

TAF/TAP workshop
Brussels, September 2017

TAF TSI Business Process & Path Coordination System

TAF TSI Functions Grouped

Joint IM-RU Functions

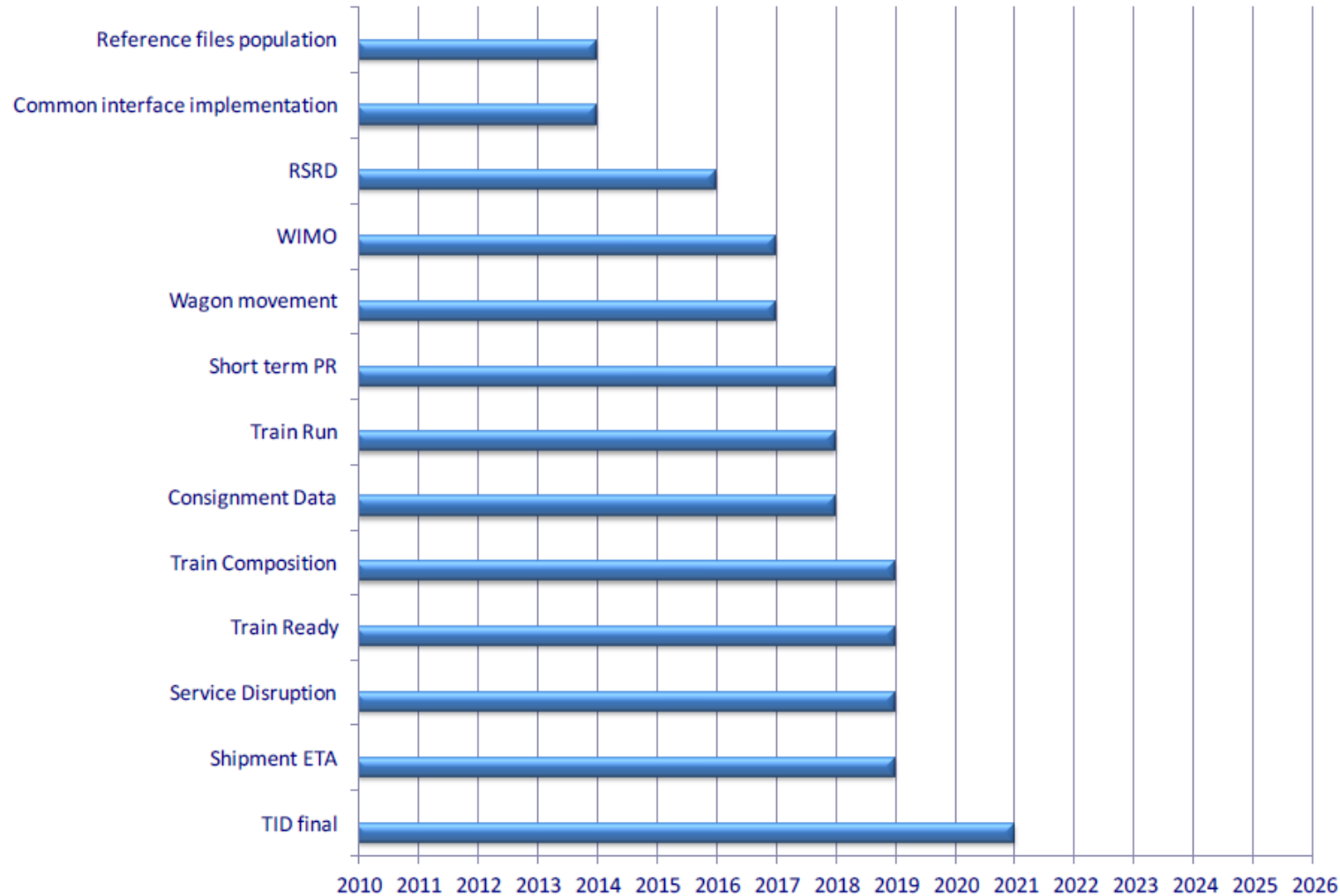
- Reference Files
- Common Interface
- Short Term Path Request
- Train Preparation
- Train Running Information
- Train Forecast
- Service Disruption
- Deviations from plan (TAP)
- (Train Identifiers)

