfully completed.

PCS NEXT GENERATION FOLLOW-UP

Summary

In the projects 'PCS Next Generation' and 'PCS Training' two new systems have been developed:

- A new interface and architecture for PCS,
- A new Content Management System (CMS).

Feedback from the users allowed RNE to not only know how the usability of the PCS user interface has improved and how supportive the CMS is, but has made it possible to identify areas where further improvement is needed, including PCS support.

The feedback was quite positive in all areas (PCS, CMS and Support). Also, areas in which there is room for improvement could be identified.

Main Milestones

- Start: 4 November 2015
- Presentation of the results to the PCS Day participants: 23 November 2016 (PCS Day 2016)
- End: 8 December 2016

This project has been successfully completed.

- ## Outlook

For the next year, the PCS Team will focus its efforts mainly on the above projects, the development of smaller functionalities and improvements of PCS, and improvement of the support, documentation and change request areas.

By the end of 2018, the Empty Envelope Concept should be ready to be deployed in the production system. Like 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.

During 2018 PCS Support will also focus on the quality of border harmonisation from the aspect of both request and offer. The aim of the monitoring is to warn agencies in time, before the deadlines, to avoid any unnecessary inconsistency and improve the quality of the dossiers.

The PCS Team is also participating in the the PaP product definition and TAF-TSI developments, thereby increasing the reliability, interconnectivity and the customer experience of PCS.

The results of the IT envisioning for TTR are already considered in 2018 together with the TCR tool and its technical and functional details regarding their interaction with PCS.

By the end of 2018 the PCS Team should deliver an analysis and action plan with the aim of reducing national IM parameters among the IMs/ABs to increase the level of harmonisation.

— CIS

• About CIS

RNE's Charging Information System (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 and estimates the price for the use of international train paths. It is an umbrella application for the various national rail infrastructure charging systems.

Benefits of the CIS:

- Price estimate for the use of international train paths within minutes
- Estimate of charges for shunting and station use
- Possibility to restrict route and recalculate charge (by changing some parameters) on each IM network
- Track access charges relevant for a given timetable period

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

RFC SENIOR MANAGER AND PROJECT MANAGER INVOLVED IN CIS FUNCTIONAL DEVELOPMENTS
ZITA KOOPS-ÁRVAI
zita.koops-arvai@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

- ## Project Summaries, activities

Upon request of the CIS CCB, the query user registration was removed in June 2017. This helped to reduce the overall efforts of the CIS maintenance both for RNE and for the CIS Data Managers and to encourage more queries. The graph on the right shows the number of logins by CIS query users per type of user since the query user registration was removed (between June and December 2017):
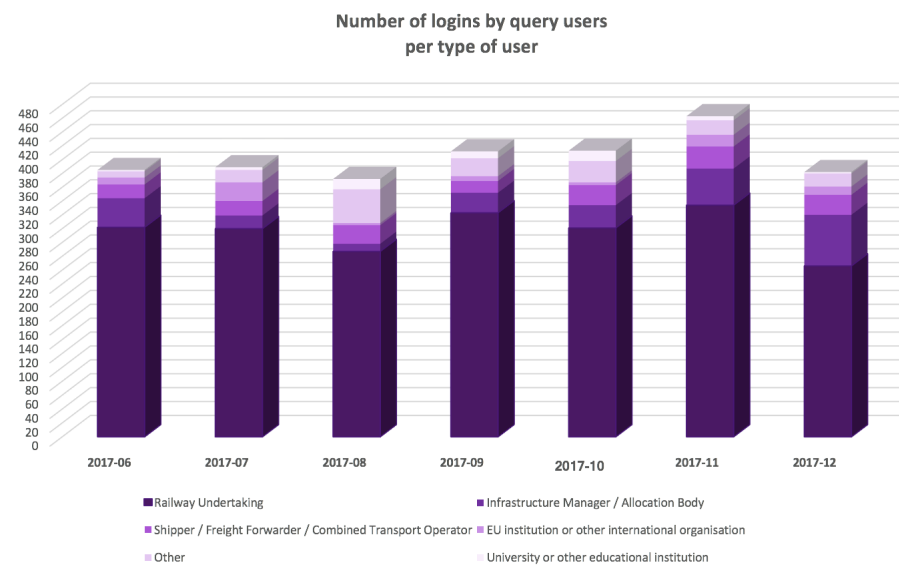
CIS DEVELOPMENTS

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 roll-out for query users: 30 April 2018

This project has been successfully completed.

Number of logins by query users per type of user

Legend: Railway Undertaking; Infrastructure Manager / Allocation Body; Shipper / Freight Forwarder / Combined Transport Operator; EU institution or other international organisation; Other; University or other educational institution

- ## Outlook

As a next major development, it is now planned to connect the CIS to RNE Big Data by the first quarter of 2019.

In addition, the user statistics will be enhanced with additional information as of mid-2018 to gather more detailed information about the usage of the CIS, most importantly in terms of the number of queries per type of user.

Furthermore, RNE will launch a CIS user questionnaire in May 2018 to determine the level of satisfaction of the query users with the CIS, in order that RNE can increase the performance of this IT tool to provide better support to the business needs of the users.

At the moment there are 40 Data Managers from 28 IMs/ABs within 22 European countries who contribute to the CIS.

⑤ TRAFFIC & TRAIN PERFORMANCE MANAGEMENT

General Information Traffic Management

Traffic Management

The leaders of traffic management departments – Traffic Management High Level group - meet on a twice-yearly basis to define the general RNE strategy concerning the traffic management and to propose and monitor the specific tasks to be carried out within a dedicated project group. In addition, the network of traffic management experts was established to be addressed in case of specific traffic management questions and to participate in the 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

TRAFFIC MANAGEMENT MANAGER   :
MIKAELA OHLIN
mikaela.ohlin@rne.eu
(from March 2018)

TRAIN PERFORMANCE MANAGEMENT MANAGER:
IVANA TOMEKOVA
ivana.tomekova@rne.eu
(until March 2018)

HEAD OF TIS AND TPM
JOSEF STAHL
josef.stahl@rne.eu

Traffic Management – Activities

In order to improve the efficiency of work on the specific tasks the organisation of the traffic management area was changed. Regular meetings of TM WG were halted, and more focus was placed on the work within the specific projects. The role of TM HLG became crucial in defining the strategy and deciding about new projects and monitoring and controlling all ongoing activities. To facilitate the communication between traffic control centres, the focus was placed upon TCCCom and Park or Run projects.

TCCCOM

From 2016 onwards, the RNE WG meetings for the NS (Network Statement) and the CID (Corridor Information Document) were merged, as most of the topics are relevant for IMs, ABs and RFCs. In addition, understanding both Network Statement (NS) and Corridor Information Document (CID) issues is essential for IMs, ABs and RFCs alike. This facilitates the cooperation between the IMs, ABs and RFCs in the NS and CID domains, helps them to understand each other's needs better and enables a more efficient execution of joint tasks. In February 2016, the RNE NS WG & CID SG had their first meeting with the complete setup of the Rail Freight Corridors (RFCs), as the three most recently established RFCs became operational in November 2015, namely RFC ScanMed, RFC Baltic-Adriatic and RFC North Sea-Baltic.

PARK OR RUN

Based on detailed functional specification done during 2016, development of the Park or Run tool started in January 2018. The main task of the project team was to closely monitor development, test the intermediate version and prepare the documentation for the Pilot application. Development was finalised in November 2017 and from that moment, the 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 from 6 IMs national traffic control centres were trained in order to start the Pilot usage of the Park or Run tool from 3rd April 2018.

Communication between IM national traffic control centres

There was high demand from within the sector for the improvement of cooperation between IMs and so, based on the proposal from Traffic Management high level, the RNE General Assembly December 2017 agreed that by 2020, IMs would introduce one English speaking dispatcher onto every shift within their national traffic control centre.

Sector priority projects

The provision of reliable Estimated Time of Arrival became one of the top priority activities within the whole 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 on these 2 sector priorities, in December 2017, the RNE General assembly agreed to establish 2 top Priority projects: the ETA Programme and the Language Programme.

Traffic Management Project Summaries

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 jointly concerning which international trains may run as planned and which trains have to be parked and run only later. At the moment, there is no common tool available which can enable or facilitate this process. The goals of the project are 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 is ongoing.

TCCCOM ADDITIONAL FUNCTIONS AND DEVELOPMENTS

Summary

The TCCCom tool was integrated in TIS in 2015 and enables the exchange of predefined messages between traffic control centres. The use of the tool started between several IMs in daily business from April 2016. As IMs have gained certain experience in using the tool, this has implied additional improvements and new functions to be developed. The main goal of the project is to provide functional requirements 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
- IT development: April 2018
- End: New functions fully developed, tested and ready to be used: June 2018

This project is ongoing.

Traffic Management Project Summaries

LANGUAGE PROGRAMME

Summary

The language barrier is an ongoing topic within the whole railway industry. In order to overcome the barriers, the RNE Language Programme will focus on investigating in different alternatives to improve communication between different stakeholders. With close cooperation with the whole sector, information and experiences will be shared.

Main Milestones
- Start (approval of the project proposal) : 6 December 2017
- Kick-off meeting: 8 February 2018
- Analyses how tools and equipment would improve communication: December 2018
- Aggregate available predefined messages into one format : April 2019
- Design a solution with all its details: December 2019

This project is ongoing.

ETA PROGRAMME

Summary

The ETA Programme focuses on how to share best practices between infrastructure managers regarding Estimated Time of Arrival. The focus is on the development of IT solutions in order to display and explore neighbouring IMs' forecasts. The ETA Programme work 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 Train Information System. Analyses are being done on a regular basis, where 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: 15 April 2018
- Phase I: start 30 May 2018
- Phase II: start 27 August 2018
- Presentation results from phase I and II: 5 December 2018

This project is ongoing.

General Information Train Performance Management

Train Performance Management

RNE provides a platform for cooperation and coordination between the IMs and RFCs related to Train Performance Management.

