

**Meeting of the Advisory
Groups of Railway
Undertakings and Terminals**

Vienna/ HYBRID – 30 March 2023

RNE TIS between platforms for sharing search data on the movement of goods and people

flightradar24
LIVE AIR TRAFFIC

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EXS57PA

BRS → **PMI**
BRISTOL → MA DE MALLORCA
SCHEDULED 7:30 AM SCHEDULED 10:50 AM
ACTUAL 7:39 AM ESTIMATED 10:42 AM

RNE TIS
Train Information System

Trains Diagrams Configuration Incident Management Email Notifications Help Peter

Train Search

Passenger Freight Others National International

Maximum number of search results: 1000
Train run must match all locations

Search Train Number 1000 Results More results are available

2832	0082.TGV	From: Bettembourg-frontl...	24.05.2022	19:40	To: Luxembourg	24.05.2022	19:52
88535	0082.90Thl	From: Luxembourg	24.05.2022	18:39	To: Bettembourg-frontl...	24.05.2022	18:54
88815	0082.90Thl	From: Luxembourg	24.05.2022	18:28	To: Bettembourg-frontl...	24.05.2022	18:43
2138	0082.Bruxl	From: Luxembourg	24.05.2022	15:10	To: Kleinbettingen-fron...	24.05.2022	15:24
36784	0082.CARGO	From: Bettembourg-Marc...	24.05.2022	09:59	To: Pétange secteur Ro...	24.05.2022	10:34
2131	0082.Bruxl	From: Luxembourg	24.05.2022	08:10	To: Kleinbettingen-fron...	24.05.2022	08:24

99662 0080.L3533

- From: Böhlen (b Leipzig) 22.05.2022 08:51
- To: Böhlen (b Leipzig) 22.05.2022 08:51
- To: Biesdorfer Kreuz Ost 22.05.2022 12:36

MarineTraffic

Live Map Explore Community Solutions

HILLE OLDENDORFF
Bulk Carrier

MARIA [GR]
Destination: ECESM

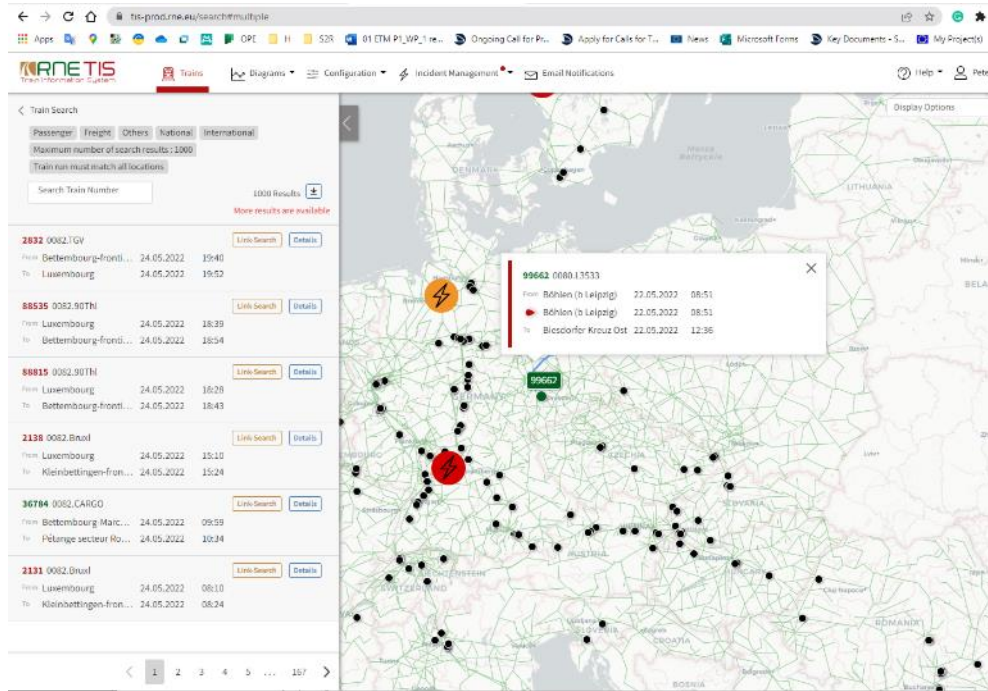
NL RTM
ATA: 2022-04-23 21:31

NORFOLK ANCH [US]
ATA: 2022-05-07 04:57

Status: At Anchor Speed/Course: 0kn / 0° Draught: 9.7m

Received: 6 minutes ago (AIS Source: 1819 Compass MarMa)