RU (fright) Only Functions *

- Consignment Note Data
- WIMO
- Wagon Movement
- Shipment ETA

** Commercial part of TAP is not considered in the table*

TAF TSI Business Process & RNE Applications



Reference Files and Common Interface



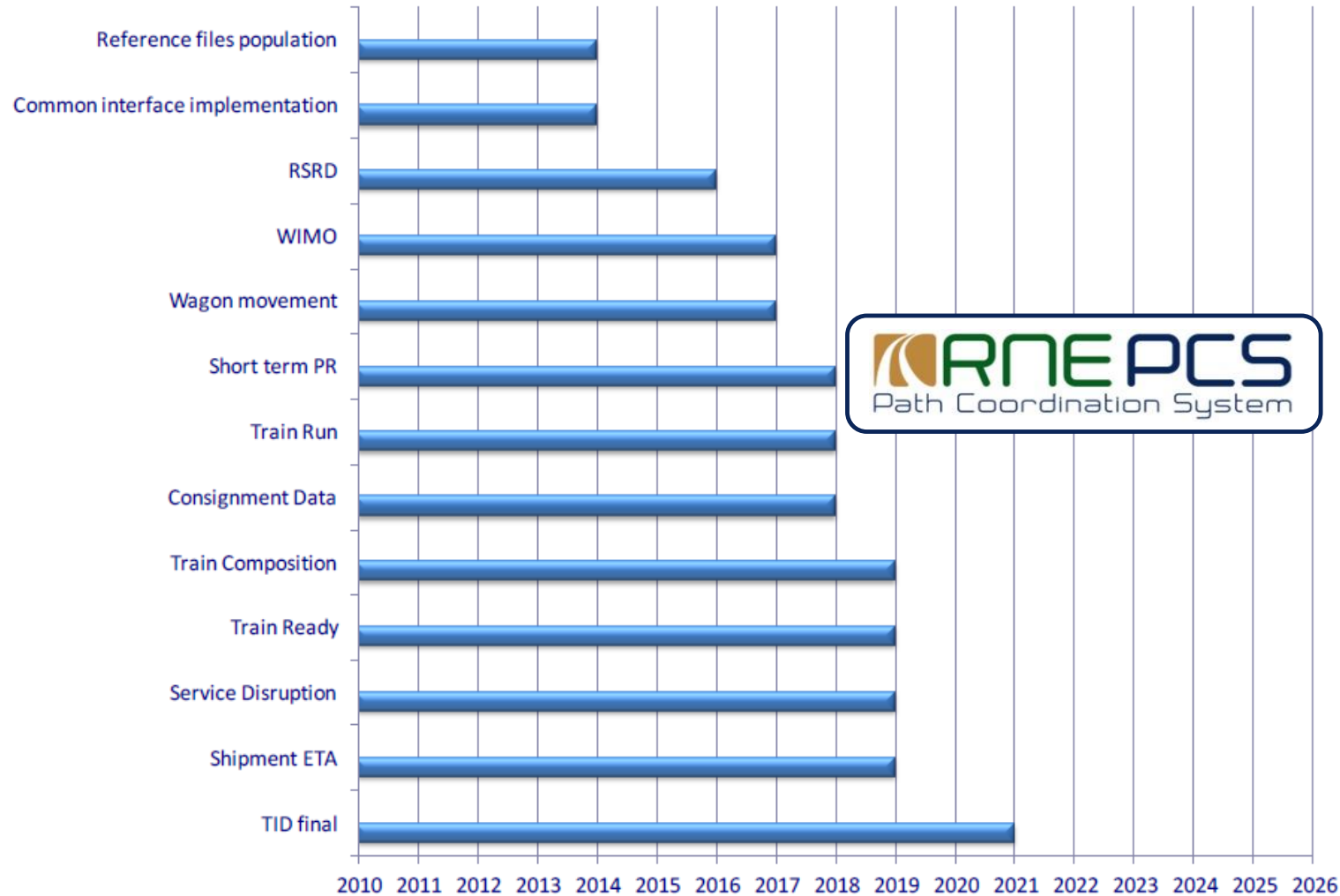
Short Term Path Request



Train Run & Service disruption?



