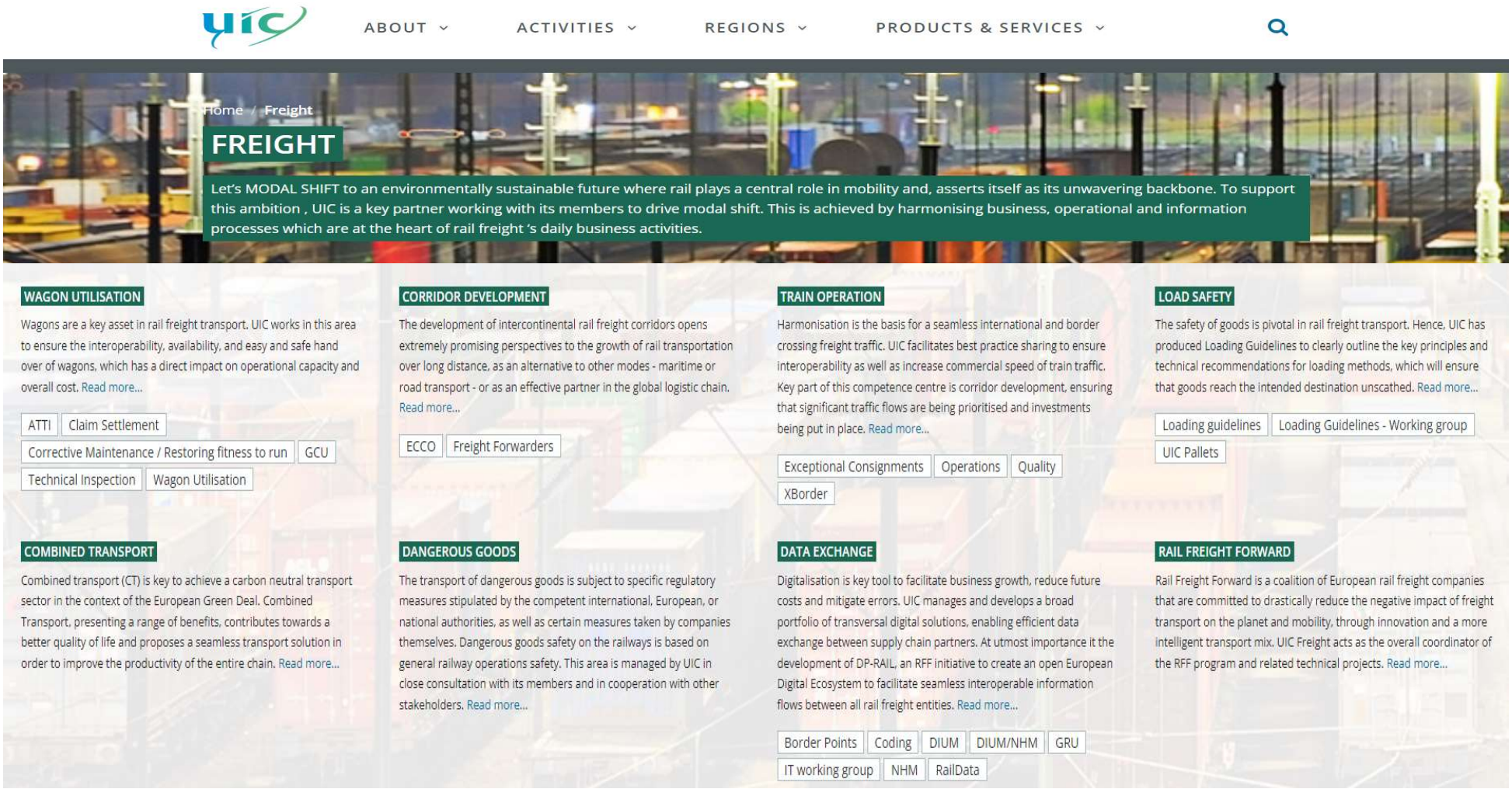
FIT FOR FREIGHT

Corridor development

UIC Freight – competence centres

- LOAD SAFETY
- WAGON UTILISATION
- DANGEROUS GOODS
- TRAIN OPERATION
- COMBINED TRANSPORT
- DATA EXCHANGE
- CORRIDOR DEVELOPMENT
- RAIL FREIGHT FORWARD