RNE TIS as the only pan-European railway platform with train running information



- » combines data from the national information systems of IMs and some RUs
- » works on the unified TAF/TAP TSI platform
- » provides data to national dispatch systems
- » creates international routes from national data
- » provides ETA
- » support for managing train traffic in accidents
- » Datawarehouse of train runs on the European network

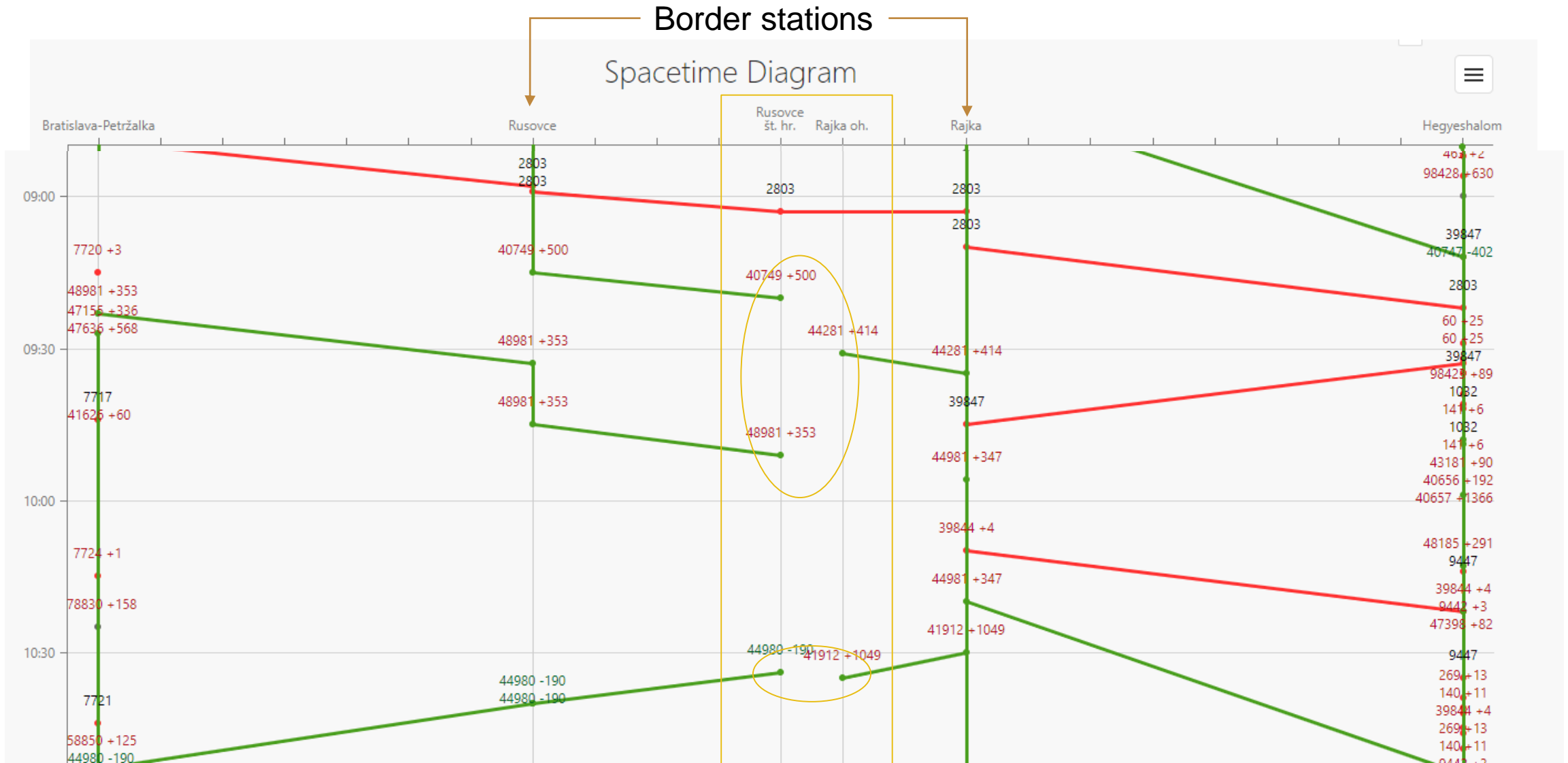


Where is my train located?