TAF TSI Business Process & RNE Applications



What is PCS?

What is PCS?

The Path Coordination System (PCS) is an international path request coordination system for path applicants:

- Railway Undertakings (RUs)
- Infrastructure Managers (IMs)
- Allocation Bodies (ABs)
- Rail Freight Corridors (RFCs)

PCS optimises international path coordination by ensuring that path requests and offers are harmonised by all involved parties.

What is PCS?

Input for international path requests needs to be placed only once into one system either into domestic application or directly into PCS.

The tool is also applicable for several other functions:

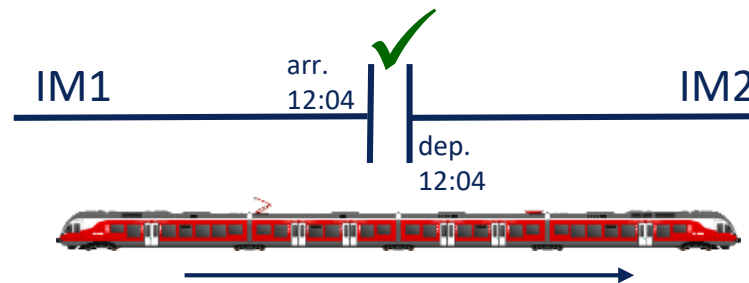
Path Allocation



Pre-Arranged Path Process



Timetable & border point harmonisation

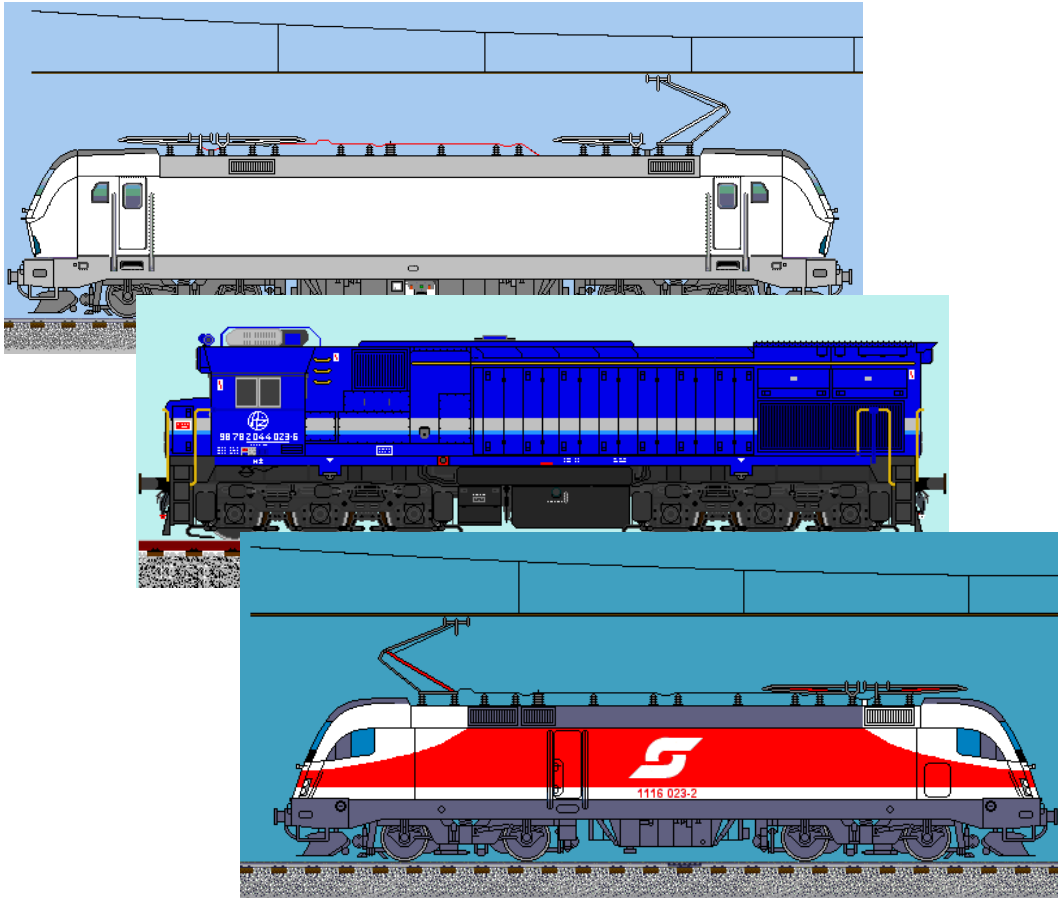


Train composition



Sequence	21	22	23	24	25	26	27
Carriage type	Bmpz	Bmpz	Bmpz	Bmpz	ARmpz	Ampz	Afmpz
Admin	ÖBB	ÖBB	ÖBB	ÖBB	ÖBB	ÖBB	ÖBB
From train	165	165	165	165	165	165	165
From	Budapest	Budapest	Budapest	Budapest	Budapest	Budapest	Budapest
To	München	München	München	München	München	München	München
To train	69	69	69	69	69	69	69

Locomotive administration



Stored information:

- Loco type number (UIC ID)
- Explanation (e.g. nickname)
- Type of Engine
- Train control system
- Weight (t)
- Length (m)
- Top speed (km/h)
- Performance (kW)

GYSEV

Siemens
(Taurus)
Euro Sprinter



Loco type number: 1116

Type of Engine: Electric

Weight: 86t

Length: 20m

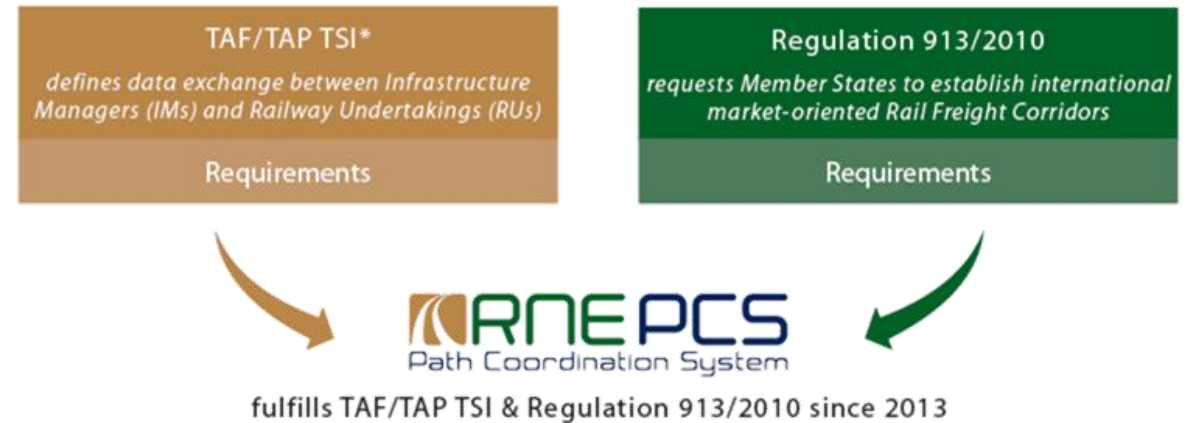
Top Speed: 160 km/h

Performance: 6400 kW

What is in PCS?

PCS is built up from several elements that are co-operating and complementing each other:

- Dossier (= train) as the core element of the system
- Timetable process (2012/34/EU, 913/2010)
- TAF/TAP TSI standards (2006/62/EC)
- Available and reserved capacity
- National IM parameters



Who is in PCS?

Who is in PCS?



1500

Users

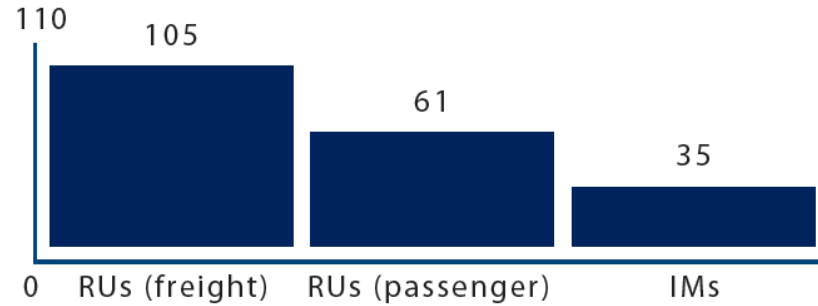
There are approximately 1500 active PCS users



30

Countries

30 countries throughout Europe use PCS on a daily basis



105

**RUs
(freight)**

105 RUs require PCS to coordinate their desired timetables for their international freight lines

61

**RUs
(passenger)**

61 passenger RUs use PCS to coordinate their timetables for international trains across Europe

35

IMs

35 IMs in Europe use PCS to harmonise their paths for cross-border traffic

Who is in PCS?