- **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 the reporting services based on demand to IMs, RFCs and RUs in the future
  - oversees functional improvements of the Train Information System (TIS) regarding reporting and acts as Change Control Board of all changes and developments related to 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.

Train Performance & Data Quality Management - Activities

From March 2017, a complete revision of the RNE reporting portfolio was started. The new data loading procedures were implemented to enable more detailed performance analyses.

- **Current reporting portfolio includes:**
  - Detailed punctuality reports of specific traffic flows
  - RFC Punctuality reports (Management summary, detailed monthly report)
  - RFC KPI reports
  - Point oriented RFC performance 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 condition, pricing model, functional specification for RU oriented reports and access contract for RU reporting services are in preparation and are expected to be finalised by June 2018.

TRAFFIC MANAGEMENT MANAGER:
IVANA TOMEKOVA
ivana.tomekova@rne.eu

HEAD OF TIS AND TPM
JOSEF STAHL
josef.stahl@rne.eu

REPORTING EXPERT
SEMKO MERDAN
semko.merdan@rne.eu

Outlook

Traffic Management

One of the main aims during 2018 is to conduct the Pilot implementation of the Park or Run tool and preparation of the final Implementation Guidelines for the European-wide implementation. In addition, the topic of International Contingency Management becomes crucial and will become one of the key activities during 2018.

The focus during 2018 will be on TOP Priority projects:

- ETA Programme, where the focus will be on the development of a tool within the Train Information System. Analyses and tests will be made, and the work group nominees will play a key role
- Language Programme, which will focus on strong cooperation across the whole sector. Above this, the programme will collect, and aggregate pre-defined messages from different stakeholders. Analyses of different scenarios will also be done for future actions

All activities are in line with the overall goal to define a clear, long-term strategy related to Traffic Management and, in particular, to the future usage of TIS on Traffic Management level.

Train Performance Management

The main goal for 2018 is to enlarge the RNE reporting portfolio to fulfill the additional business requirements:

- Apart from the general punctuality report, also provide detailed reports which will enable the identification of problematic areas from a performance point of view (e.g. point/train oriented reports, border section reports, etc.)
- In addition to monitoring the performance of trains running on RFCs, extend the monitoring to all international train runs (both freight and passenger)
- Provide the reporting services also to RUs to monitor the performance of international trains runs in which they are involved
- Strong focus and emphasis on the improvement of data quality to guarantee reliable reports and KPIs for IMs, RFCs, RUs and other interested parties

All these activities are aimed at providing a solid and stable basis that supports the RFC TPM groups in their tasks and will also lay the groundwork for the deeper involvement of Railway Undertakings in performance monitoring and analyses.

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.

One of the core functions of TIS is the linking of national ordered train to one entire international train. Based on agreements between the railway undertakings, the sharing of confidential information between players is one of the biggest advantages TIS offers to the railway sector.

Implementing the Regulation about telematics applications (TAF) TIS is still a frontrunner, using this European railway framework for the exchange of online train information.

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 mile.

Main TIS functions

TIS Real-Time Information:
- Real-time rail traffic data – e.g., contracted timetable, forecast, running advice, delays
- Real-time information is visualised in the TIS graphical interface
- Accessible through standard web browsers

TIS Reporting:
- Predefined reports and graphs (punctuality, delay causes, etc.)
- Customisable reports and graphs
- Information source for international Train Performance Management (TPM)

TIS Data Exchange:
- Raw data exchange based on TAF/TAP TSI messages
- Filtering function to select the required information
- TAF TSI reference system for testing and implementation

Project Summaries

TIS FURTHER DEVELOPMENTS - REFURBISHMENT

Summary

Real-time cross border train monitoring and reporting is still a major demand requested by the railway sector. As TIS is currently the only tool that can satisfy the needs for tracking and tracing of international freight and passenger trains, RNE pays a lot of attention to keeping this tool up to date and providing a user interface which is state of the art.

As the current implementation and framework is roughly 10 years old the messages processing and internal components will be replaced by new technology and features, to eliminate known functional limitations and workarounds, finally to meet the business requirements, simplify the maintainability and prepare the application for the future.

Main Milestones

- Start: Approval of the project: Jan 2017
- Setup of the project team: Feb 2017
- Workshop with interested companies (IM and RU): by end of May 2017
- End: Development of the tool, testing and deployment of the final version: December 2017

This project has been successfully completed.

HEAD OF TIS AND TPM
JOSEF STAHL
josef.stahl@rne.eu

• Outlook

The main topics regarding TIS development are:

- Estimated Time of Arrival (ETA) – generation of forecast qualifier
  - Quality checks of forecast messages on national level as basis as input for international transport ETA
- Optimising and simplifying of the user interface for Terminals (Terminal Trip)
  - Terminals can provide information until technical interfaces are introduced
- Application Performance Package – Message processing reengineering to meet future needs about accelerating and handling of train information data
  - Improvement of the user interface - new state of the art framework
- Implementing of additional TAF TSI messages
  - Service disruption
  - Train Composition Message
- Connection TIS to RNE BIG DATA – unique source for 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 on traffic management level including the first and last mile information about Terminals as well – covering the lifecycle of the entire international transport from departure origin to final destination and make it available for reporting and performance reports.
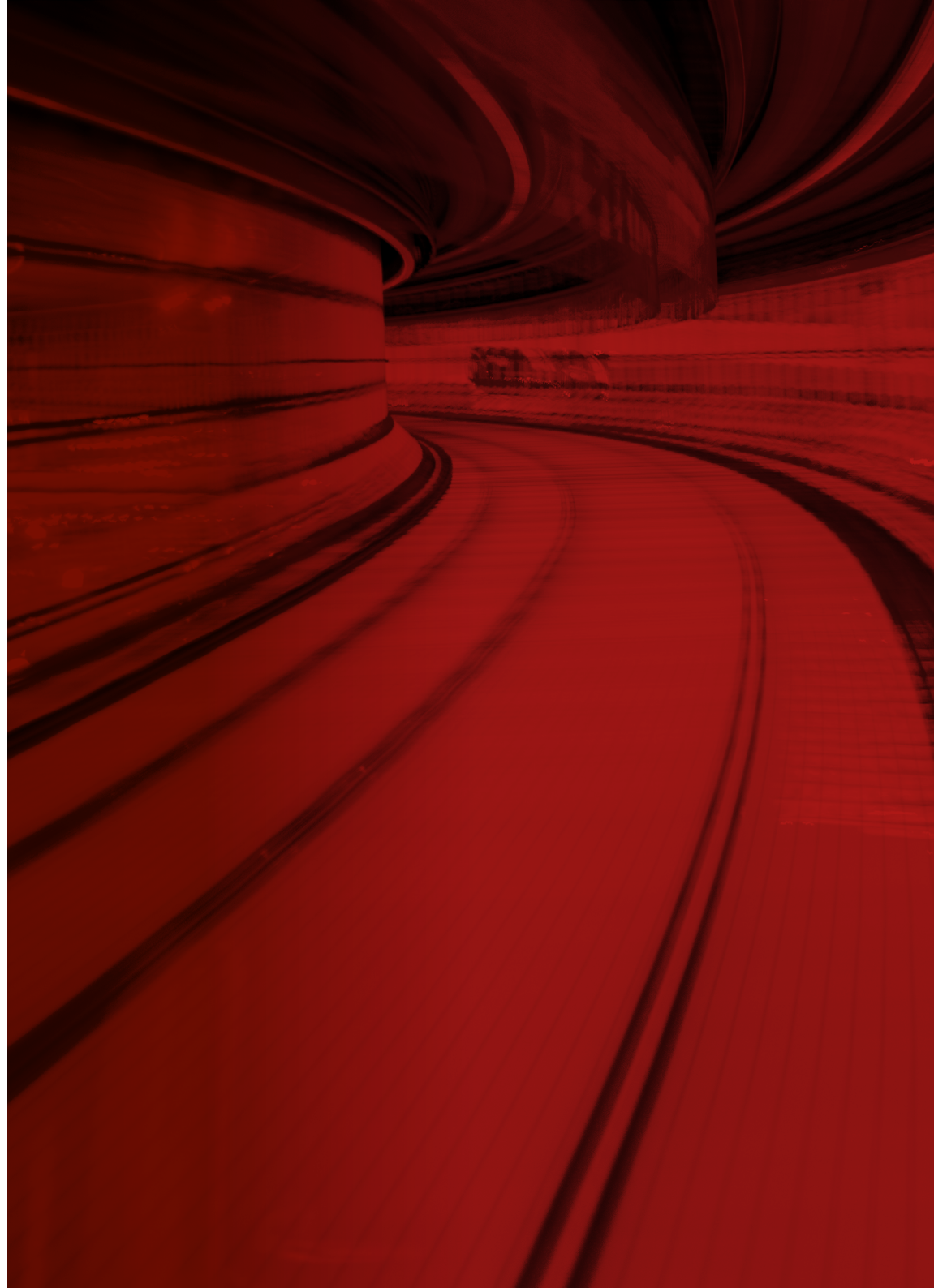
⑥ NETWORK STATEMENT & CORRIDOR INFORMATION DOCUMENT