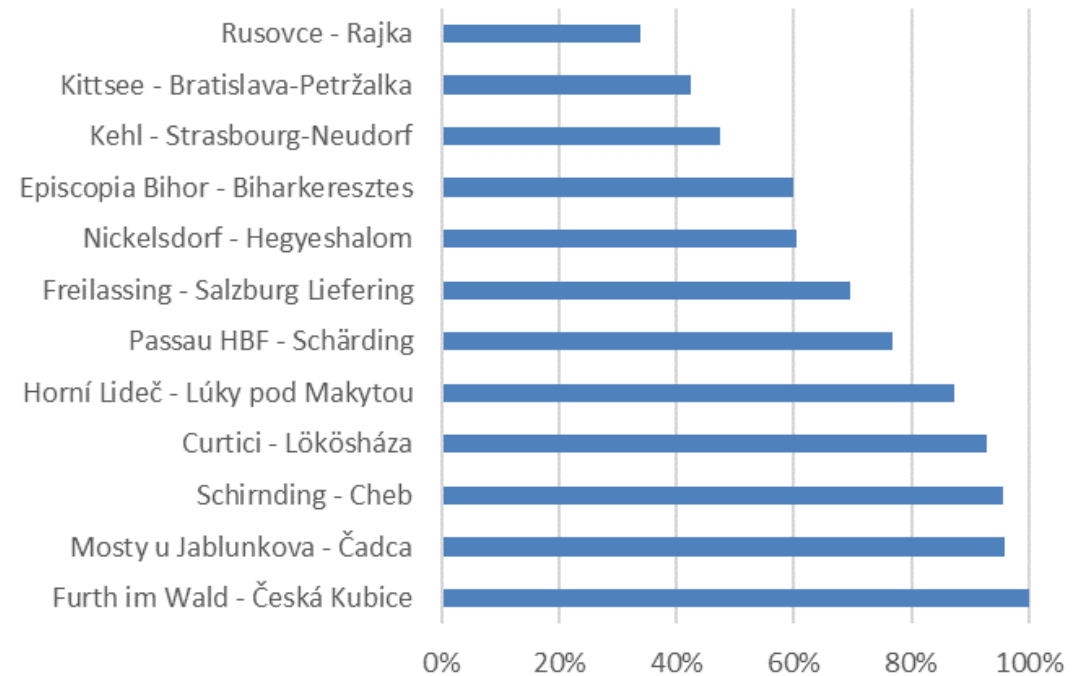
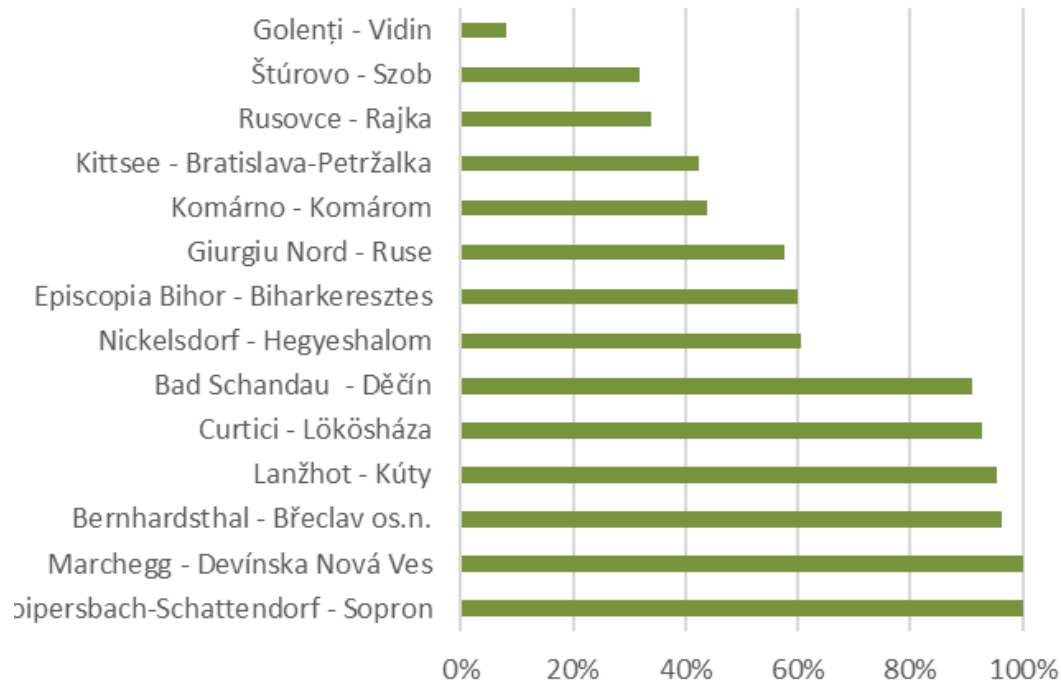
RNETIS
Train Information System