UIC Freight – new website



INTERNATIONAL UNION
OF RAILWAYS

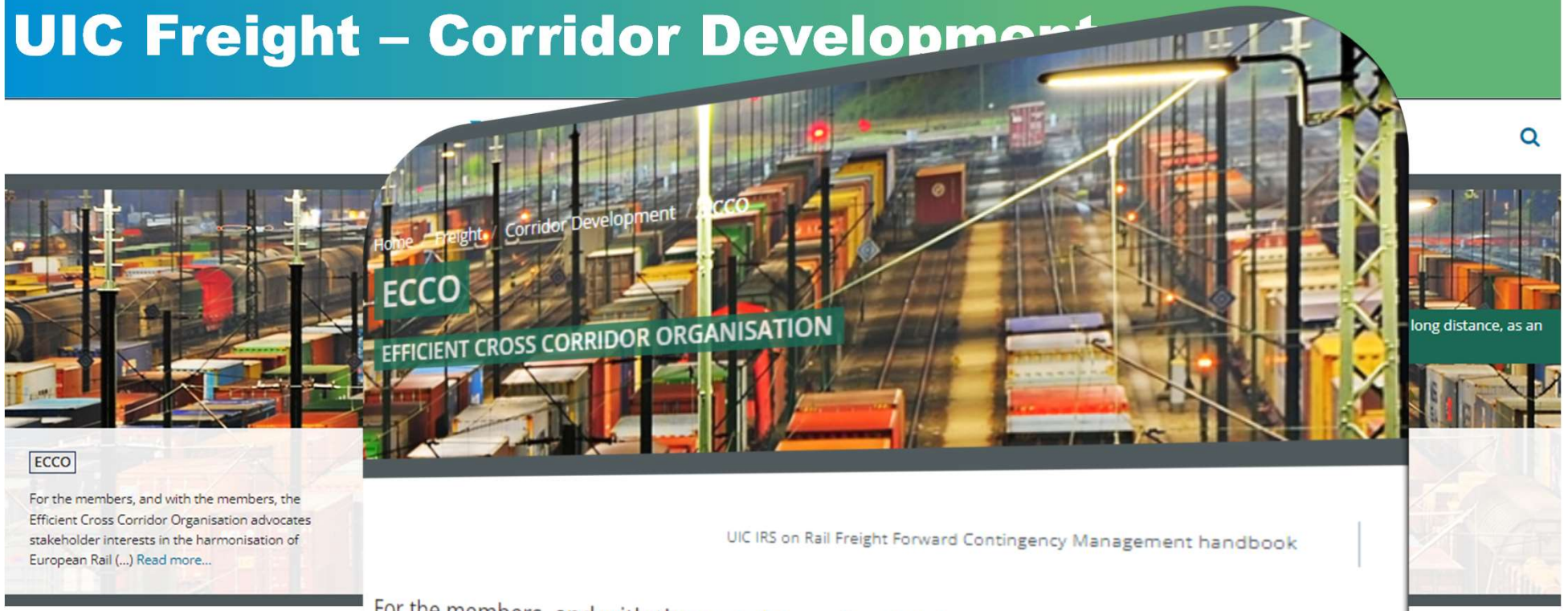
DEEP DIVE INTO
CORRIDOR DEVELOPMENT

INTERNATIONAL UNION
OF RAILWAYS

JOOST OVERDIJKINK, UIC

UIC - ECCO COORDINATION

UIC Freight – Corridor Development

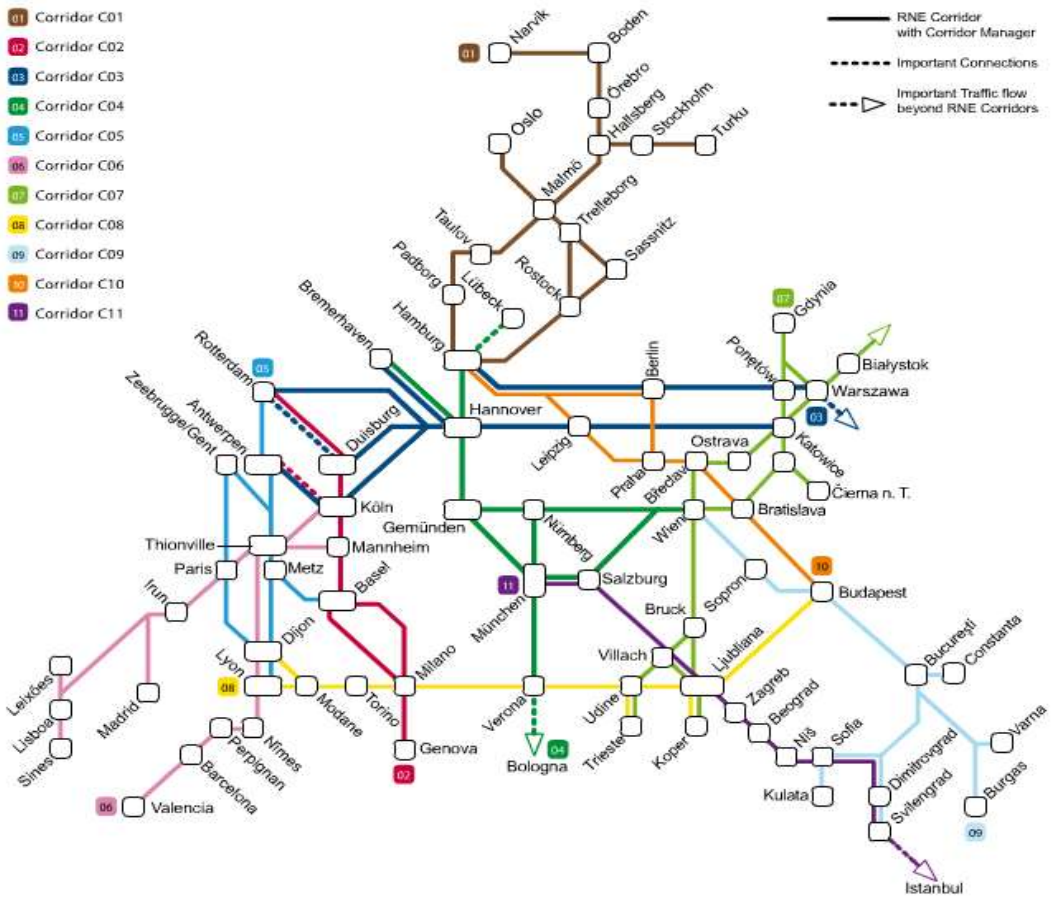



ECCO
EFFICIENT CROSS CORRIDOR ORGANISATION

Corridors as vectors for cooperation
Fostering an international approach to support freight in Europe

Corridor beginnings, 2004 ...

- RNE: Rail Net Europe (established in 2004 by IMs and Capacity Allocation Bodies)
- Exclusively on railway corridors, numbered 1 to 11
- Voluntary coordination common processes and tools (pathfinder, real-time train data, etc.)

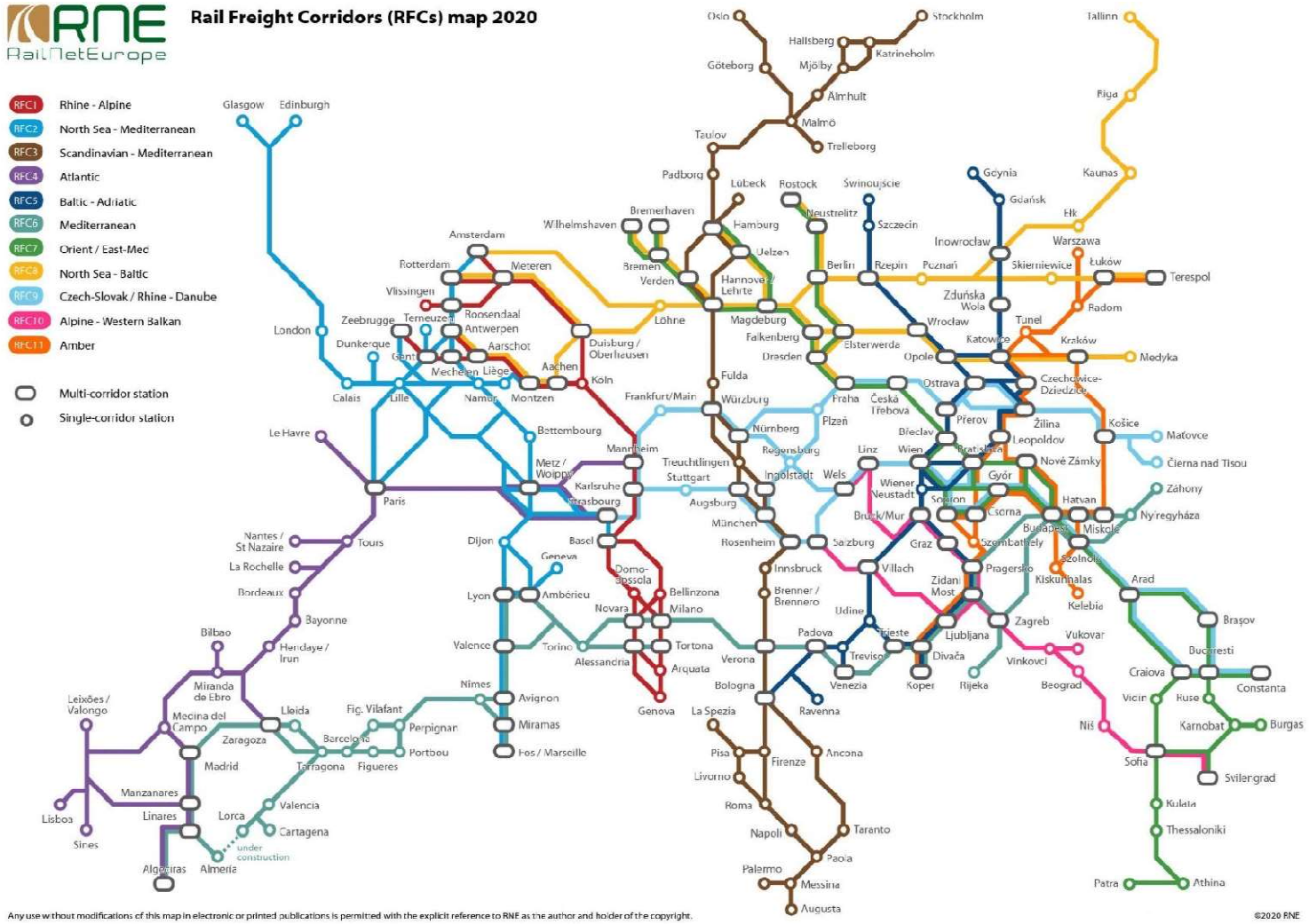


Initial multi-modal corridors, 2007-2013

- Multimodal but with rail priority
- 30 projects
- Budget EU 2007-2013 = 8 billion EUR
  - co-financing studies up to 50%
  - realisation projects up to 20-30%
- Total EU Budget = 225 billion EUR

Rail Freight Corridors (RFCs), 2010...

Regulation No 913/2010 (EU) concerning a European rail network for competitive freight



Corridor basics

Routes:

- Corridors chosen along existing traffic flows and potential, promising new flows
- Connect to transcontinental corridors via Belorussia, Turkey and the Black Sea

Principle products:

→ Offer guaranteed paths along the corridors
→ Coordinate works along the corridor
→ Coordinate disruption management

Governance:

- Corridors are legal entity
  - with a management structure
  - a Railway Advisory Group (called ‘RAG’)
  - a Terminal Advisory Group (called ‘TAG’)
  - and an Executive Board with Member State representation

Rail Freight Corridor (RFC) Network overview

EU policy - Regulation (EU) 913/2010

Implementation and development of Europe-wide network of Rail Freight Corridors

(Additional to the TEN-T Regulation)

Geographics

→ **11 corridors, completion 2030**
→ in the eyes of RUs, corridors are precursor of Network wide TEN-T parameter implementation

Objective of the regulation - **Make rail freight compatible with other modes**

Good quality and sufficiently financed railway infrastructure > freight transport services to be provided under good conditions:

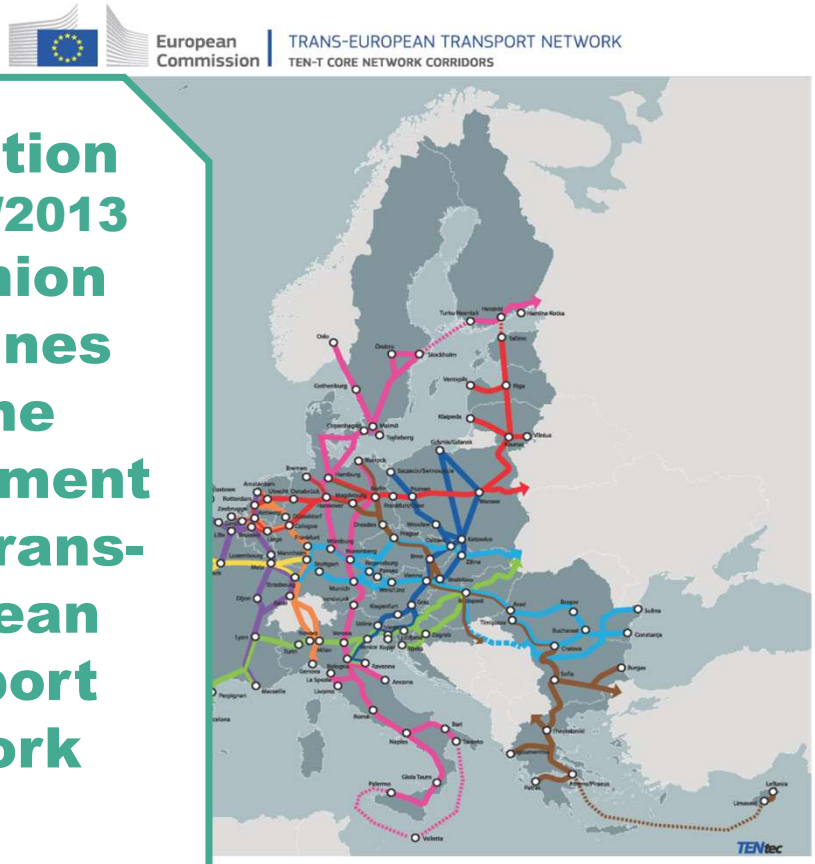
- compatible **commercial speed**
- compatible **journey times**
- **reliable**: service provided by Infra Manager (IM) corresponds to contractual agreement between IM and Railway Undertakings (RUs)

Products:

Capacity reserved for freight, coordinated across borders, platform for international traffic issues to be addressed, coordination of works along the corridor, coordination of disruption management

Trans-European Transport Network (TEN-T), 2013...

Regulation No 1315/2013 (EU) Union guidelines for the development of the trans-European transport network



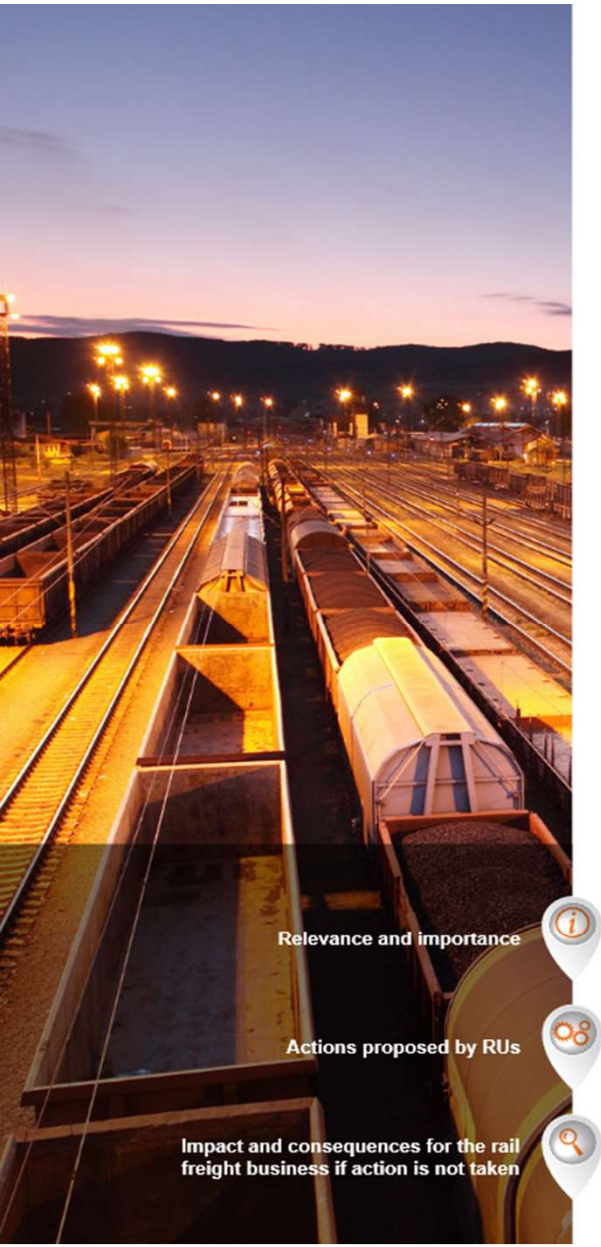
Harmonised infrastructure

Main infra parameters for corridors:

- ECTS-ERTMS
- loading gauge P400
- electrification
- 740m trains
- 22.5 tons axle load

UIC corridor requirements and parameters study:

https://uic.org/IMG/pdf/requirements-ru-4the-implementation-of-european-rail-freight-corridors.pdf



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REQUIREMENTS OF RAILWAY UNDERTAKINGS FOR THE IMPLEMENTATION OF EUROPEAN RAIL FREIGHT CORRIDORS

TABLE OF CONTENTS

Trans-European Transport Network (TEN-T) overview

EU policy - Regulation (EU) 1315/2013

Implementation and development of Europe-wide network of:

- Railway lines and terminals
- Roads
- Inland waterways & Maritime shipping routes
- Ports & Airports

Part of EU objective - **Single European Transport Area**

Seamless, safe and sustainable mobility of persons and goods

Geographics

→ Core Network: **9 corridors, completion of parameter implementation 2030**
→ Comprehensive Network: covers all European regions completion 2050

Objective of Regulation:

→ close gaps
→ remove bottlenecks
→ remove technical barriers (harmonized infrastructure)
→ strengthen social, economic and territorial cohesion in the EU

Standard parameters for harmonized infrastructure:

740m trains, 22.5t max axle load, loading gauge CP70/400, electrification, ERTMS

Tools

→ Financial incentives via different support programmes

What rail freight needed:

- smooth, ‘borderless’ international traffic
  - harmonised infrastructure parameters, rules, procedures
- smooth interchange between modes
- enough capacity conforming to market needs

EU response:

- Rail Freight Corridors offering guaranteed capacity
- Trans-European Network corridors to
  - stimulate and concentrate infrastructure investments
  - implement standard, high-level infra parameters;
- SERA uniforming national regulations

...evaluation in a nutshell

Challenge for Rail:

- ! All modes promoted, strong counter-lobbies non-rail modes hamper rail freight transport
  Consequences:
  - ! Implementation TEN-T parameters lags behind
  - ! ERTMS is not implemented in harmonized way
- ! Get member-state focus on Rail:
  - ➢ Investing in Harmonization & Parameters
  - ➢ Level playing field

Positive:

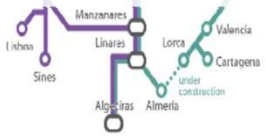
- ✓ The legal basis fosters national investments and makes EU aid possible
- ✓ There is an agreed goal amongst states: a Single European Railway Area.
- ✓ UIC objectives match EU objectives

Challenge for Rail:

- ! Regulations cannot be enforced. Consequences:
  - ! Products mostly not market oriented or sub-par

Positive:

- ✓ Flexible paths
- ✓ There is an official international platform, recognized by all EU governments, where IMs and RUs meet and can address their issues related to international freight. RUs are increasingly heard.
- ✓ Cooperation is fostered.
  - ✓ ICM
  - ✓ RUs unite in their messaging
  - ✓ IMs cooperate more on cross border lines
  - ✓ Harmonization of processes is taking place, UIC often coordinator