— General Information

— Activities

— Outlook
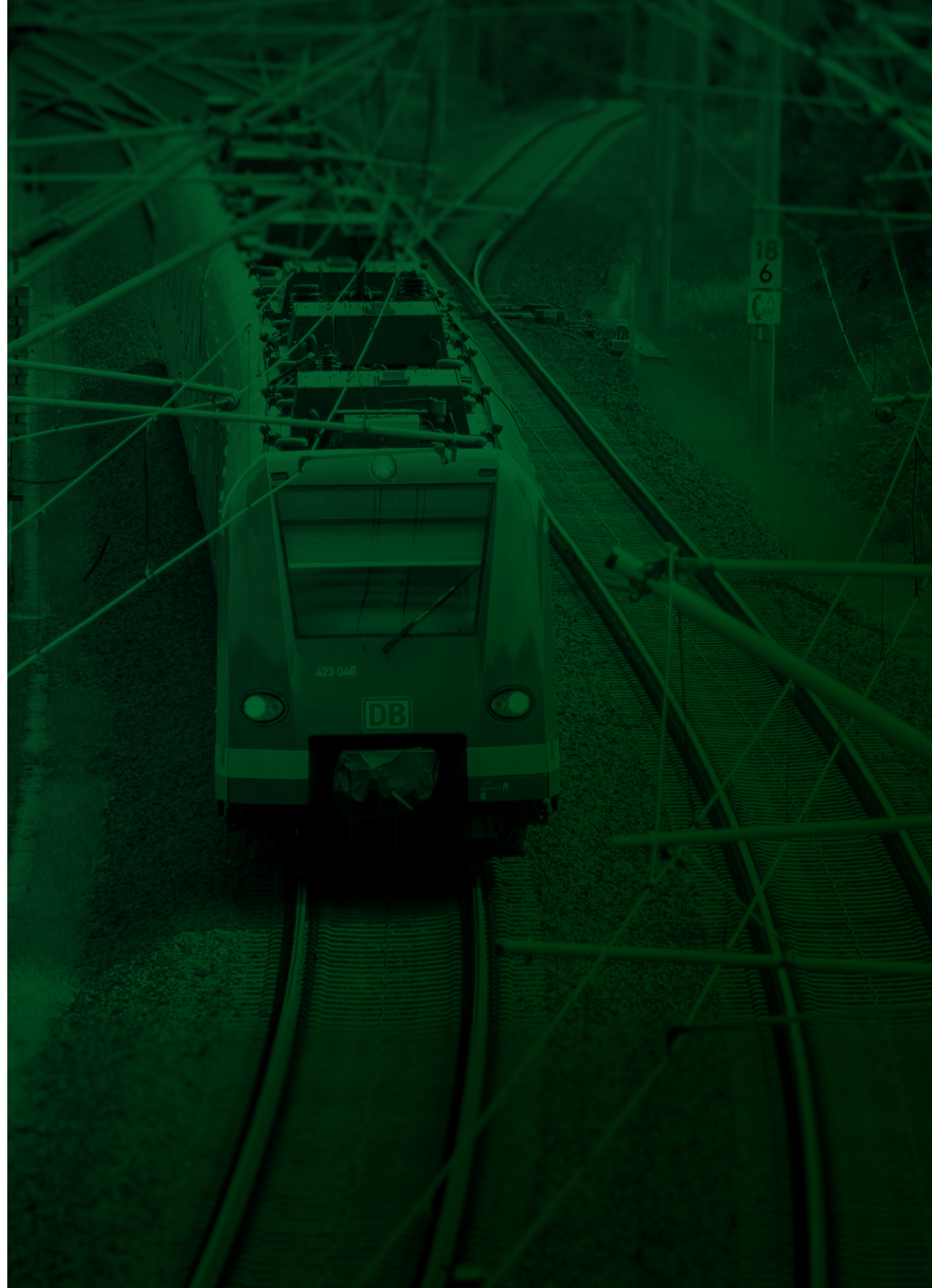
General Information

Understanding Network Statements as well as Corridor Information Document issues is essential for successful communication between IMs, ABs and RFCs. For this reason, the RNE Network Statement Working Group and Corridor Information Document Subgroup were merged in 2017. This facilitates the cooperation between the IMs, ABs and the RFCs as it relates to Network Statements and Corridor Information Documents at the same time and helps them to better understand each other's needs. The major achievements of the RNE Network Statement and Corridor Information Document Working Group are described in the next section.

CHAIRPERSON OF THE
NETWORK STATEMENT AND
THE CID WORKING GROUP
INFRAESTRUTURAS DE
PORTUGAL, S.A.
FILIPE DE PINA
filipe-pina@
infraestruturasdeportugal.pt

RFC SENIOR MANAGER
AND PROJECT MANAGER
ZITA KOOPS-ÁRVAI
zita.koops-arvai@rne.eu

Activities

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, the RNE 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 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 during 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 task force under the RNE umbrella achieved the harmonisation of the text for Book 1 (Generalities) and Book 2 (Network Statement Excerpts). In addition, Book 4 (Procedures for Capacity and Traffic Management) was updated in line with the related process and IT developments. This way, most of the contents of the CIDs became harmonised with the publication of the timetable 2019 editions (in January 2018). This further contributed to achieving the goal of one of the priority projects (Harmonisation of the Corridor Information Document) defined on the basis of the Rotterdam Sector Statement signed in 2016. 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.

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

The KPI is aimed at measuring the compliance of the RNE Members' NSs and CIDs with the RNE NS and CID common structures. The results were the following in 2017 compared to 2016:

KPIs	2016 (2018 TIMETABLE YEAR)	2017 (2019 TIMETABLE YEAR)
Network Statements	83 %	88 %
CIDs	91 %	91 %

Activities

NS and CID KPI results

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

RNE Network Statement Glossary brochure

This is an easy-to-use glossary of terms related to NSs. Its aim is to facilitate the production, the harmonisation of wording and the comparability of the 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.

COMMON TEMPLATE FOR SERVICE FACILITY INFORMATION

Summary

Article 5(2) of the 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 fulfill 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
- Delivery of first draft: 10 January 2018
- Sector workshop: 22 February 2018
- Delivery of final draft: 10 April 2018
- End: Approval by the RNE GA: 16 May 2018

This project has been successfully completed.

RNE Network Statement Glossary

RNE Network Statement Glossary brochure

The RNE Network Statement Working Group has developed an easy-to-use glossary of terms related to Network Statements. Its aim is to facilitate the production, the harmonisation of wording and the comparability of the English-language Network Statements. The definitions in this glossary 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 in Europe, this glossary is a dynamic document which is updated and expanded every year.
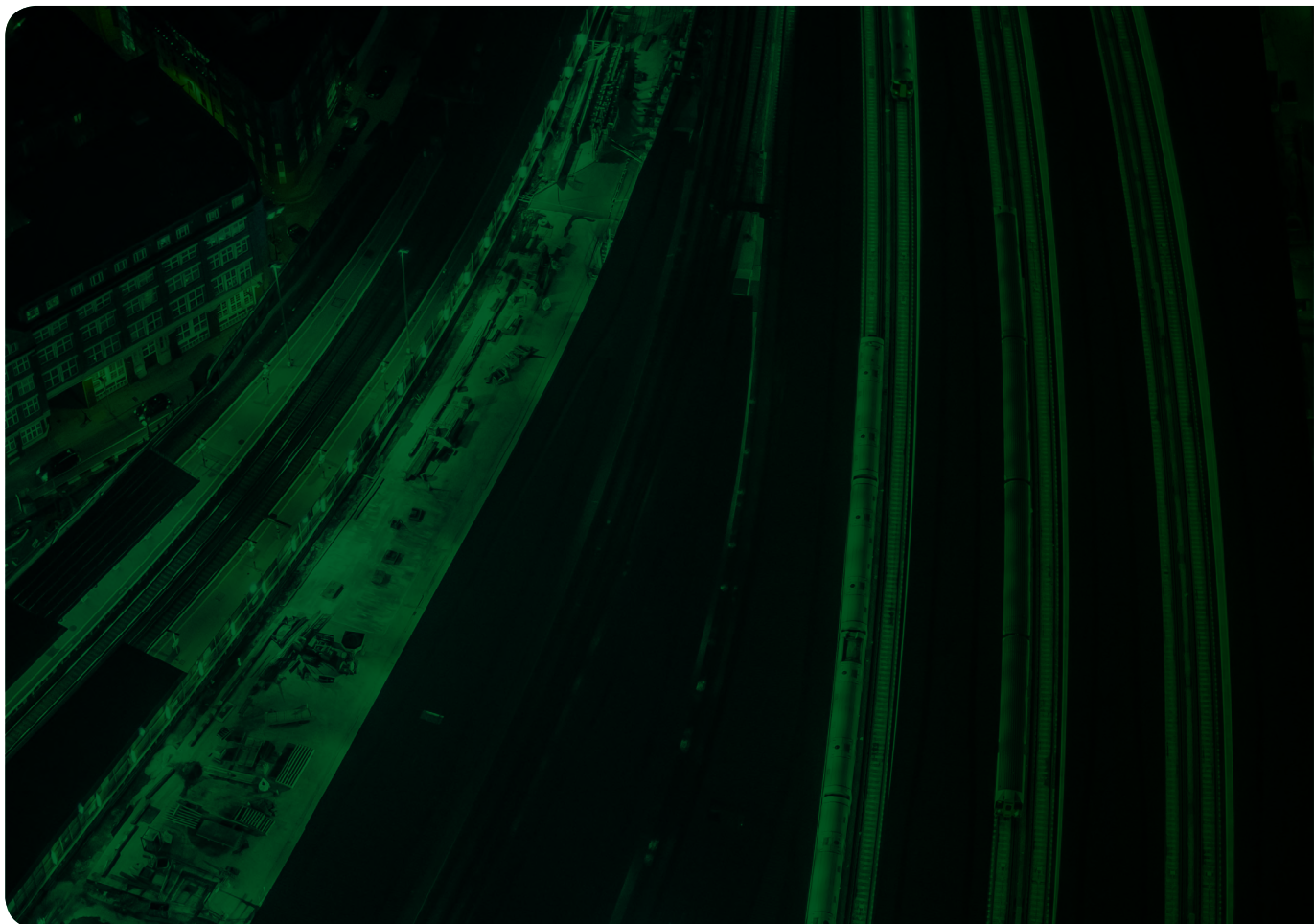
— Outlook

The RNE NS and CID WG shall initiate close cooperation with other RNE WGs and projects so that the new mutually agreed processes can be implemented directly in the RNE NS and CID common structures and texts in due time. Therefore, it was agreed in the RNE NS and CID WG meeting that each new RNE project and WG shall have among its deliverables a proposal for the amendment of the NS and/or CID common structures and texts or at least a conclusion that no such amendment is necessary. The benefit for the other WGs and projects will be that the implementation of their outputs will potentially be facilitated in this way, and in due time. The benefit for the applicants will be that the new processes will be defined in the NSs and CIDs in the same way and in the same place from the beginning.