Ask the national administrator for free web access

Trains at borders change train numbers and remain national



We still run an international train as several national one



Share of linked trains at borders Feb 2023

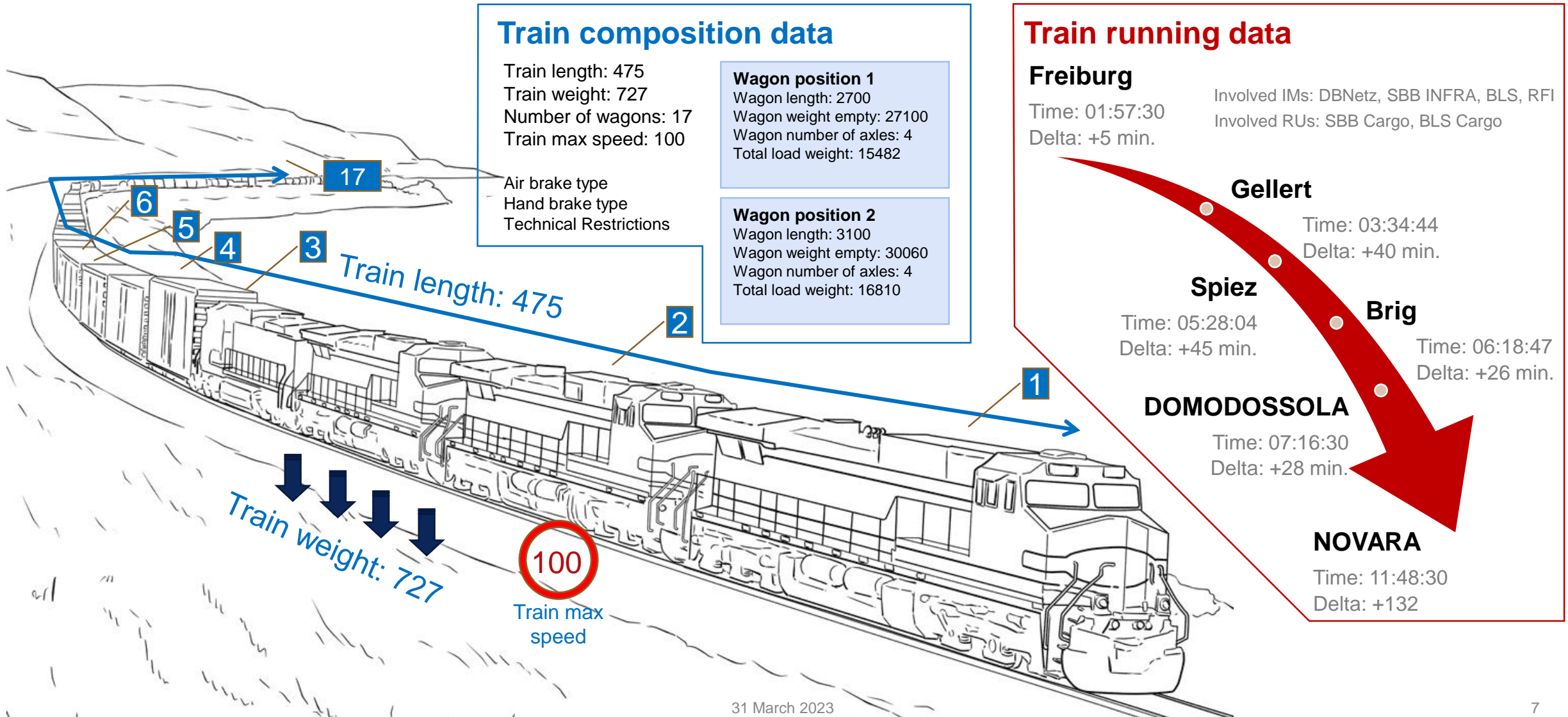
TIS Data Exchange Within the Railway Sector