ECCO
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Coordination

Devise joint new solutions for RUs

Best practice sharing

Vector for sector projects

Take initiative

Share issues

Joint input IM/RFC

Cross-vertilization

Joint representation corridor management

Operational input CEOs

INTERNATIONAL UNION
OF RAILWAYS

ANDREA MARCO PENSO, DB CARGO
CHAIR RU ADVISORY GROUP RFC SCAN-MED

INFLUENCING CROSS BORDER GIGA PROJECTS

Infrastructure

- CCS system
- Catenary voltage

Locomotives

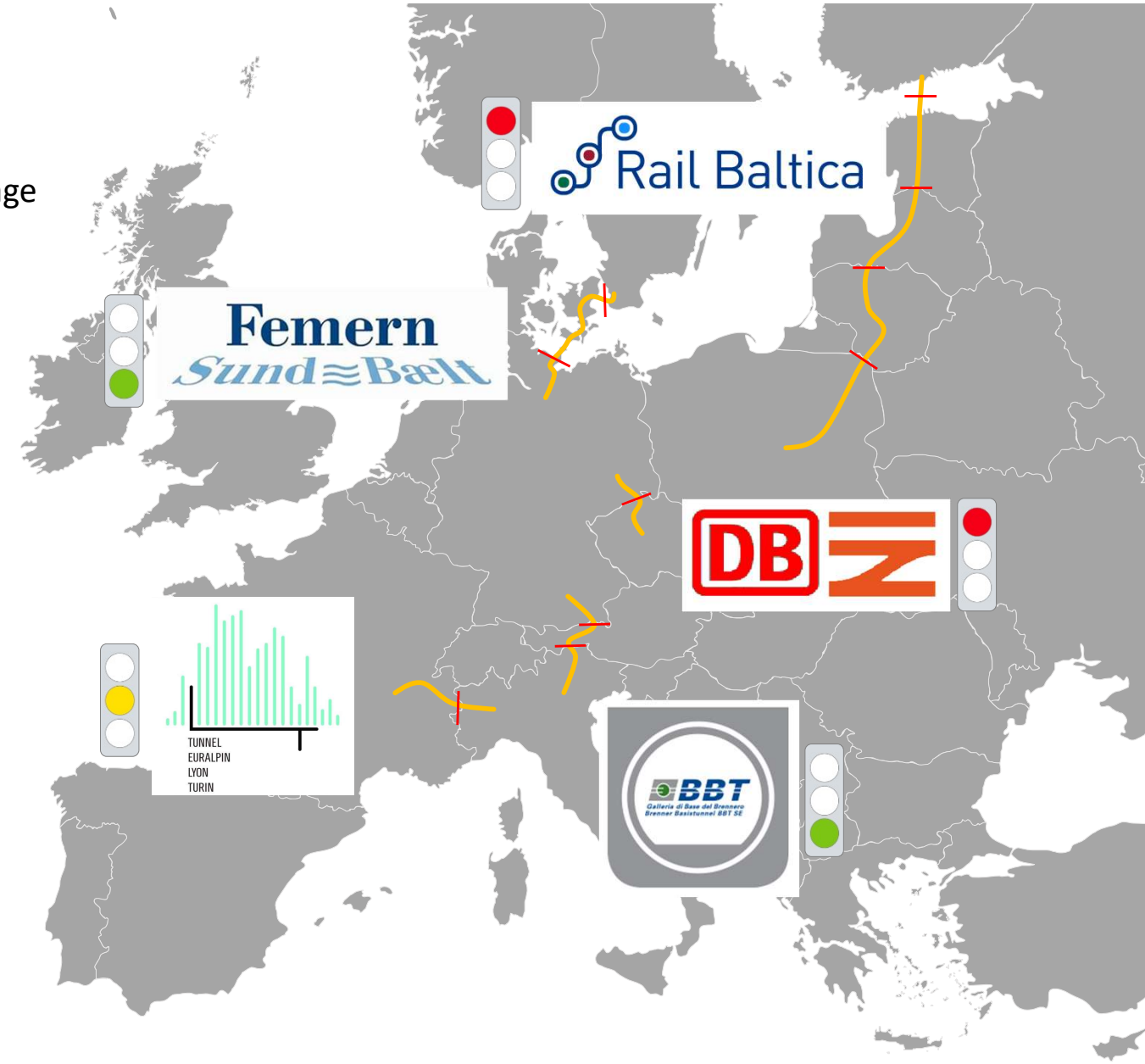
- Voltage
- CCS on-board unit
- Pantograph geometry and contact strip material

Operations

- Activities at borders due to national rules (train parameters, train composition, brake settings, waste and RID transports)
- RU-IM communication
- Train operating rules (simplified corridor certification)

Labour aspects

- Taxation regime
- Health and safety laws



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MARTIN ERLINGER, RAIL CARGO GROUP
CHAIR RU ADVISORY GROUP RFC RHINE-DANUBE

QUALITY CIRCLE OPERATIONS

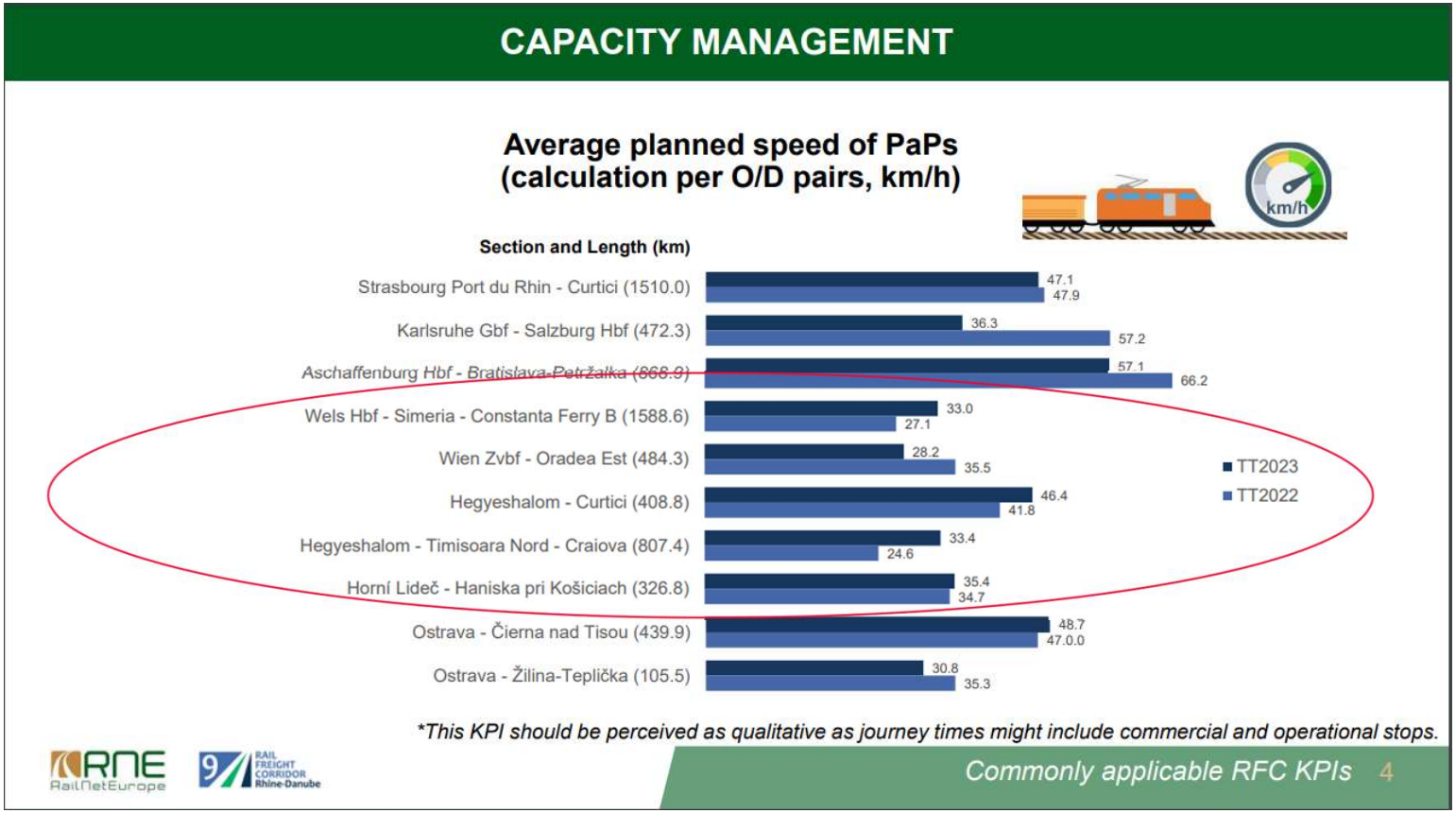
The payoff of endurance

Passau & Curtici border crossings and enhancing traffic fluidity

Martin Erlinger – Chair RU AG RFC RhD

Rail Freight Corridors as *the* driver of competitive international rail freight traffic