2018 will bring further harmonisation of the CIDs as follows.

In the end of 2017, a task force was set up to revise the common structure of the CID Book 5 (Implementation Plan) to simplify it for the benefits of the interested parties and for ease of work of the RFCs with the regular updates of their implementation plans. It is planned to finalise it by June 2018. As the compliance with the Book 5 common structure is relatively low at the moment, the revised structure will potentially increase it in a considerable manner.

Once there is an agreement on the final common template for service facility information, the CID Book 3 (Terminal Information) will be revised and adjusted in order that identical terminal information is published both by IMs and RFCs and in the same format.

⑦ LEGAL MATTERS

— 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 relating 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 noticed by industry stakeholders such as the Rail Freight Corridors (RFCs) 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 an 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.

Activities

What were the main activities of the Legal Matters Working Group (LM WG) in 2017?

As most LM WG members advise and represent their own national IM on Rail Freight Corridor issues, the fruitful exchange between all legal experts in the Legal Matters Working Group continued to prove very useful. In 2017 many legal questions on operational RFC issues could be answered, e.g. regarding the path publication, the contractual treatment of the so-called leading RU in case of feeder and outflow paths, the marketing of PAPs via one Corridor-OSS for two RFCs and the impact of ferry usage on the continuation of a PAP. The legal character of the Corridor Information Document (CID) was closely analysed following engaged discussions.

The group continued to give expert feedback to the RNE-FTE project 'Redesign of the International Timetabling Process', where a legal task force consisting of RNE and RU lawyers and chaired by the LM WG chair started analysing the national legal situation regarding TTR implementation in those countries where the three TTR pilots are to be realised in 2020. In addition, the Legal Task Force analyses the compliance of TTR with national and European law, the latter mainly with respect to EU-Dir. 2012/34.

As usual, the group supported the RNE GA in the association management, e.g. by adapting the IROGs due to the closure of RNE Corridors, the legal check of RNE/

RFC High Level Group internal regulations and of the possibility to suspend membership.

Finally, the group adapted and drafted IT-contracts: The TIS-User Agreement template for terminals was updated, mainly regarding its annex C about the TIS advisory board. A new TCR membership regulation was created and a TCR user agreement as well as a new CCS Supplier and Service agreement were drafted.

CHAIRPERSON OF THE LEGAL MATTERS WORKING GROUP, DB NETZ AG:
YVONNE DESSOY
Yvonne.Dessoy@deutschebahn.com

SENIOR LEGAL ADVISER:
TSVETAN TANEV
tsvetan.tanev@rne.eu

Outlook

The group will again have to approach several questions in connection with the Freight Regulation, e.g. the question of the necessity of updating the chapter on the implementation plan in the CID.

As to European legislation, the group will continue monitoring the latest developments regarding the implementing and delegated acts gone into force, e.g. concerning service facilities and the schedule for the allocation process (Annex VII of Directive 2012/34). This task also includes the fourth Railway Package. The revision of the Passenger Rights Regulation (PRR), which is now aimed at infrastructure managers, will be observed and evaluated with a critical view regarding the upcoming legal obligations of infrastructure managers.

Regarding the TTR Project, the group will continue to give legal support and work within the TTR Project Legal Task Force giving legal advice to the whole project. The next meeting is planned together with the project leaders and experts in summer 2018.

Finally, the RNE LM WG will be required to update IT contracts as usual, e.g. for TIS and TCR, and make proposals for amendments to the RNE statutes and IROGs according to possible new developments.

⑧ RNE IT
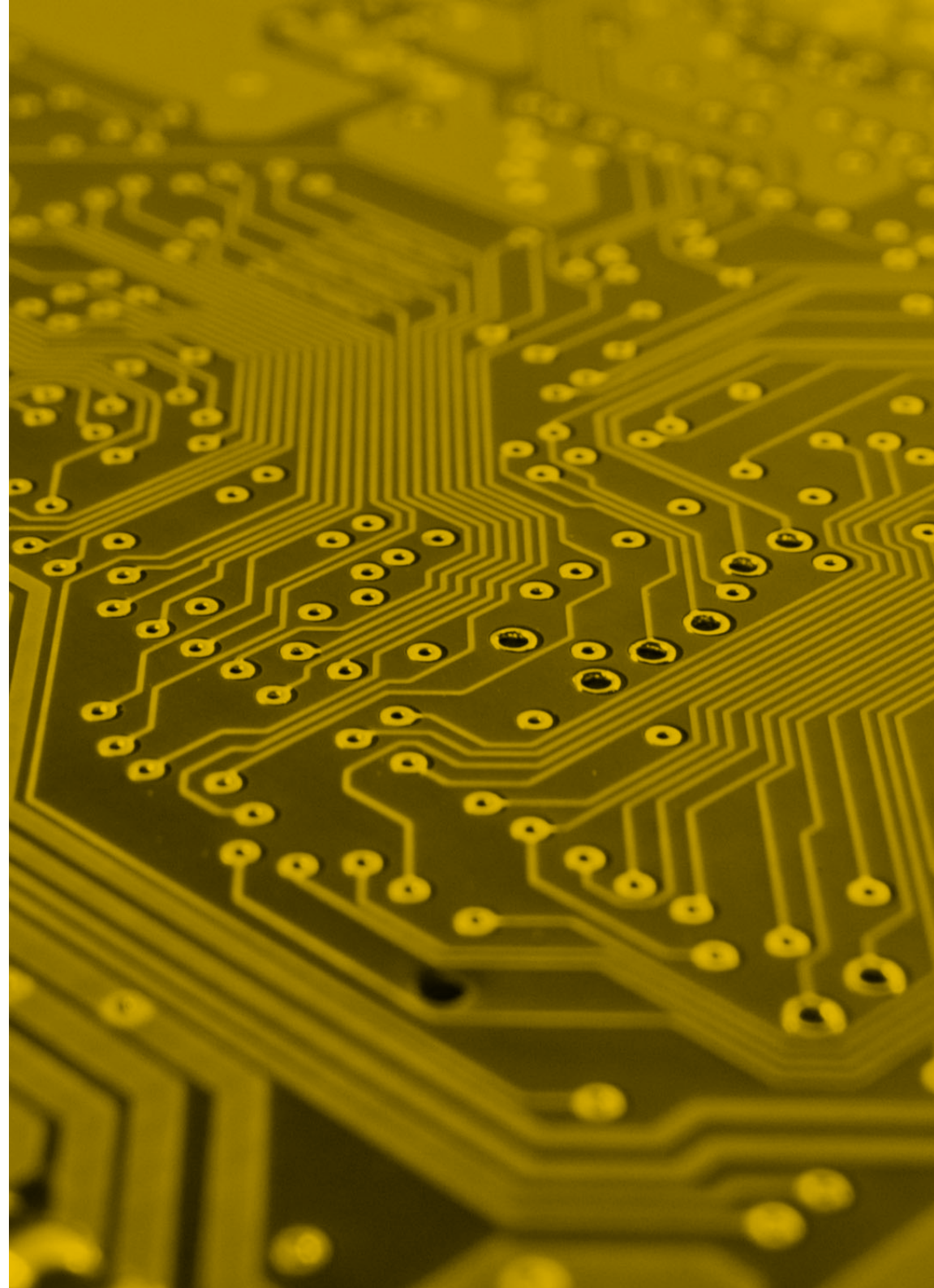
IT Strategy

RNE's IT strategy has been developed over several years in close collaboration with the IT managers of RNE 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 a specific business need. One of the most challenging activities is to develop the stand-alone systems into a common RNE service platform. As RNE systems are fed by the national applications, these must also be considered. The facilitation of the use, development and implementation of software tools in line with changing business demands at an international level are major parts of RNE's IT strategy, which focuses on the following four aspects:

- **Business Needs and Processes**
  - IT follows business needs. RNE WG 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 project, which aims to enable the exchange of harmonised reference files between different RNE and IM systems).

CHIEF INFORMATION OFFICER
HARALD REISINGER
harald.reisinger@rne.eu

SENIOR TIMETABLE IT MANAGER
MARIO TOMA
mario.toma@rne.eu

COMMON COMPONTENTS MANAGER AND IT ARCHITECT
VOJKAN STEFANOVIĆ
vojkan.stefanovic@rne.eu

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

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).
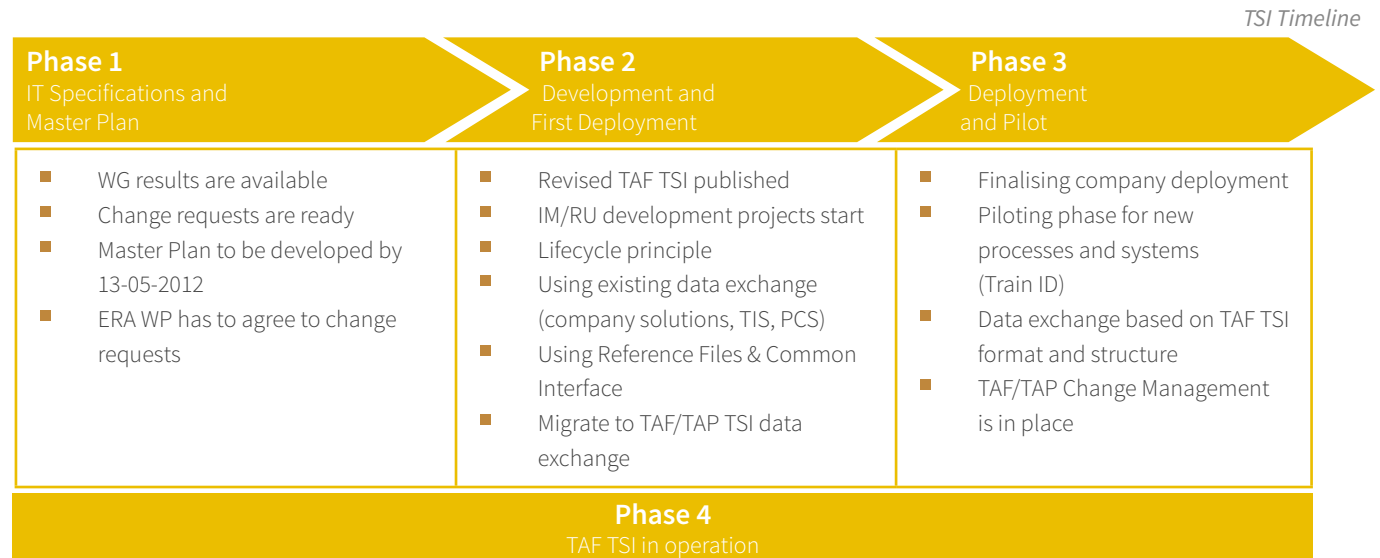
RNE Members have mandated RNE to provide support in the coordination of the IMs within the TAF and TAP frameworks.