Exchanged TAF TAP /TSI Messages	Rules
Path Details	1-2 days before the Departure
Path Section Notification	Before the Departure / Real Time
Train Running Information	Real time
Train Running Forecast	Real time
Train Running Interruption	Real time
Train Delay Cause	Real time
Train Composition	Before the Departure / Real Time
Wagon Performance Message	After arrival at final destination



Train Run / Composition



Train Run / Composition is presented in TIS for subjects involved in the train run

International Train Number
401763
National Train Numbers
401763

Actual Location
Lutterbach (Haut-Rhin) - Bât Voyageurs
30.03.2023 06:40 -204 min

From
Thann - Bât Voyageurs 30.03.2023 09:42
To
Mulhouse-Nord - FSC Réception 30.03.2023 10:08

Planned Distance
16,21 km
Actual Distance
13,27 km

Train Type
National Freight
Last Update
30.03.2023 06:48

Data Inconsistencies

Name	IM	Location
No Data Found		

Train Running Interruption(s)
No Data Found

Path Section Notifications
No Data Found

Train Compositions

Infrastructure Manager Start	OTN	PLC Start	Location Start	Infrastructure Manager E...	PLC End	Location End	IM	RU	Train Type
0087 SNCF Réseau SA	401763	935	Thann - Bât Voyageurs	0087 SNCF Réseau SA	872	Mulhouse-Nord - FSC Réception	0087 SNCF Réseau SA	SAS Fret SNCF	Freight

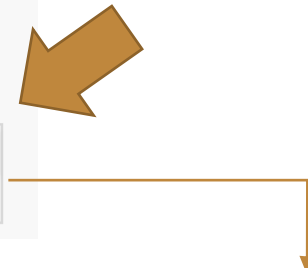
Train composition data

Train length: 475
Train weight: 727
Number of wagons: 17
Train max speed: 100

Air brake type
Hand brake type
Technical Restrictions

Wagon position 1
Wagon length: 2700
Wagon weight empty: 27100
Wagon number of axles: 4
Total load weight: 15482

Wagon position 2
Wagon length: 3100
Wagon weight empty: 30060
Wagon number of axles: 4
Total load weight: 16810



Train Compositions

Train Weight	Train Length	Train Max Speed	Train Max Axle Weight	Brake Type	Brake Weight	Vehicles	Axles	Exceptional Gauging ↑	Dangerous Goods	Associated OTNs	Loco Number
156	28	100		Freight	59	2	8	No	Allowed		928700601208

TIS uses train composition information as reliable info to link trains with different train numbers but the same cargo.