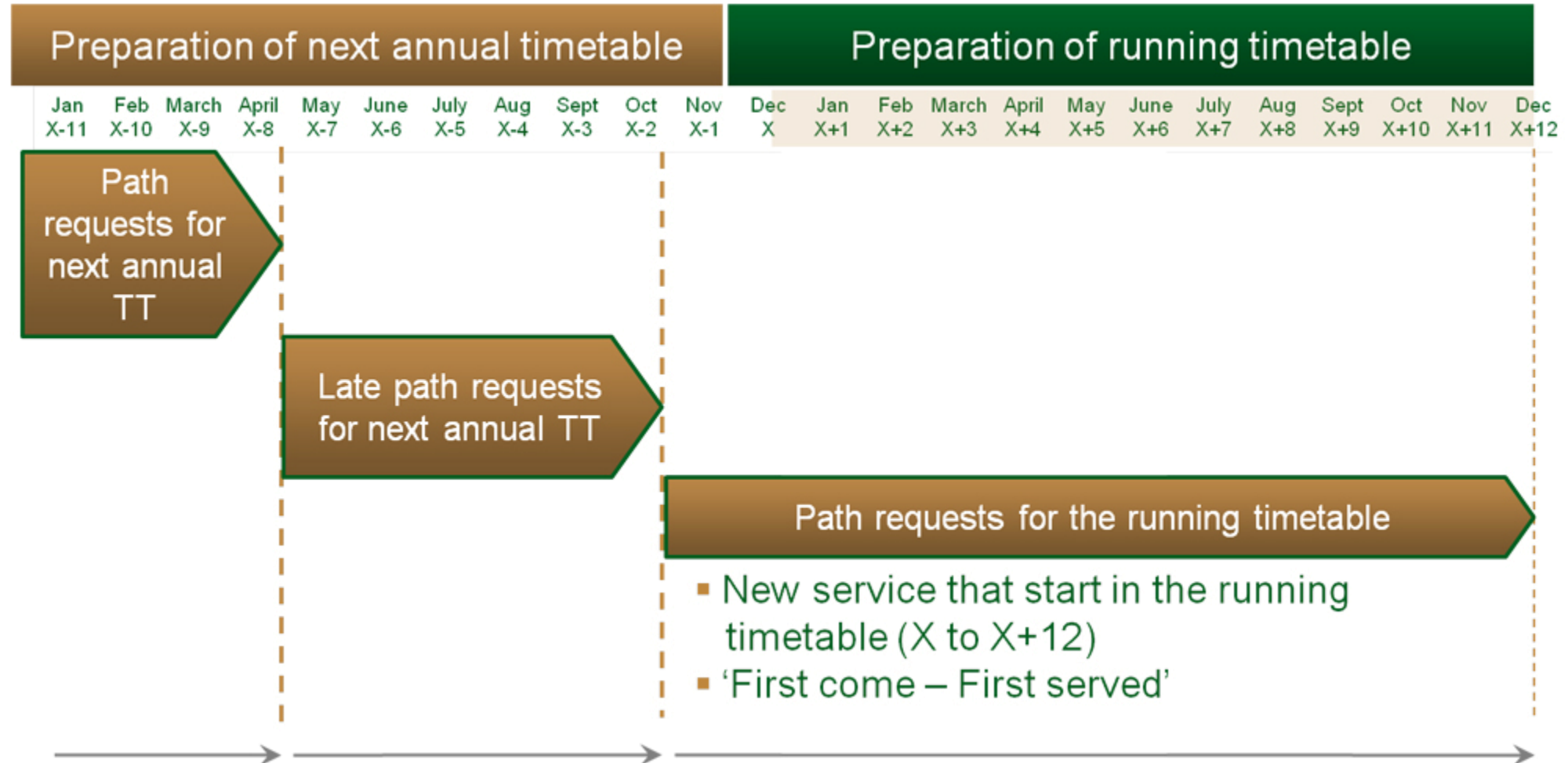


Timetabling process

Legal Basis for Timetabling Process: 2012/34/EU

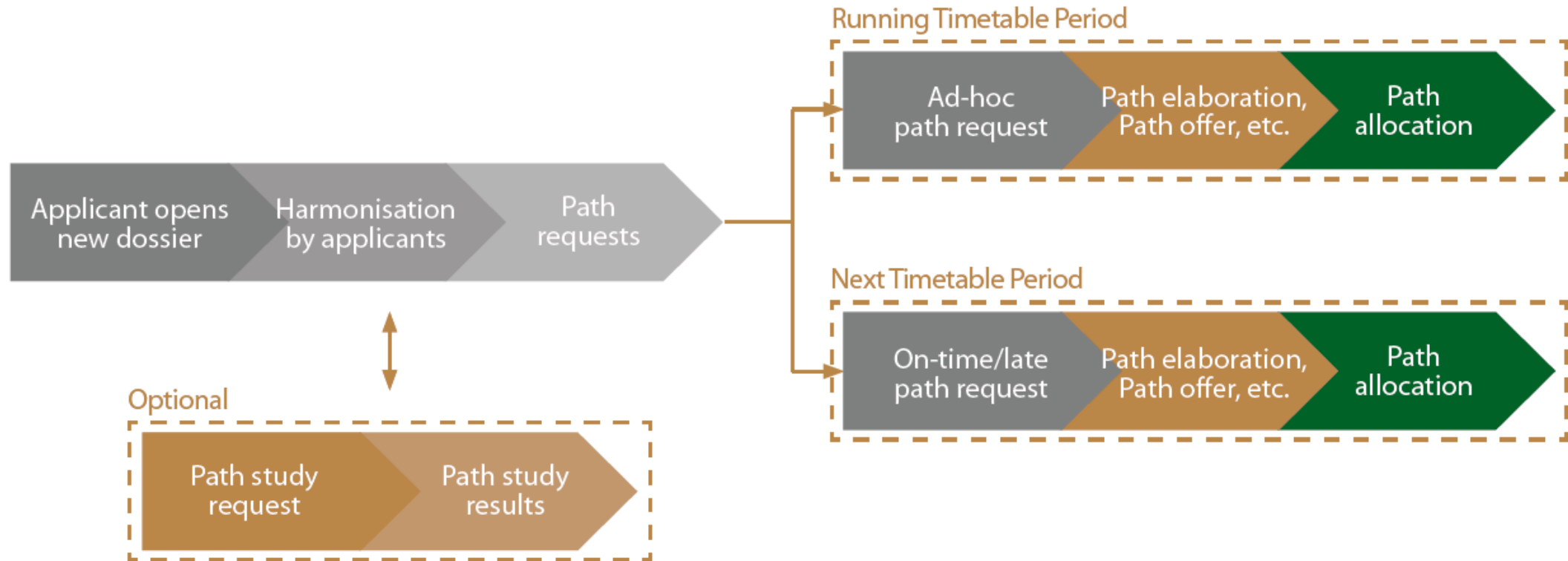
Art. 38:	Capacity rights
Art. 39:	Capacity allocation
Art. 40:	Cooperation in the allocation of infrastructure capacity on more than one network
Art. 41:	Applicants
Art. 43:	Schedule for the allocation process
Art. 45:	Scheduling
Art. 46:	Coordination process
Art. 48:	Ad-hoc requests
Art. 50:	Capacity analysis
Art. 53:	Infrastructure capacity for maintenance work

Timetabling phases



Timetabling process and PCS workflow

Path Coordination System (PCS) and Timetabling Process



→ Automatic recognition of process type according to the time of the year

Overview of PCS functional architecture

Overview of functional architecture



PCS Core System – Web Application

- No installation needed, only a standard web browser
- Users work with web browser and place requests directly into PCS
- Several Excel import/export possibilities are supported

PCS Interface (Integration Platform – PCS IP)