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. 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. As the path request function must be developed Europe wide a 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 RNE CCS, TIS and PCS systems are already compliant with 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.

TSI Timeline

Phase 1
IT Specifications and Master Plan

Phase 2
Development and First Deployment

Phase 3
Deployment and Pilot

Phase 1	Phase 2	Phase 3
■ WG results are available ■ Change requests are ready ■ Master Plan to be developed by 13-05-2012 ■ ERA WP has to agree to change requests	■ Revised TAF TSI published ■ IM/RU development projects start ■ Lifecycle principle ■ Using existing data exchange (company solutions, TIS, PCS) ■ Using Reference Files & Common Interface ■ Migrate to TAF/TAP TSI data exchange	■ Finalising company deployment ■ Piloting phase for new processes and systems (Train ID) ■ Data exchange based on TAF TSI format and structure ■ TAF/TAP Change Management is in place

Phase 4
TAF TSI in operation

TAF TSI Master Plan and Implementation

Outlook

In 2017 RNE dealt with many very challenging tasks, and 2018 looks to be just as demanding. RNE is increasing the effort to harmonise reference files used in different systems in the RNE Big Data project.

The first positive results could already be seen in 2017. Therefore RNE has taken existing reference files for the new system for temporary capacity restrictions (TCR). The aim is to have only one set of harmonised reference files to be used by all systems, enabling RNE to use services from other applications. In 2018 the CIP (Customer Information Platform) shall already have capacity restriction defined in TCR.

One major goal for 2018 is the development of detailed specifications and the future IT landscape for the **International Timetable Redesign (TTR)** project. The module required by TTR will be worked out by December to be shown to the RNE GA. A first step was already achieved in 2017 through the implementation of the Temporary Capacity Restriction system, to be followed by a second step of the definition of the mandatory interface to PCS (Path Coordination System) including an implementation plan from the IMs. Additional improvements are planned for the capacity of PCS through 2018.

The **Train Information System (TIS)** is a heavily used tool for international train information. RNE has enabled TIS to already handle Train Running Forecast (Estimated Time of Arrival (ETA)) information from RUs and Terminals. As the exchange of these messages is already functioning, RNE is now focusing on the quality of the provided ETA information. Beside this, TIS shall also be able to use Big Data information by the beginning of 2019. With the Park or Run function short term capacity restrictions can be included in TIS. With the information already available, trains affected by a capacity restriction can be detected and the concerned partners can be informed.

To make the available information accessible in an even more user-friendly way, a full multi-corridor view was deployed in the **Customer Information Platform (CIP)**. In addition, three further RFCs have announced their intention to participate in the platform. As part of the CIP Strategy, the platform shall be positioned as an Information One-Stop Shop for participating RFCs in the short term. In the medium term, the connection to Big Data, planned for mid-2018, shall enable additional functionalities to be displayed on the Interactive Map of CIP.

The contract for the operation and maintenance of the **Common Components System (CCS)** expired at the end of 2017. RNE has developed a completely new function of the CI, which will be deployed in the second quarter of 2018.
Finally, RNE has initiated a TAF TSI pilot for short-term path requests and TrainID. The project was started in 2017 and the piloting system based on CI and PCS is already up and running.

CCS

• About CCS

COMMON
COMPONTENTS
MANAGER AND IT
ARCHITECT
**VOJKAN
STEFANOVIĆ**
vojkan.stefanovic@rne.eu

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 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.

Activities

July 2017 – Tender is completed and a new supplier for CCS was chosen - SIGNON Österreich GmbH from Vienna, Austria. RNE's GA approved a new licensing model for CCS with the intention of bringing it closer to the railway community even for the small and medium actors in the railway industry.

The transition from Evry, the previous software and service supplier, was successfully completed in December 2017. Besides Common Interface (CI) and CRD software maintenance, CRD hosting and the Certificate Authority was completely migrated into RNE's datacentre. A new Test CRD environment and completely new certificate authority were successfully setup. The new certificate authority was built following the industry's best practices and will address issues determined during the security audits performed by example Common Interface users. December 2017 also saw the successful migration of the helpdesk/service desk including a new email service. Additionally, both CRD systems, production and test, as well as certificate authority have new URLs on the RNE.EU domain.

New licensing models were introduced for CCS.

- **Standard License**
  - Current license model applicable to a single company
  - Intended users are large IMs and RUs

- **Supplier License**
  - Comes in packages of 5 licenses for 5 different companies
  - Intended users are service provider companies or groups of small IMs, RUs, terminals, ports, etc.

- **Test License**
  - Free of charge but time limited
  - Intended users are software and service providers willing to build their own TAF TSI compliant CI

For the first time TAF/TAP TSI messages were successfully exchanged between Common Interface and another company's custom built messaging tool.

Outlook

After the Common Interface licensing model was changed, an increased number of actors from across the railway sector are expected to adopt TAF/TAP TSI standard and introduce Common Interface into their systems.

Terms and conditions from CCS transfer contract from UIC Common Components Group to RNE will expire in the beginning of 2018.

With the new licensing model, CCS became more open for the railway sector by offering higher flexibility and freedom. The number of licensed companies and parties interested in CCS has increased and this trend is expected to continue in 2018.

Major changes and improvements performed by the new software supplier will ensure that Common Interface will remain the leading product for TAF/TAP TSI message exchange on the market in the next period. Security is taken very seriously and is under constant review, meaning that 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 ERA on making 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 CRD.

To increase the quality of Reference Files and to be able to provide more and higher quality services to its members and partners, RNE began a further initiative with ERA on connecting to and combining data from RINF with CCS

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 GeoEditor. For the integrations, an iterative approach was selected where in each iteration one RNE's IT system was to be integrated with Big Data. For the first iteration, the TCR tool was selected to be integrated. This would be the first tool built from the beginning, integrated with Big Data. During the analysis it was determined that the data quality in Big Data was not on a sufficient level to successfully support integrations. To overcome these issues, each iteration also contains a sub-project focused only on improving the data quality.

Major achievements in 2017

- CCS CRD was completely integrated with Big Data as data source
- TCR tool integration with Bigdata was successfully completed
- CIP corridors data is successfully imported into Big Data as part of data quality improvement process
- Data KPIs introduced in Big Data to objectively quantify data quality improvement over the iterations

The first iteration of this integration project has been successfully completed.

COMMON COMPONTENTS MANAGER AND IT ARCHITECT
VOJKAN STEFANOVIĆ
vojkan.stefanovic@rne.eu

Big Data integration with other RNE's IT systems will continue in 2018 in parallel with improving the data quality.

Big Data and GeoEditor application improvement process will be continued in 2018 with two planned integration iterations.
During the second iteration planned for the first half of 2018, CIP will be fully integrated with Big Data, which would enable TCRs defined in the TCR tool to be displayed on the interactive map of CIP.

The third integration iteration is planned to start in Q4 2018 that would further improve functionalities and visual identity of Big Data and GeoEditor applications as well as prepare Big Data for integration with TIS in 2019.

Big Data Integration Concept

- Each RNE system can have several layers assigned in Big Data
- Each layer contains topology description adapted to the assigned system
- Each layer topology is based on ground topology
- Ground topology is based on CRD data and on data directly provided by IMs