Train Number **40000** Infrastructure A



Train Number **45000** Infrastructure B

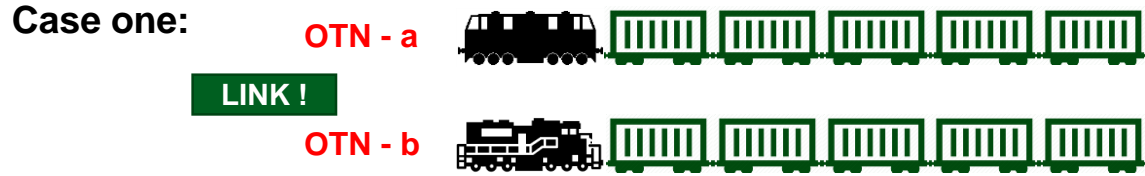


**Border
Station**

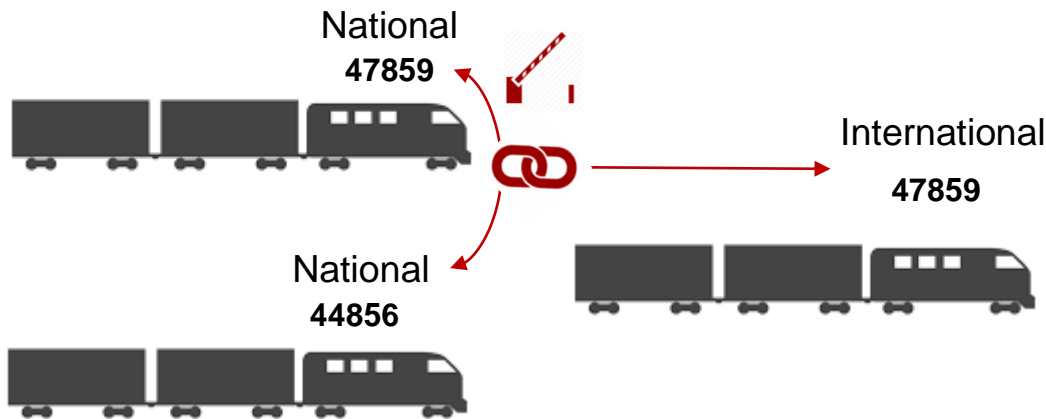
**hash value
(token)**

A hash value (token) will be created for every train. If the token is identical at the same border and on the same day, the train will be linked automatically.