Speed and reliability do matter - they are main pre-requisites for modal shift



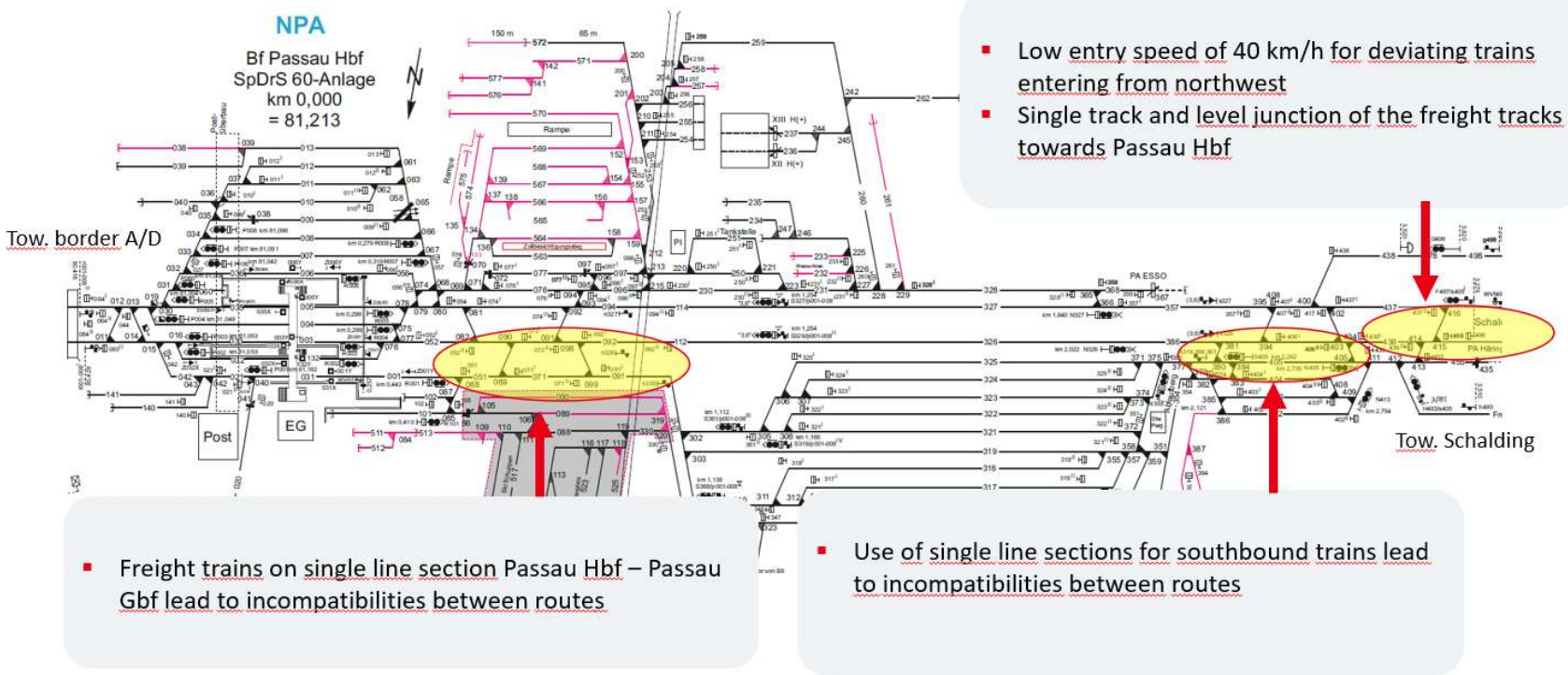
A planned average train path speed of about 30 km/h is certainly not sufficient for an international quality transport on rail.

And the actual speed is often even lower due to operational delays on the way…

Passau Hbf/Gbf

Main challenges at Passau - Station design and Carrier diversity

Passau node



- Low entry speed of 40 km/h for deviating trains entering from northwest
- Single track and level junction of the freight tracks towards Passau Hbf

- Freight trains on single line section Passau Hbf – Passau Gbf lead to incompatibilities between routes

- Use of single line sections for southbound trains lead to incompatibilities between routes

The combination of the above mentioned insufficiencies leads to a bottleneck-situation

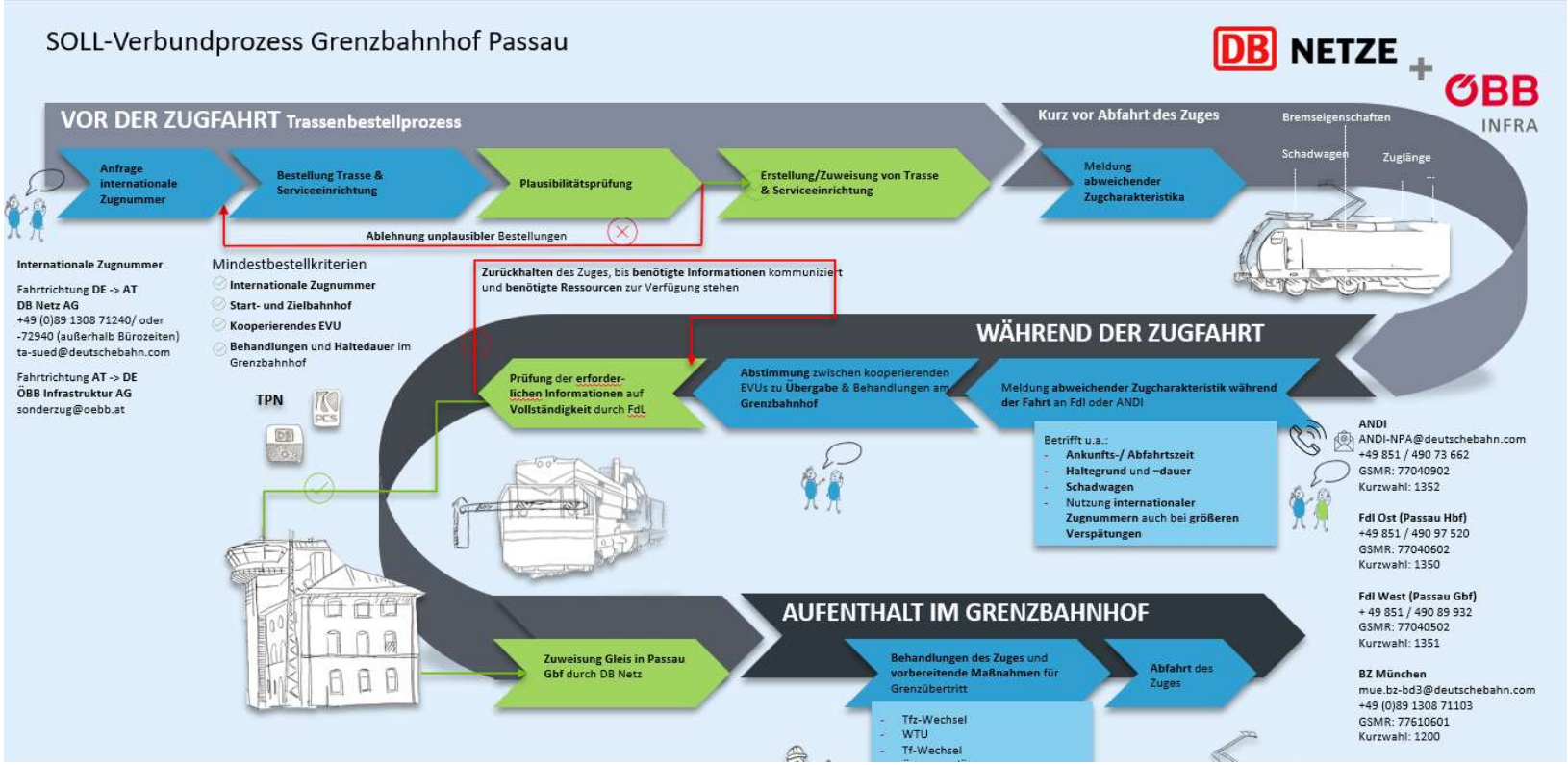
Train dispatching becomes inceasingly challenging due to

- Less buffer tracks between Regensburg and Passau from north-east and respectively between Wels and Passau from south-east