Big Data

Data Quality Improvement Process

Parallel to these activities, very important process of improving the data quality is constantly being performed. After introducing data KPIs in Big Data we managed to increase the awareness of necessity and importance of high data quality among the stakeholders. Soon after KPIs had been introduced and presented to the sector, data quality started to increase, and this positive trend is also expected in 2018.
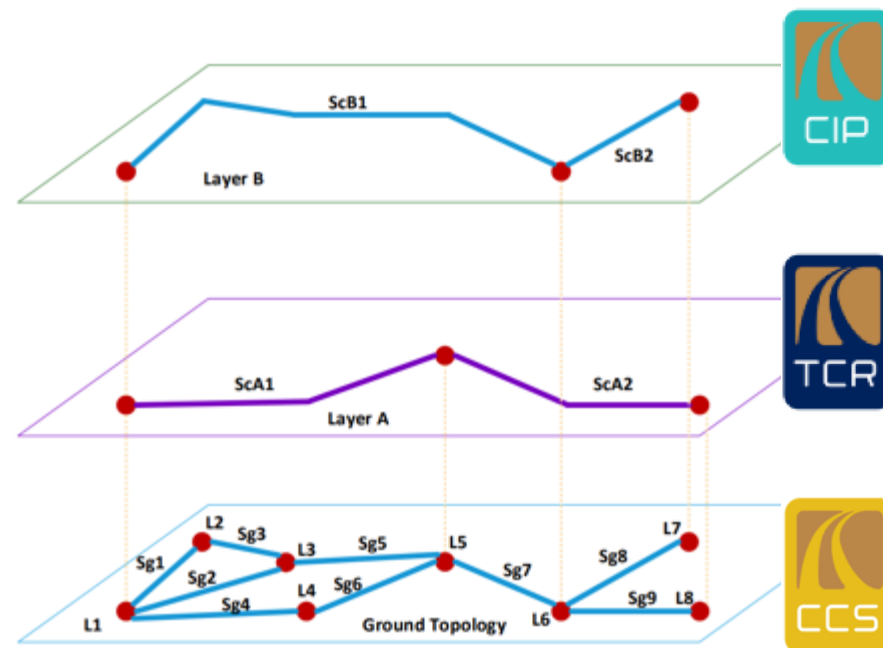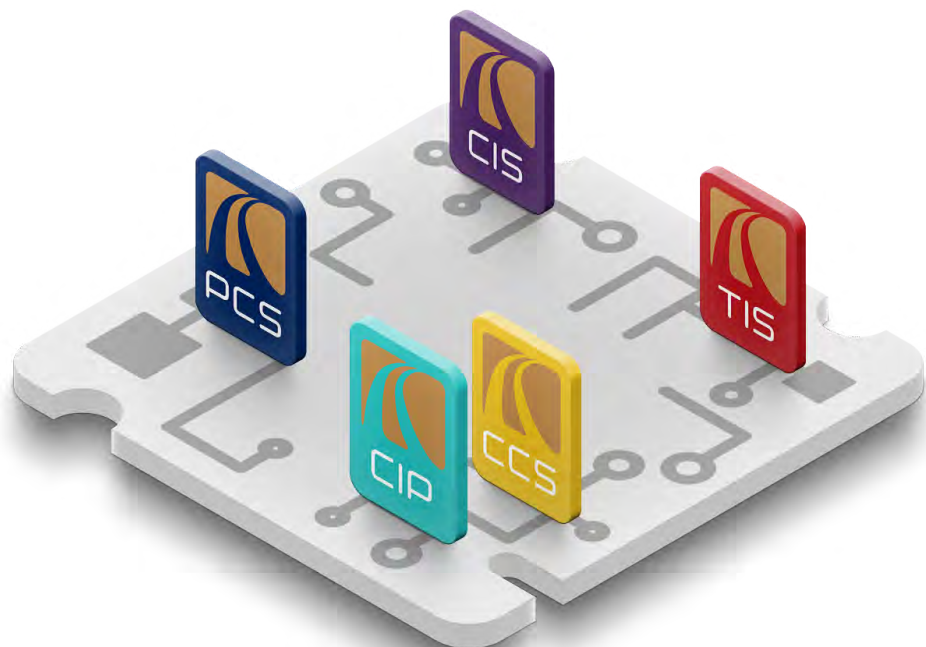
⑨ RAIL FREIGHT DAY

The European Commission and RailNetEurope jointly organised the fourth European Rail Freight Day which was held on 7 December 2017.

Over 300 participants and key stakeholders of the European railway sector gathered at the historical "Alte Börsensäle" in the heart of Vienna to debate the industry's future. After an introduction by Harald Hotz, President of RNE, Violeta Bulc, European Commissioner for Transport, held a Keynote Speech about the state of the European railway sector. Despite her praise for the positive developments of the sector, Bulc held a strong appeal for more international cooperation, warning that it is impossible to stay competitive for the sector otherwise.

Matthew Baldwin, Deputy Director-General of DG Move and master of ceremonies of the event, lead through six panels, which included high-profile experts from infrastructure managers, railway undertakings, Railfreight Corridors as well as national and European regulators. Starting with a panel following the keynote about the general state of the sector and its priorities, many different fields like the interoperability in rail freight, capacity issues and train tracking were discussed. Furthermore, one Panel was dedicated to the Rastatt incident, one of the defining challenges of 2017 in the European railway industry, to identify key learnings about how to deal with future major capacity restrictions.

For the first time in the event's history an interactive real-time polling system was used to gain insight into the sector's stance on the discussed topics compared to the opinion of panel representatives. A day of discussions, networking and discourse was finished by a presentation of the strategy conclusions by Andrew Baldwin. The results of the polls as well as eight key learnings of the day can be found on RNE's website. RNE wants to thank all participants for contributing to a successful event and is looking forward to hosting next year's edition, which will take place in Vienna on 6 December 2018. Registration and program details will be published online.

Impressions

Impressions

⑩ FINANCIALS

Balance Sheet

ASSETS			EQUITY AND LIABILITIES		
	31. December 2017	**31. December 2016**		**31. December 2017**	**31. December 2016**
	€	€		€	€
A. Non-current assets			**A. Equity**		
I. Intangible assets			**I. Capital reserves**		
1. Concessions, industrial property rights and similar rights	974,945.53	717,040.00	1. Not appropriated	**3,756,865.87**	**2,383,330.49**
II. Tangible assets					
1. Structural investment in third-party buildings	11,793.79	19,714.00			
thereof fixtures in foreign buildings	*11,793.79*	*19,714.00*	**B. Provisions**		
2. Other equipment, furnitures and fixtures	35,482.39	33,004.00	1. Other provisions	**61,196.70**	**48,905.10**
	47,276.18	52,718.00			
	1,022,221.71	**769,758.00**			
B. Current assets			**C. Liabilities**		
I. Receivables and other assets			1. Advance payments received for orders	636,300.00	381,300.00
1. Trade receivables	306,467.99	116,822.83	*thereof with a remaining maturity of up to one year*	*636,300.00*	*318,300.00*
2. Other receivables	202,976.57	167,921.56	2. Vendor liabilities	583,573.44	540,032.06
	509,444.56	284,744.39	*thereof with a remaining maturity of up to one year*	*583,573.44*	*540,032.06*
			3. Other liabilities	151,181.04	165,662.83
II. Cash on hand, bank deposits	3,618,379.03	2,445,486.84	*thereof taxes*	*33,092.56*	*26,494.53*
	4,127,823.59	**2,730,231.23**	*thereof social security*	*32,196.91*	*22,257.81*
			thereof with a remaining maturity of up to one year	*151,181.04*	*165,662.83*
C. Accruals	**39,071.75**	**19,241.25**		**1,371,054.48**	**1,086,994.89**
			thereof with a remaining maturity of up to one year	*1,371,054.48*	*1,086,944.89*
Total assets	**5,189,117.05**	**3,519,230.48**	**Total Liabilities and Owner´s Equity**	**5,189,117.05**	**3,519,230.48**

Profit and Loss Account

2017-01-01 to 2017-12-31	2017	2016
	€	€
1. Turnover		
a) Domestic turnover	122,977.05	123,084.50
Membership fees	-72,978.34	0.00
Membership contribution to captital reserve	84,300.49	16,271.67
Others	134,299.20	139,356.17
b) Foreign turnover		
Membership fees	2,191,590.95	2,193,534.20
Membership contribution to captital reserve	-1,300,557.04	0.00
Others	774,986.66	944,800.03
	1,666,020.57	3,138,334.23
	1,800,319.77	**3,277,690.40**
2. Other turnover		
a) EU funding	2,133,835.76	677,600.00
b) Others	2,100	0.00
c) Income from the disposal of fixed assets with the exception of financial assets	156.82	0.00
d) Other	18,393.69	3,732.13
	2,154,486.27	**681,332.13**
3. Cost of purchased services	**139,948.85**	**122,546.27**
4. Personnel expenses		
a) Salaries	1,409,577.83	1,229,579.67
b) Social expenses	255,687.34	221,786.93
	1,665,265.17	**1,451,366.60**
5. Depreciation	**518,686.08**	**501,399.12**

2017-01-01 to 2017-12-31	2017	2016
	€	€
6. Other expenses		
a) Equipment of low value	7,781.51	4,147.17
b) Advertising and promotion	7,140.36	8,517.88
c) Vehicle expenses and transportation	770,77	712.84
d) Postage, telephone and other communication expenses	18,658.87	11,565.14
e) Travel expenses	102,303.01	118,718.42
f) Maintenance and servicing	1,285,400.49	1,627,769.54
g) Bookkeeping and personnel settlement, tax and legal consultation and other	27,386.20	37,325.34
h) Office expenses	5,111.47	4,372.42
i) Office rent	99,140.09	81,061.90
j) Specific allowance for bad debts	31,883.00	47,721.50
k) Other expenses	45,774.04	24,939.16
	1,631,349.81	**1,966,851.31**
7. Operating profit	**-625.87**	**-83,140.77**
8. Other interest and similar revenue	**654.87**	**667.45**
9. Interest and similar expenses	**0.00**	**2,782.76**
10. Financial profit	**654.87**	**-2,115.31**
11. Earnings before taxes, Loss from operating activities	**29.00**	**-85,256.08**
12. Taxes on icome and revenue	**29.00**	**0.00**
13. Earnings after taxes	**0.00**	**-85,256.08**
14. Net loss	**0.00**	**-85,256.08**
15. Release of capital reserves	**0.00**	**85,256.08**
16. 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 Path Coordination System (PCS) and the Charging Information System (CIS) were written off over 5 years until the year 2007. The other data processing programs are being written off over 3 years. An extensive analysis has revealed that the reinvestment cycle of the software is shorter than the previously expected useful life of 5 years. Therefore all software investment since 2008 has been depreciated 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 of 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.

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 cooporation 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.

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 cooporation 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. The relevant data is obtained directly from the Infrastructure Managers' systems.

Charging Information System (CIS) software rights

The Charging Information System (CIS) is a software tool for railway companies that was developed under the leadership of RNE in cooperation with several European railway companies. The Charging Information System (CIS) is an infrastructure charging information system 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. The full rights of utilisation are in complete ownership of RNE.

Common Components System (CCS)

The CCG, RNE and UIC signed the transfer contract on 15 December 2014. According to the agreement, the transfer took place on 31 December 2014 and RNE has been responsible for the Common Components System from 1 January 2015 onwards. The full rights of utilisation are in complete ownership of RNE.

Customer Information Platform (CIP)

Based on the GA decision taken in December 2014, RNE agreed to take over and further develop the Customer Information Platform (CIP) from RFC 1. The RFCs 1, 2, 3, 4, 5 and 8 agreed to join a common CIP system. Therefore, RNE has performed a European tender and has signed the agreement regarding the transfer of the software with RFC 1. Full rights of utilisation have been in ownership of RNE from mid of 2015 onwards.

RNE further develops the CIP according to the decisions of the CIP Change Control Board. The main developments of CIP in 2017 covered:

- Implementation of a full multi-corridor view within the interactive map and a common document structure for all participating RFCs;
- Development of an application for CIP usage monitoring;
- Improving the CIP user interface focusing on login procedure and collection of customers' feedback;

- Alignment of different CIP packages by cleaning up the most advanced packages and upgrading the less advanced ones.