Different Train Number Linking based on Train Composition



80 % Fitting: wagon number – total load

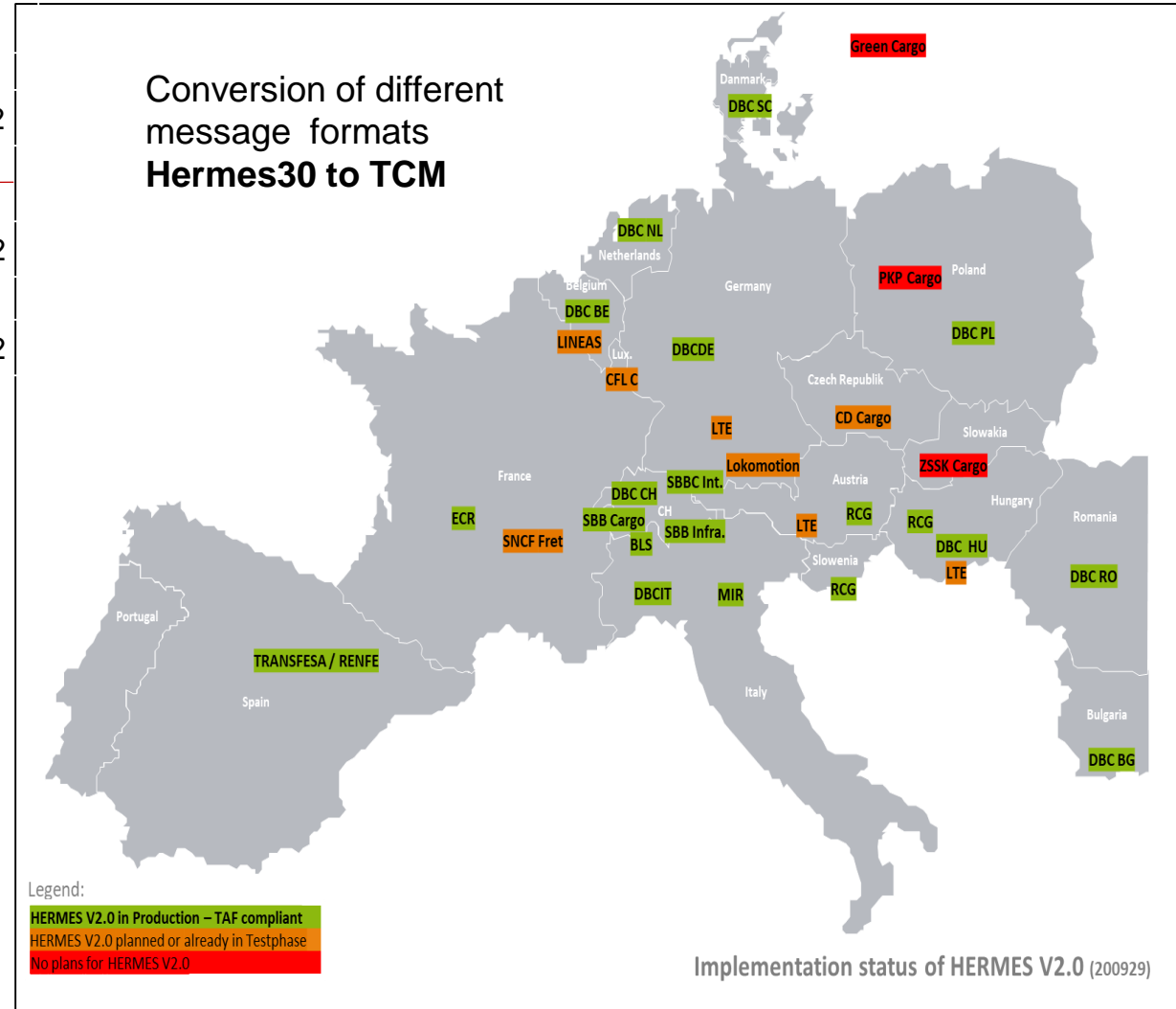


IM 1

IM 2

IM 2

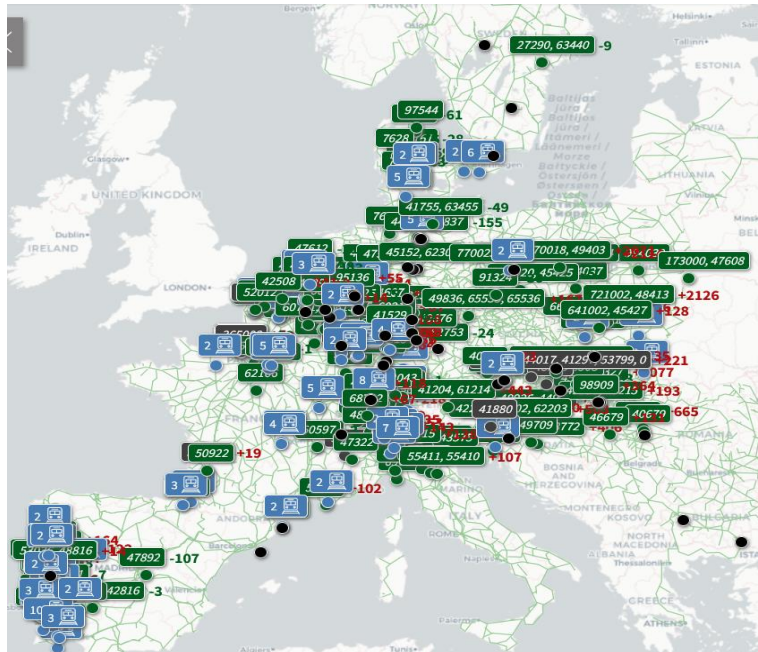
IM 2



Overview of participating companies TCM/Hermes30

TCMs - daily

- for around 700 trains
- on 1200 segments



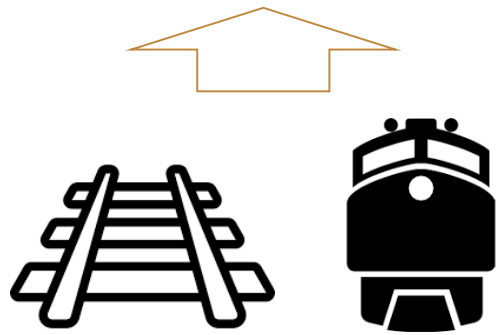
RU	Message Format	Status
DB Cargo DE	Hermes30	active
DB Cargo FR	TCM	active
DB Cargo DE for Bremen Port	Hermes30/TCM	active
DB Cargo NL, PL	TCM	active
LTE AT, DE, PL, NL, HU	TCM	active
Lineas FR, BE, DE	TCM	active
SBB Cargo Int CH, DE, NL	TCM	active
BLS Cargo IT, CH, DE, NL	Hermes	active
SNCF FRET	TCM	active
RailCargo Austria AT, IT, SZ, HU	TCM	active

The provision of TCM messages and train linking is beneficial for the whole railway sector and logistic chain