This requires

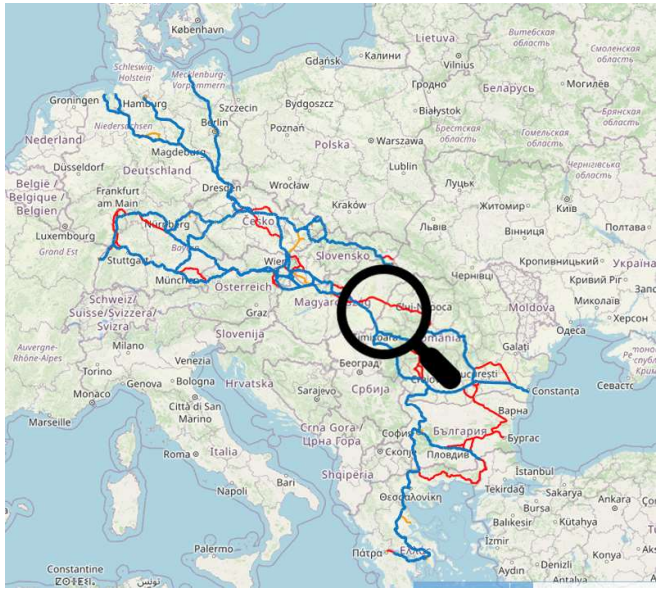
- early, efficient and well established communiction flows and procedures between involved cooperating Railway Undertakings and between RUs and IMs

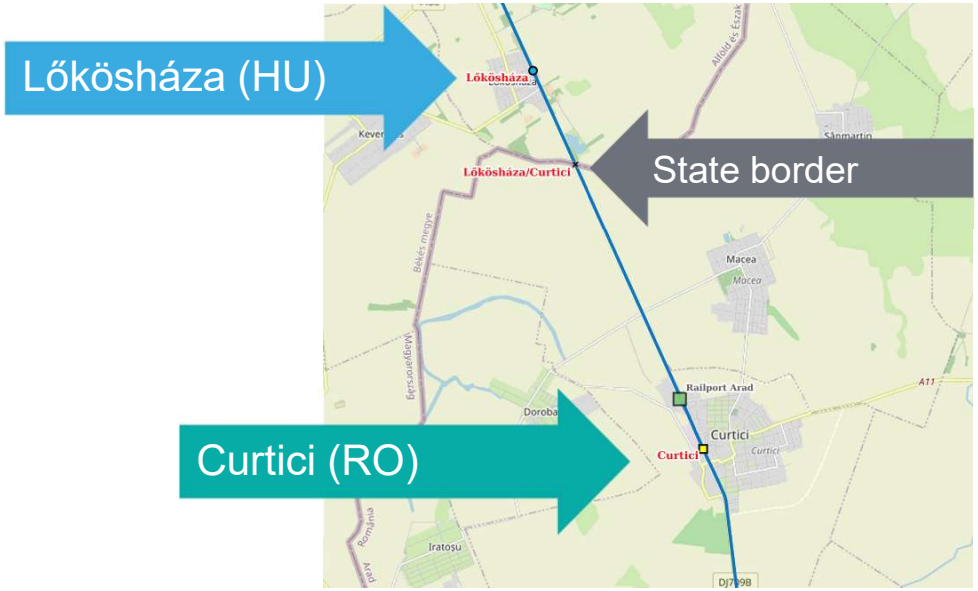
Railway Undertakings and Infra Managers jointly worked on an optimisation of border procedure-related communication process



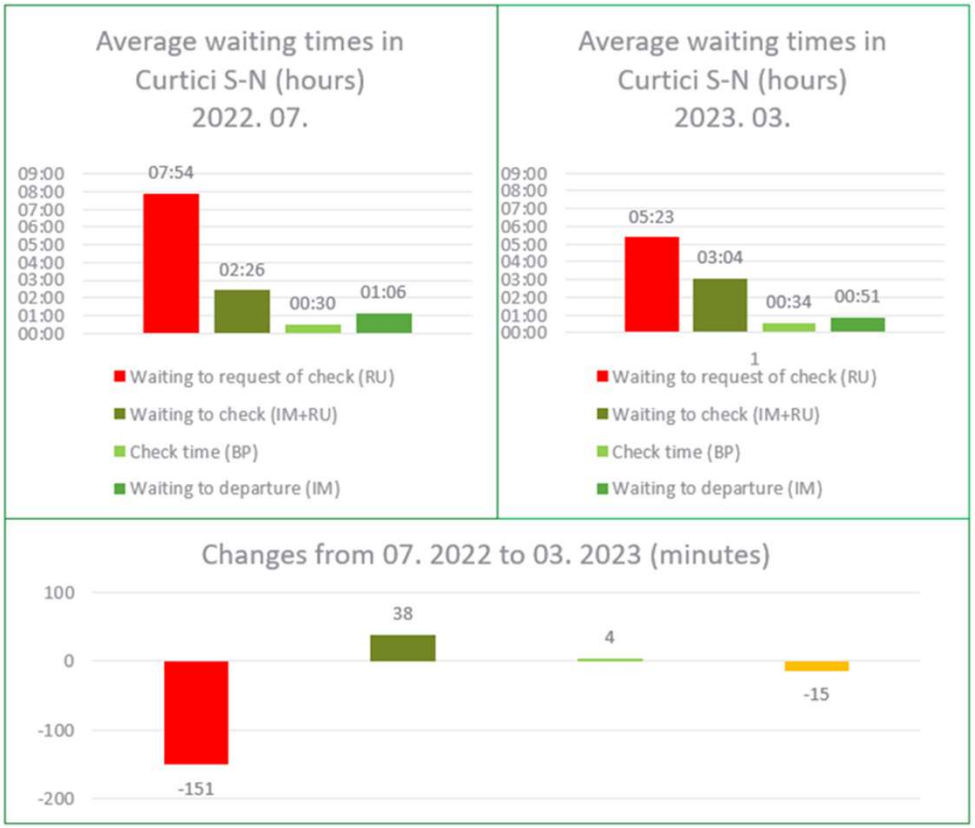
Curtici/Lőkösháza

Required stops at both sides of the HU/RO border are a significant source of poor transport speed





Challenge at Curtici – complexity of the train hand over with various interdependencies of single process steps



RFC7 Orient/East-Med

RAIL FREIGHT CORRIDOR Rhine-Danube

Co-financed by the European Union Connecting Europe Facility

Vienna, 17th December 2021

From:
Chairs of Executive Boards
Chairs of Management Boards
Speakers of Railways Undertakings Advisory Groups of
Orient/East-Med and Rhine-Danube Rail Freight Corridors

To:
Ministry of Foreign Affairs and Trade of Hungary
Ministry of Internal Affairs of Romania

Dear colleagues from Ministry of Foreign Affairs and Trade of Hungary,
Dear colleagues from Ministry of Internal Affairs of Romania,

The Rail Freight Corridors (RFCs), established by the Regulation (EU) No 913/2010 of the European Parliament and of the Council of 22 September 2010 concerning a European rail network for competitive freight, have succeeded in creating platforms for functional dialogue between the various stakeholders in rail transport, particularly concerning freight. Ministries, Railway Infrastructure Managers, Railway Undertakings and Terminals, in collaboration with the European Commission, cooperate in this framework to further develop European rail freight, to meet the objectives of decarbonisation of transport, competitiveness and reliability.

The Orient / East-Med (OEM) and Rhine-Danube (RHD) Rail Freight Corridors share both a similar route in the heart of Europe and similar issues dealing with the transport flows from West to East and from North to South. The governance structures of both RFCs, composed of the representatives of Member States and national Railway Infrastructure Managers agreed from the beginning of the establishment of both RFCs, to cooperate closely and work together to improve international rail freight transport.

To this end, the representatives of the Railway Undertakings (RUs) providing services on these two RFCs have informed us, that the current situation encountered at the border crossings between Hungary and Romania is considered a major gap concerning the efficiency of the corridor. The Railway Undertakings' Advisory Group (RAG) members have jointly identified the border police train controls on the outside border of the Schengen Area as the main driver for exhaustive dwelling times at Curtici station, not only but especially for freight trains entering the Schengen area.

The representatives from Hungary and Romania within the Executive Boards of the two RFCs have informed us that the Hungarian and Romanian governments are working together to find solutions, and we, together with the different stakeholders of the RFCs, and the European Commission, welcome very much these actions and thank you for taking these issues into political consideration.

Federal Ministry
Republic of Austria
Climate Action, Environment, Energy, Mobility, Innovation and Technology

Waiting time for border-police checks at Curtici station - RO-HU direction (minutes)

- **For April 2023:**

5h*xEUR/hour/train*300trains/month

- **additional cost due to waiting for police border control and waiting for departure (after train is ready)**

Current situation imposes a significant burden to RUs and requires quick relief !