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.

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Temporary Capacity Restrictions (TCR)

The Temporary Capacity Restrictions 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). 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.

RailNetEurope software developments in 2017

In the following table you will find the functional split up of the software developments regarding the above mentioned RNE IT applications. This includes developments made and/or commisstoned by RailNetEurope.

Additions in 2017

	€	€
Path Coordination System (PCS)	**237,276.28**	
Data Exchange incl.		67,900.00
■ Consolidation of PCS Integration Platform		
■ TAF/TAP TSI compliance developments (new fields, processes, code list updates)		
■ New web services for Path Modiflcation/Path Alteration processes		
■ New monitoring tool for PCS IP web services		
■ Additional information in the notification service (Closed phase information)		
PCS Next Generation incl.		153,650.00
■ Adjustment of Path Alteration / Path Modification process		
■ Follow-up developments of Loco Types		
■ New PCS admin application		
■ Improvemenl of Personal Settings (Notification Center, customisable favourite views)		
■ Requirements engineering and specification of new features		
■ Empty Envelope Concept workshop preparation and prototype		
RFC Support lncl.		13,300.00
■ PAMT (PaP Availability Management Tool) search and report		
■ Conflict Solving Tool		
■ PaP Product Definition developments (Pre-Booking phase and C-OSS TT first step)		
Other		2,425.28
■ Project Management		
Train Information System (TIS)	**196,489.78**	
New TIS architecture for message processing and user interface		35,280.00
Park or Run		147,489.78
■ Basic development		
■ Change requests		
■ Auto refresh		
Filtering of national trains		9,800.00
Train linking based on time frame		3,920.00
Customer Information Platform (CIP)	**79,420.75**	
Hardware share related to database investment		330.72
Implementation of a full multi-corridor view and a common document structure for all participating RFCs		24,400.00

CIP usage monitoring application development	8,640.00
Improvement of the user interface	**5.550,00**
Alignment of different packages	40,500.00
Charging Information System (CIS)	**18,350.84**
Removal of user registration	5,880.00
CIS corridor-based calculation 16/10-28/11/2017 EC INEA Activity III	4,410.00
CIS Multi Corridor Map	7,840.00
Hardware share related to datacenter	220.48
Internation Train Numbering Database (ITNDB)	**7,750.73**
ITNDB usability improvements	5,457.50
ITNDB functional changes	2,183.00
Hardware equipment	110.23
Temporary Capacity Restrictions (TCR)	**198,443.00**
Web application incl.	198,443.00

- Coordination and publication of planned Temporary Capacity Restrictions (TCRs)
- Ensuring efficient and optimised planning of Temporary Capacity Restrictions
- Inserting TCRs, based on the information available at national level
- Displaying/Publishing TCRs by taking filters into account (time, status, company, route, impact, duration, etc …)
- Importing and exporting TCRs
- Data exchange to other applications, such as PCS (Path Coordination System) for planning, CIP (Customer Information Platform) for displaying.
- Simple support for conflict resolution
- Uploading of documents related to a specific TCR so all TCR-related information is in the system
- Displaying a dashboard on the opening screen in order to inform about the latest changes (logging of changes)
- Displaying TCRs on a gantt chart
- Displaying TCRs on a map

Joint Office	**7,042.85**
BMD - RNE Bookkeeping Software	2,920.00
Licenses for Office 365	4,122.85W

Receivables and other assets

	Total €	thereof maturity up to1 year €
Receivables and other assets		
Trade receivables	306,467.99	306,467.99
Previous year	116,822.83	116,822.83
Other receivables	202,976.57	202,976.57
Previous year	167,921.56	32,756.79
Sum Receivables	**509,444.56**	**509,444.56**
Previous year	**284,744.39**	**149,579.62**

Provisions
Other provisions have developed as follows:

	State 2017-01-01 €	Usage €	Allocation €	State 2017-12-31 €
Other provisions	5,000.00	5,000.00	0.00	0.00
Provision for accrued vacation	37,905.10	0.00	16,501.23	54,406.33
Provision for extra hours	0.00	0.00	690.37	690.37
Provision for consulting fees	6,000.00	6,000.00	6,100.00	6,100.00
	48,905.10	**11,000.00**	**23,291.60**	**61,196.70**

Liabilities

	Total €	thereof maturity up to1 year €
Liabilities		
Advance payments received for orders	636,300.00	636,300.00
Previous year	381,300.00	381,300.00
Vendor liabilities	583,573.44	583,573.44
Previous year	540,032.06	540,032.06
Other liabilities	151,181.04	151,181.04
Previous year	37,156.91	30,498.06
thereof taxes	*33,092.56*	*33,092.56*
Previous year	*-108,670.24*	*-115,329.09*
thereof social security	*32,196.91*	*32,196.91*
Previous year	*22,257.81*	*22,257.81*
Total Liabilities	1,371,054.48	1,371,054.48
Previous year	958,488.97	951,830.12

Notes to the Profit and Loss Account

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

Miscellaneous information

Managing Board Members
During the financial year 2017 Managing Board Members were

- Harald Hotz (ongoing)
- Ann Billiau (ongoing)
- Michel Dupuis (until 4 May 2017)
- Sture Mikael Erikson (since 4 May 2017)
- Mirosław Kanclerz (ongoing)
- Paul Mazataud (since 4 May 2017)
- Augustinus de Mol (ongoing)
- Péter Rónai (ongoing)
- Bettina Wunsch-Semmler (ongoing)

Employees of the company

In the financial year 2017 RailNetEurope had 21 employees on average, thereof 4 seconded by Members of RailNetEurope and 17 directly employed by RailNetEurope (thereof 2 part-time employees with 50% and 1 part-time employee with 60% and 1 part-time employee with 62,5% of the normal working time).

Vienna, 13 March 2018

Harald Hotz

Ann Billiau   Michel Dupuis   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

	Acquisition / Production cost		Cumulated depreciation			Book value
	2017-01-01 2017-12-31 €	Additons Disposals Transfer postings €	2017-01-01 2017-12-31 €	Depreciations Write-ups €	Disposals Transfer postings €	2017-01-01 2017-12-31 €
Non-Current Assets **Intangible Assets** **Concessions and industrial property rights and similar rights**	3,644,755.98	745,752.84	2,927,715.98	487,324.31	1,892,458.23	717,040.00
	2,497,527.59	1,892,981.23	1,522,582.06	0.00	0.00	974,945.53
		0.00				
Tangible Assets Structural investment n third-party buildings	27,170.28	11,640.35	7,456.28	4,028.80	8,344.75	19,714.00
	14,934.12	23,876.51	3,140.33	0.00	0.00	11,793.79
		0.00				
thereof fixtures In foreign buildings	*27,170.28*	*11,640.35*	*7,456.28*	*4,028.80*	*8,344.75*	*19,714.00*
	14,934.12	*23,876.51*	*3,140.33*	*0.00*	*0.00*	*11,793.79*
		0.00				
Other equipment, furnitures and fixtures	284,259.90	37,870.32	251,255.90	35,271.49	161,820.79	33,004.00
	160,188.99	161,941.23	124,706.60	0.00	0.00	35,482.39
		0.00				
	311,430.18	49,510.67	258,712.18	39,300.29	170,165.54	52,718.00
	175,123.11	185,817.74	127,846,93	0.00	0.00	47,276.18
Total asset schedule	3,956,186.16	795,263.51	3,186,428.16	526,624.60	2,062,623.77	769,758,00
	2,672,650.70	2,078,798.97	1,650,428.99	0.00	0.00	1,022,221.71
		0.00				

— 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, 2017, the income statement for the fiscal year then ended and the notes.

Based on 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, 2017 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 on Auditing. Those standards require that we comply with International Standards on 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 on 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 on the appropriateness of management's use of the going concern basis of accounting and, based on 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, 13 March 2018

Merkur Control
Wirtschaftsprüfungsges.m.b.H.
1130 Wien
WT-Code 804525

Mag. Sabine Studera
(Auditor)

Internal Auditing Report

To the General Assembly of RailNetEurope

Based on the external audit by Merkur Control we have audited the financial statements of RailNetEurope for the year 2017. It is our responsibility 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.

Sopron, 16 May 2018

Claire Hamoniau   Alfred Lutschinger

─ Funding

RNE AND RFC MEMBERS EU-FUNDED PROJECT 2012-EU-94031-S

Summary

The goal of the project is to obtain a refunding of a part of the costs required to develop guidelines and common procedures for TAF/TAP and the RFCs. The funding covers RNE's and RNE Members' efforts for the development of the defined processes.

Main Milestones
- Start: 1 March 2013
- Acceptance of Strategic Action plan: 4 February 2014
- Acceptance of Action Status Report: 20 March 2015
- Delivery of technical final report: July 2016
- Delivery of financial report: October 2016
- End: Closure letter received: 18 July 2017

This project has been successfully completed.

CIO
HARALD REISINGER
harald.reisinger@rne.eu

PROJECT MANAGER
HOLGER EILETZ
holger.eiletz@rne.eu

RNE EU-FUNDED PROJECT 2014-EU-OPEN-S

Summary

The goal of the project is to obtain a refunding of a 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
- Expected delivery of final report: June 2018
- End: Final Payment: November 2018

This project is ongoing.

RNE CEF FUNDING PROJECT 2018-EU-OPEN-S

Summary

The goal of the project is to obtain a refunding of a part of the costs of the development TTR process, further developments of TCR tool, maintenance and further development of TAF/TAP TSI Common Components, PCS Next Generation, basic system for TM, TPM and improvement of TIS.

Main Milestones
- Start: 1 July 2017
- Delivery of final report: June 2021
- Expected acceptance of final report: October 2021
- End: Final Payment: November 2021

This project is ongoing.