Train linking in TIS

- » Manually
- » TIS algorithm
- » **TCM**
 - » **IMs**
 - » **RUs**



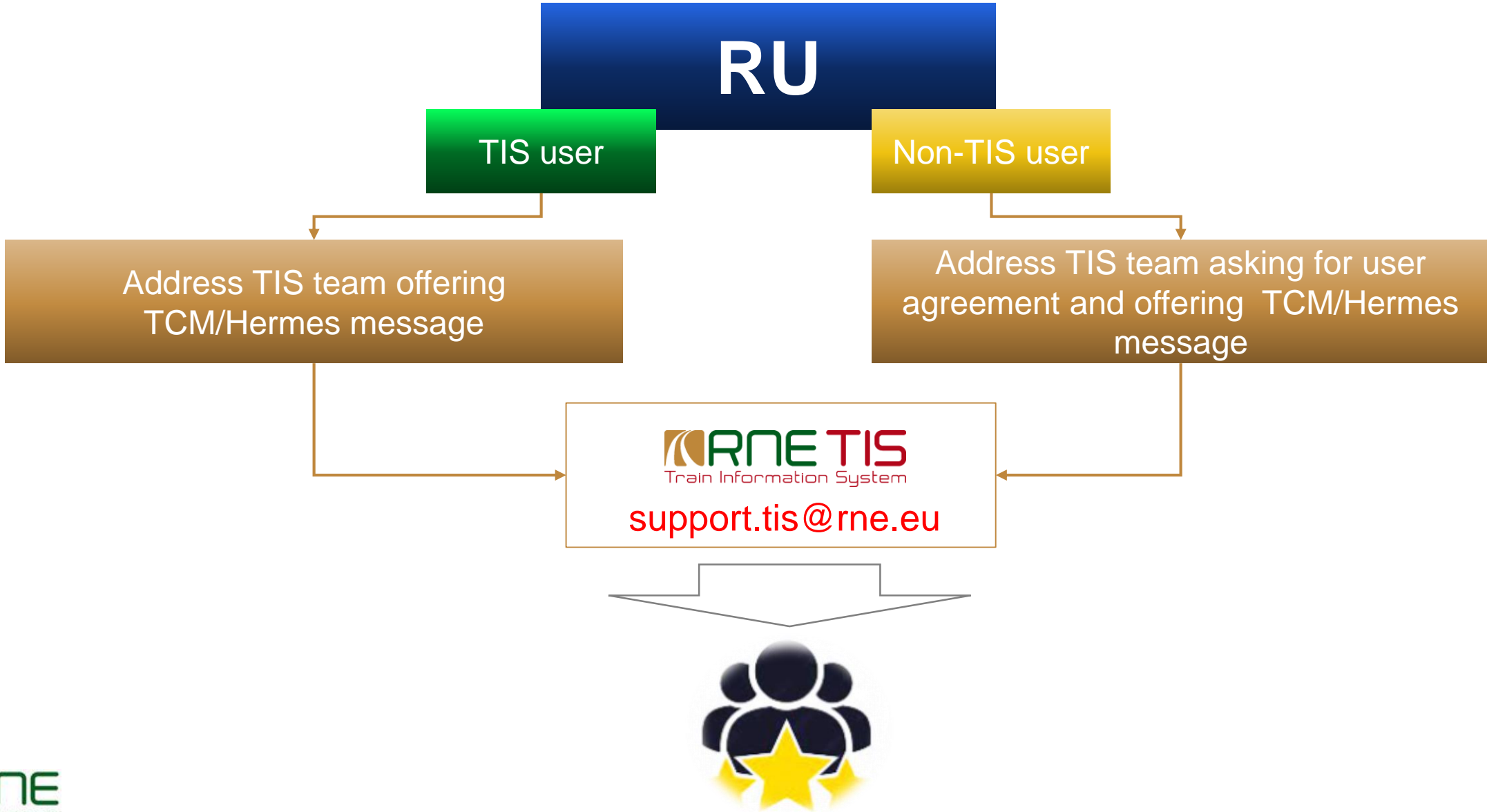
- » un hiding international trains
- » Introducing reality
- » Providing additional information to the process



Benefits

- » Complete international train running data
- » Information on a train run and its composition from origin to destination for railway staff and customers
- » Information on train handover and interchange
- » More reliable performance reporting of international traffic
- » Enhanced reporting possibilities
- » Higher railway credibility

Required actions from the RU side are simple and easy



**Thank you for your
attention**