Stops at Curtici and Lőkösháza as a significant source of poor transport speed

An urgently needed **significant dwell-time reduction** will especially require

- a **one-stop only** policy for train runs in **both directions**
- **quicker availability** of the police staff to **start** with the inspections **earlier**
- **more staff** or **technical support to perform more inspections in parallel**

… but we, the RUs, **can we help** to mitigate the problems and speed up the handling in Curtici?

Yes, we can!

- Avoid technical inspection through using ATTI agreement
- Use as much as possible interoperable locomotives and train drivers (no changes at border station)

Most important effect:
Make Romania part of the Schengen Zone!

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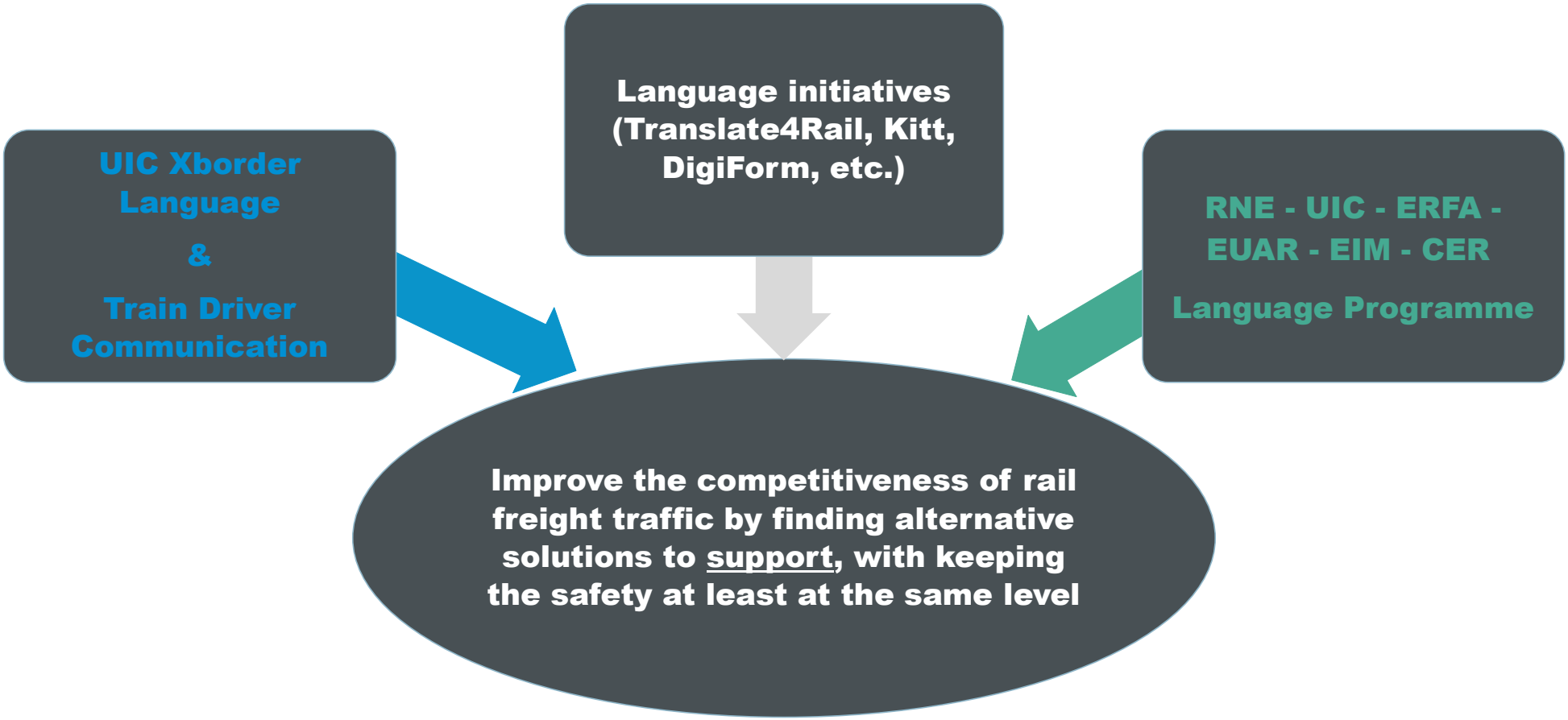
PARINAZ BAZEGHI, UIC

LANGUAGE HARMONISATION

Why language initiatives?

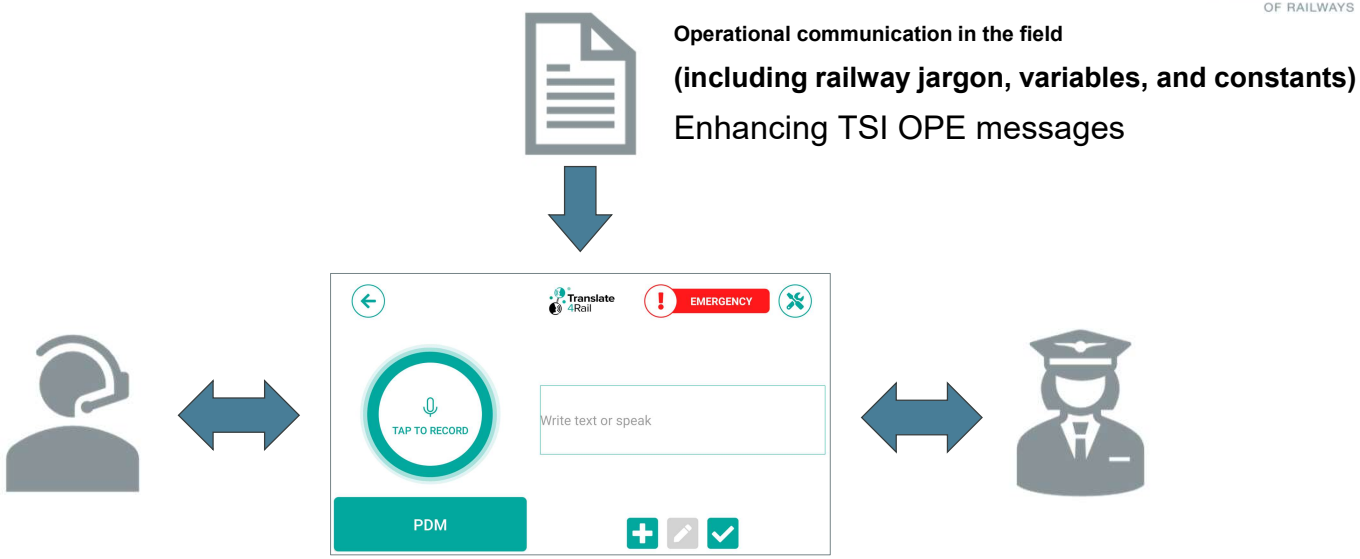
- **Rail Freight sector ambition: to increase the modal share from ~18% to 30% by 2030**
- **RFCs are facing with language related inefficiencies in different levels**
- Interoperability barriers still exist – one of them B1 level language proficiency requirement for train drivers
- Our goal: support the implementation of SERA (Single European Railway Area) by overcoming the language barriers in cross-border rail freight operation
- **Current bottlenecks:**
  - driver shortage
  - incident impact mitigation (eg. rerouting options)