- No double data input – you type it once into your system, the data is forwarded to PCS and vice versa
- Any change in a dossier data or status that is relevant for your company is transmitted to your system



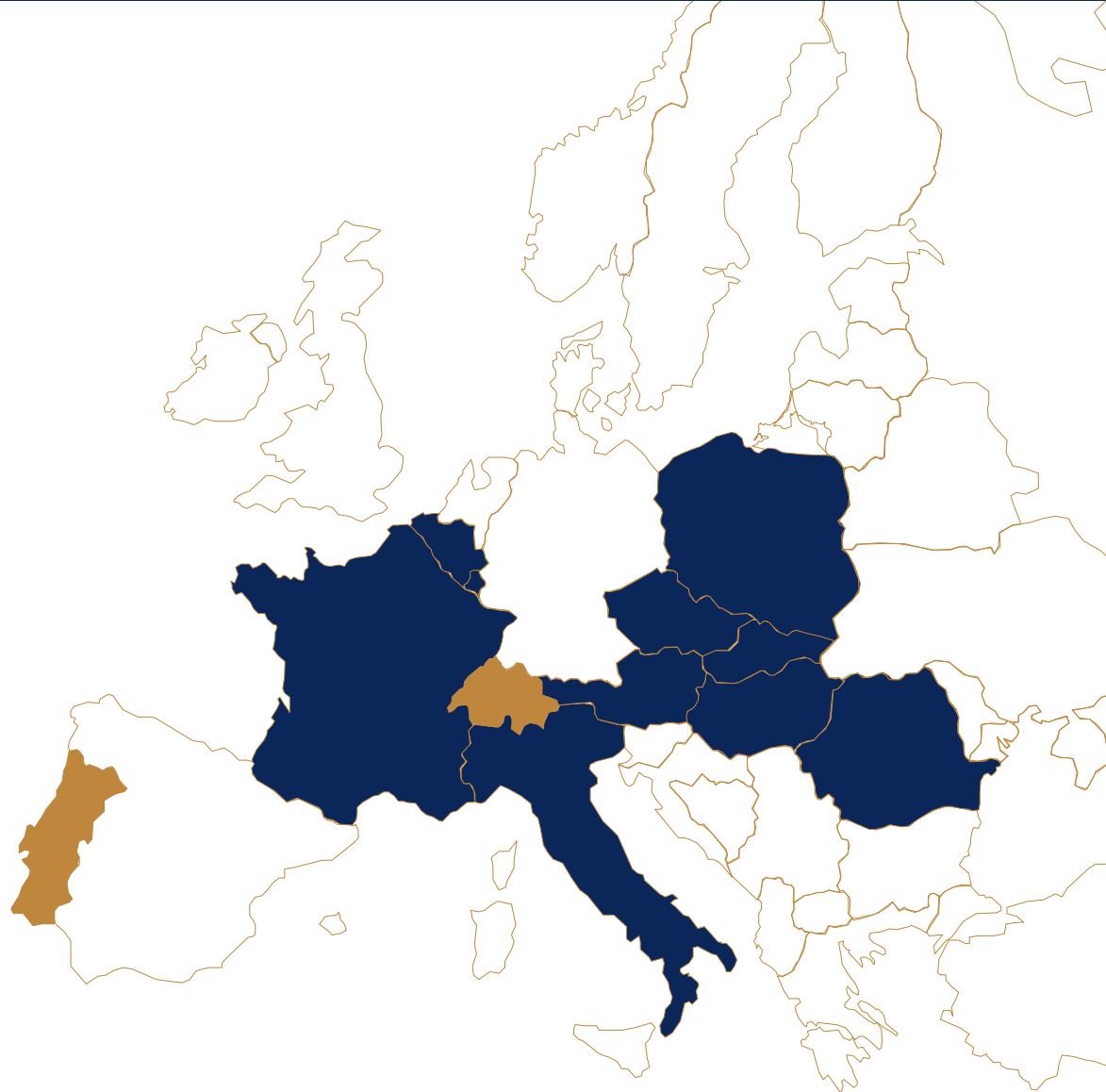
PCS interface map

Current interface partners

CFR, CD, Infrabel, ÖBB, PKP
PLK, RFI, SBB, SNCF Réseau,
SZDC, ZSR, VPE

Future interface partners

DB Cargo, IP, RCA, SBB, SNCB
Logistics



PCS environments

- Production system
<https://pcs-online.rne.eu/pcs/login>



- School system
<https://pcsschool.rne.eu/pcs/login>

The system is kept for training sessions
It's always in the same state as PCS Production