(11) ONE-STOP SHOP CONTACT POINTS

AUSTRIA
ÖBB Infrastruktur AG

Contact person:
GERHARD PFEIFER
Elisabethstraße 9
A – 1010 Wien

Phone: +43 1 93000 33480
Fax: +43 1 93000 25227
Email: oss.austria@oebb.at

AUSTRIA AND HUNGARY
Raaberbahn / Gysev

Contact person:
OSKAR PICHLER
Bahnhofplatz 5
A-7041 Wulkaprodersdorf

Phone :   +43 2687 62 224 117
Email :   oss@raaberbahn.at

BELGIUM
Infrabel, SA Under public law

Contact person:
FREDDY VAN DER CRUYSSEN
Bureau I-TMS.542
Infrabel Traffic Management &
Services Timetabling
Sectie 41/4
Fonsnylaan 13
B- 1060 Brussel

Phone: + 32 2 432 57 19.
Mobile: + 32 490 65 10 69
Email: oss-rne@infrabel.be
Email: freddy.vandercruyssen@
                infrabel.be

BULGARIA
National Railway Infrastructure
Company of Bulgaria (NRIC)

Contact person:
TIHOMIR TRIFONOV
110, Maria Luiza Blvd.
BG - 1233 Sofia

Phone: + 359 2 932 39 90
Fax: + 359 2 932 35 39
Email: t.trifonov@rail-infra.bg

CROATIA
HŽ Infrastruktura d.o.o.

Contact person:
BISERKA KELLER
Zdravko Laktašić
Mihanoviceva 12
HR - 10000 Zagreb

Phone: +385 1 453 35 56
                 +385 1 378 30 21
Fax: +385 1 45 77 939
Email: oss@hzinfra.hr

CZECH REPUBLIC
SŽDC, Správa železnicní dopravní
cesty, státní organizace

Contact person:
MARKÉTA ŠLACHTOVÁ
Dlážděná 1003/7
CZ - 110 00 Praha 1

Phone: +420 972 244 556
Email: oss@szdc.cz

DENMARK
BDK - Banedanmark

Contact person:
ALEX S. NIELSEN
Vejlevej 5
7000 Fredericia

Phone: +45 82 34 07 17
Mobile: +45 27 11 83 10
Email: asn@bane.dk

FRANCE
SNCF Réseau (SNCF)

Contact person:
LUC ROGER
92, Avenue de France
FR-75648 Paris Cedex 13

Phone: +33 (0)1 5394 1900
Email: luc.roger@sncf.fr

OSS Substitute:
SOPHIE ARIZA
Phone: +33 (0)1 5394 3615
Email: sophie.ariza-grynblat@sncf.fr

*For RNE path requests please
contact:*
GUICHET SILLON
Email: sillon.guichet@sncf.fr

GERMANY
DB Netz AG

Contact person:
FRANK SCHLEINHEGE
Mainzer-Landstrasse 201-203
DE-60326 Frankfurt (Main)

Phone: +49 69 265 30550
Email: oss@deutschebahn.com

GREAT BRITAIN
HS1 - HighSpeed1 Ltd.

Contact person:
SEAN HORKAN
12th Floor
One Euston Square
40 Melton Street
GB - NW1 2FD London

Tel: +44 207 014 2738
Fax: +44 207 014 2701
Email: sean.horkan@highspeed1.
                 co.uk

GREAT BRITAIN
Network Rail Ltd.

Contact person:
STEVE RHYMES
1 Eversholt Street
GB - NW1 2DN LONDON

Phone: + 44 77 67 672 488
Email: steve.rhymes@networkrail.
          co.uk
Train planning contact:
ANDREW RELF
The Quadrant: MK
Elder Gate
GB - MK9 1EN Milton Keynes

Phone: +44 1908 956 855
Email: andrew.relf@networkrail.
          co.uk

HUNGARY
VPE Vasúti Pályakapacitás-elosztó
Kft.

Contact person:
LÁSZLÓ PÓSALAKI
Bajcsy Zs. út 48
HU - 1054 Budapest

Phone: +36 1 301 99 03
Fax: +36 1 332 80 25
Email: oss@vpe.hu

ITALY
RFI - Rete Ferroviaria Italiana S.p.A.

Contact person:
MARCO GATTA
Direzione Commerciale ed Esercizio
Rete Commerciale
Business Merci
Piazza di Porta San Lorenzo 1
IT - 00185 Roma

Phone: +39 06-47307971 -
          FS 970-67971
Mobile: + 39 313-8001940
Email: m.gatta@rfi.it

LITHUANIA
Lietuvos geležinkeliai

Contact person:
RIMAS IVANAUSKAS
Geležinkelio str. 2
LT - 03603 Vilnius

Phone: +370 5 202 12 11
Email: r.ivanauskas@litrail.lt

LUXEMBOURG
ACF – Administration des Chemins
de Fer

Contact person:
LAURENT KASS
1, Porte de France
LU - 4360 Esch-sur-Alzette

Phone: +352 26 19 12 23
Fax: +352 26 19 12 29
Email: laurent.kass@acf.etat.lu

MACEDONIA
Makedonski Železnici Infrastruktura
Contact person:
MAGDALENA JOVANOVA

PE Macedonian Railways
Infrastructure- Skopje
Str. Jordan Mijalkov No 50 b
MK - 1000 Skopje

Email: m.jovanova@mzi.mk

NETHERLANDS
ProRail B.V.
Contact person:
JAN DEELEMAN

PO Box 2038
NL - 3500 GA Utrecht

Phone: +31 64 570 6347
Email: jan.deeleman@prorail.nl
OSS: oss@prorail.nl

POLAND
PKP Polskie Linie Kolejowe S.A.
Contact person:
ROMAN STANCZAK

ul. Targowa 74
PL-03-734 Warszawa

Phone: +48 22 47 33 46 9
Fax: +48 22 47 32 359
Email: oss@plk-sa.pl

PORTUGAL
Infraestruturas de Portugal, S.A.
Contact person:
PATRICIA CATARRINHO

Estação de Santa Apolónia
PT-1100-105 Lisboa

Phone: +351 211 022 211
Fax: +351 211 022 386
Email: oss@infraestruturasdeportugal.pt,
patricia.catarrinho@infraestruturasdeportugal.pt

ROMANIA
Compania Naţională de Căi Ferate
'CFR' SA - Căile Ferate Române

Contact person:
LUCIAN BARBU

38 Dinicu Golescu Avenue, Sector 1
RO -010873 Bucuresti 1

Phone: +40 21 314 25 77
Fax: +40 21 319 25 11
Email: lucian.barbu@cfr.ro

SLOVAKIA
Železnice Slovenskej Republiky

Contact person:
VLADIMÍR NASTIŠIN
Klemensova 8
SK-81361 Bratislava

Phone: +421 2 2029 2886
Fax: +421 2 2029 4715
Email: oss@zsr.sk

SLOVENIA
SŽ Slovenske železnice d.o.o.

Contact person:
PETER LEŠNIK
SI - 1506 Ljubljana, Trg OF 6

Phone: +386 1 29 13474
Fax: +386 1 29 14 822
Email: peter.lesnik@slo-zeleznice.si

SPAIN
Administrador de Infraestructuras Ferroviarias (ADIF)

Contact person:
FÉLIX BARTOLOMÉ
Calle Hiedra 9
Estación de Chamartín, Edificio 23
ES - 28036 Madrid

Phone: +34 91 774 47 74
Email: fbartolomea@adif.es

Línea Figueras Perpignan S.A.
JEAN-FRANÇOIS PESCADOR

Base de Manteniminto
Ctra. de Llers a Hostalets
GIP-5107, km. 1
ES - 17730 LLERS (Girona)

Phone: + 34 972 678 800
Fax: +34 972.514.530
Email: jfpescador@lfpperthus.com

SWEDEN
Trafikverket Swedish Transport Administration

Contact person:
PER-ÅKE WÄRN
Box 366
SE - 20123 Malmö

Phone: +46 10 123 7823
Mobile: +46 703 51 43 76
Email: oss@trafikverket.se

SWITZERLAND
SBB Infrastructure

Hilfikerstrasse 3
CH - 3000 Bern 65

Email: onestopshop@sbb.ch

SWITZERLAND
Trasse Schweiz AG

Contact person:
CHRISTOPH RÜEGG
Swiss Train Paths Ltd
Schwarztorstrasse 31
Postfach
CH - 3001 Bern

Phone: +41 (0)31 384 20 40
Fax: +41 (0)31 384 20 41
Email: c.ruegg@trasse.ch

Corridor One-Stop Shop

RHINE-ALPINE CORRIDOR
Phone : +49 (0)1523 7551461
oss@corridor-rhine-alpine.eu
www.rfc-rhine-alpine.eu

Baltic-Adriatic Corridor
Phone : +39 313 804 7616
c-oss@rfc5.eu
www.rfc-baltic-adriatic.eu

CS (Czech-Slovak) Corridor
Phone : +420 972 244 556
oss@rfc9.eu
www.rfc-czech-slovak.eu

NORTH SEA-MEDITERRANEAN CORRIDOR
Phone : +49 (0)32 2 432 28 08
oss@rfc2.eu
www.rfc-northsea-med.eu

MEDITERRANEAN CORRIDOR
Phone : +39 324 829 8130
oss@railfreightcorridor6.eu
www.rfc-mediterranean.eu

Amber Corridor
Phone : +36 30 184 7884
amberrfc-secretariat@vpe.hu

SCANMED CORRIDOR
Phone : +49 (0)69 265-26773
mihaela.vetter@deutschebahn.com
www.rfc-scan-med.eu

ORIENT/EAST-MED CORRIDOR
Phone : +36 1 301 9931
coss@rfc7.com
www.rfc-orient-eastmed.eu

ATLANTIC CORRIDOR
Phone : +39 313 804 7616
c-oss@rfc5.eu
www.rfc-baltic-adriatic.eu

NORTH SEA - BALTIC CORRIDOR
Phone : +49 69 265-26778
coss@rfc8.eu
www.rfc-northsea-baltic.eu

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Ölzeltgasse 3, AT – 1030 Vienna
Phone +43 1 907 62 72 00
Fax +43 1 907 62 72 90
E-mail: mailbox@rne.eu

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