Initiatives with the same goal demonstrating a best practice sector approach



Translate4Rail project contribution

- Enabling operational communication in the field between train driver and traffic controller
- Addressing B1 language competence acquisition



https://translate4rail.eu/

Achievements and work in progress

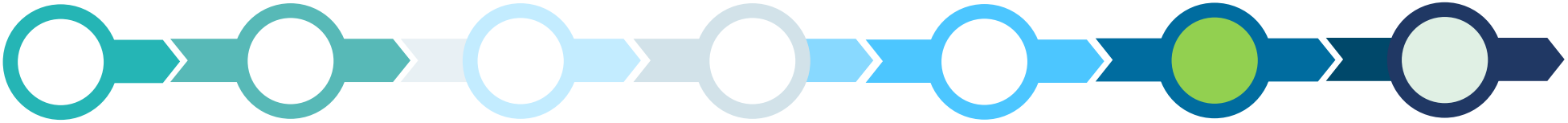
Translate 4Rail

Pilot Italy - Slovenia
T4R LT tested

On-going Pilot between Italy - Switzerland

Seeking for EU funding means to scale up

High interest and support from the sector



2019 - 2021

2022 - 2023

2024 - 2025

Shift2Rail

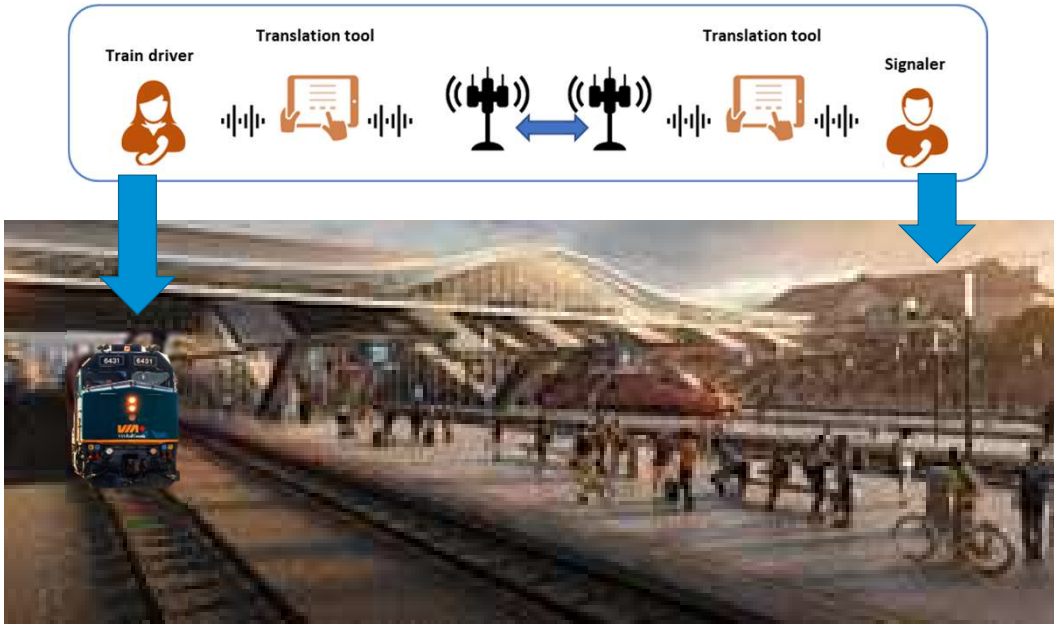
Pilot ITALY - AUSTRIA (Villach - Tarvisio - Pontebba)

Part I

- T4R LT app functionalities, Selection & Editing of Predefined messages
- Connection tests

Part II

- Scenarios: Damage of the switch, Break test, Shunting



Pilot ITALY - AUSTRIA (Villach - Tarvisio - Pontebba)

Breaking language barriers in the railway sector

Translate 4Rail

This project has received funding from the Shift2Rail Joint Undertaking (JU) under the grant agreement No 881779. The JU receives support from the European Union´s Horizon 2020 research and innovation programme and the Shift2Rail JU members other than the Union.

Special thanks to

Infrastructure Managers

RFI RETE FERROVIARIA ITALIANA GRUPPO FERROVIE DELLO STATO ITALIANE

ÖBB INFRA

ÖBB TRAIN TECH

Railway Undertakings

DB Cargo

Lokomotion

Rail Cargo Group Member of ÖBB

Rail Traction Company SPA

Key findings

- The Tool supported users in accurate and more efficient communication based on operational rules
- Higher confidence was reached, in communication between users who were not speaking the same language
- Tool connection compatible with existing European Railway Communication System (GSM-R)

Translate 4Rail

Achievements and work in progress

Translate 4Rail

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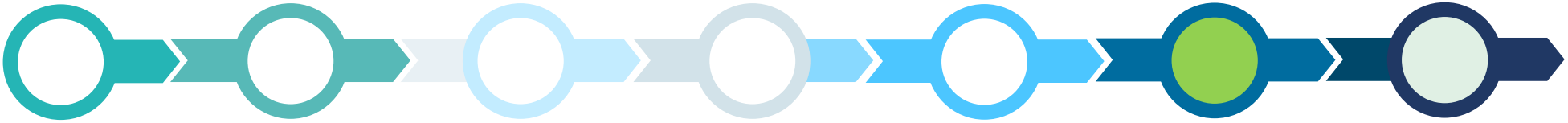


2019 - 2021

2022 - 2023

2024 - 2025

Shift2Rail

Train Driver Communication project

One – year project
2023 – 2024

Pilot testing of language tool (T4R) prototype in real operational situations

Assess the tool as training mean to facilitate learning railway terminology and operational messages

Members of the project:

bls cargo · CFL cargo · FERROVIE DELLO STATO ITALIANE · LINEAS YOUR FREIGHT FORCE · SNCF · SBB Cargo International

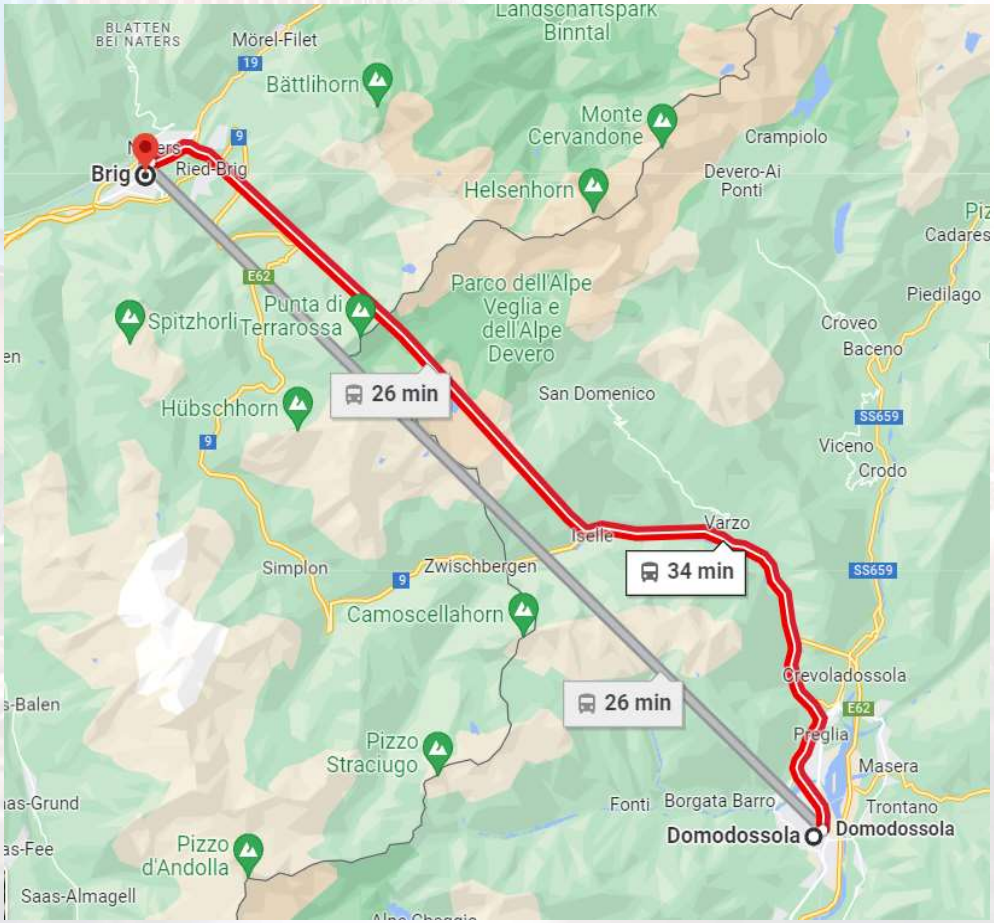
Pilot testing in operational situation

Pilot between **Domo 2 - Domodossola – Brig – border between Italy and Switzerland**

To use T4R tool prototype in the **real operational situation** *(with drivers who already run in the section)*

To **assist** train drivers to increase the quality of the communication

Assess the usage of the tool as a **training mean**



Way forward

Further testing and Pilots to:

- Identify the use cases the best fit the tablet-based tool usage
  - IM-RU communication in operation
  - IM-IM communication
  - Training
  - etc.
- Test the tool in different environments/situations
- Scale up from TRL 5 to TRL 8: Ready for operational usage

Closing words

These were examples of international cooperation on the corridors promoted within the ECCO project. They have the potential for long-lasting success and increased significance as we continue to advocate these experiences on other locations over the network.

For questions after the webinar:

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Fit for Freight – Corridor Development podcast

100 YEARS ANNIVERSARY

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Thank you for your attention.