- Test system
<https://pcstest1.rne.eu/pcs/login>

Then company abbreviations (e.g. db-nz, password always 09)
It always comes with the most recent developments



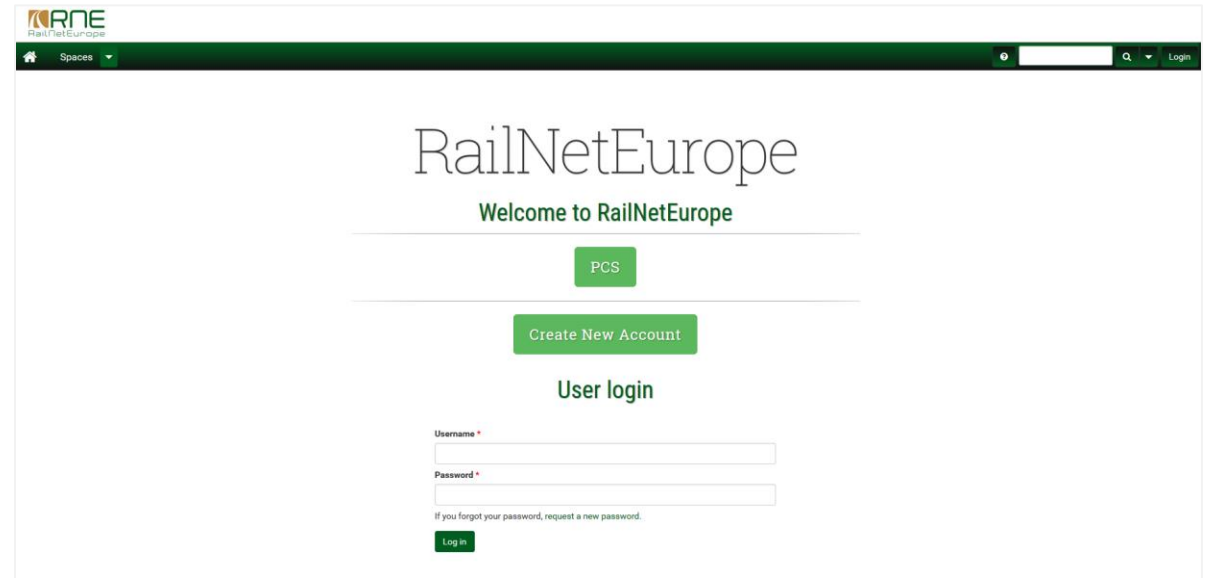
Where can you read about PCS?

Where can you read about PCS?

RNE Content Management System

<http://cms.rne.eu/>

- Public content
- What will you find there?
 - Change Requests
 - Patch Management (fresh bug fixing summary)
 - Documentation:
 - References (e.g. release summary, process description, basic information, general functions)
 - Training materials (e.g. special 'how to do' documents, videos)
 - Technical documentation (e.g. PCS Integration Platform Handbook, Migration Guide)



How do you become a PCS user?

1. Contact PCS Support (support.pcs@rne.eu)
2. Sign PCS User Agreement (if you haven't done so yet)
 - PCS User Agreement
 - PCS Interface Agreement for Users
 - PCS User Agreement with charges
3. Ask for new user account
 - Account with read-only rights
 - Account with editing rights
4. Start working with PCS



Access to PCS is FREE OF CHARGE if your company is an Applicant or a non-RU Applicant on the network of one or more Members of RNE.

Price Model

Price Model from 1st January 2016

- PCS is completely financed by the RNE (Infrastructure Manager's)
 - IMs are financing the System as RNE Members
 - Non RNE Members have a special contract and have to cover their maintenance
- PCS usage for RUs is free of Charge
- PCS usage of the interface is free of Charge
- Additional Services like own test or development system is charged on time and material

Thank you!

