

Estimated Time of Arrival (ETA)



Co-financed by the European Union
Connecting Europe Facility

ETA – Project Overview

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- » Common Milestones and next Events



Common Sector Statement

Common Sector Statement states:



In order to improve operational efficiency of the logistics chain, the sector representatives commit themselves to implementing the TAF TSI functions according to the Masterplan and working toward a common ICT architecture wherever possible. IMs will integrate **international traffic management information (e.g. via TIS)** with national systems.



Under the protection of confidentiality clauses, **IMs and RUs agree to make information on estimated time of arrival available (for handover points and final destination) to their contract partners, including terminals and intermodal operators** for optimizing the use of resources such as rolling stock and terminal capacity, and to provide freight forwarders and shippers with up-to-date information about the status of their freight and an estimated time of arrival.



SSG Priority project 6

ETA and Train Tracking Information

What is the current status?

No guaranteed access to information

- The partners involved in a train run do not have guaranteed access to train (wagon) tracking and forecast information
- Contractual agreement between all involved partners are required (high administrative burden, legal uncertainty)
- No standardised technical interfaces between all partners

Low quality of information

- Forecast information does not involve all partners
- Forecast information is often just based on a time-shifting
- Quality of data and calculation algorithm is poor
- Forecast information from previous partner is not considered by the next IM
- Some international trains are not linked always (estimated above 25%)

Project aims



1. Enable sharing of tracking information between all partners involved in a single train run, via TIS Train Information System (“Where is the train?”)
2. Offer estimated time of arrival data to all partners involved in a single train run, via TIS Train Information System (“When will the train arrive?”)
3. Achieve high quality output: ETA communicated to the following partner of the train run is reliable
 1. All partners calculate their own part of the ETA
 2. TIS shall be the common platform and measuring the quality of the ETA at defined points and directions
4. Step-by step introduction with volunteering RFCs, IMs, RUs, terminals, contractors for defined connections, and subsequent spreading to the network
5. Speed of action: first milestones by 2017

Organisational set-up – Overview



ETA Task Force (Coordination)

CER (Maier), ERFA (Tonndorf), KNV (Toet), RFCs (de Mol, Sellnick, Geubelle), RNE (Reisinger), UIRR (Schultze), DG Move, Ministries

«ELETA» Project (CEF application)

Project coordinator: Ad Toet

Project partners: Cemat, Hupac, IFB, Kombiverkehr, RCA, UIRR,

Involved RUs: Lineas, BLS Cargo, DB Cargo, RCA, Mercitalia, SBB Cargo int., SNCF FRET

Involved terminals: ca. 20

Technical partner: RNE

Advisory Board

to assist the project partners
RUs, terminals, IMs

RNE Project (CEF application)

Project coordinator: RNE Harald Reisinger

Project partners: IMs, Members of the TIS Advisory Board

System provider for TIS

- Including Terminals to TIS
- Measuring the quality of ETA
- Using TAF TSI Standards like
 - Reference Files
 - Defined Messages
 - Common Interface

Legal Unit

ERA, DG Move (Buy, Padoy),
Ministries (Groot, Haller, Ilik, Nagel,
Swartenbroekx)

Short Term: TIS Advisor Board
Long Term: to be defined

RFC1 project «ETA Terminal/Shunting RUs»

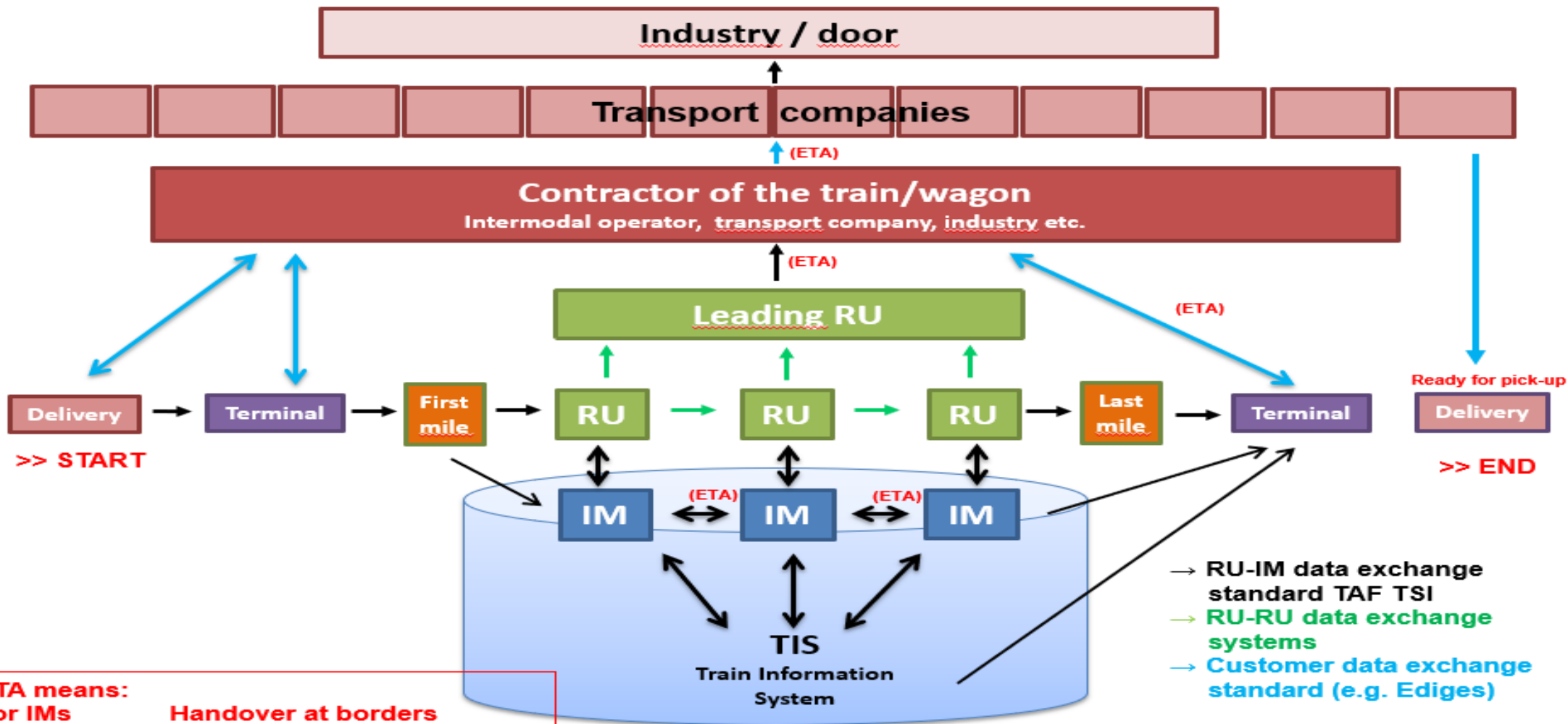
Duisport, others

Situation TODAY



1. IMs provide ETA data based on simple time shifting.
2. RUs do not feed data into TIS.
3. Data sharing is fragmented and non-standardised.
4. Some RUs do not disclose tracking data with other RUs and the contractor of the train.
5. The contractors of the train/wagon do not have access to TIS. Only some terminals have (based on voluntary contracts).
6. TAF-TSI defines data exchange between RUs, IMs and wagon keepers. Terminals and Contractors of the train are excluded.
7. TIS uses a reference number linked to a path; link to train gets lost in case of rescheduling.
Project “Train Identifier”: 2021

Situation TODAY



ETA means:
 For IMs Handover at borders
 For RUs Handover at delivery point
 For terminal Arrival of train
 For shippers Ready for pick-up

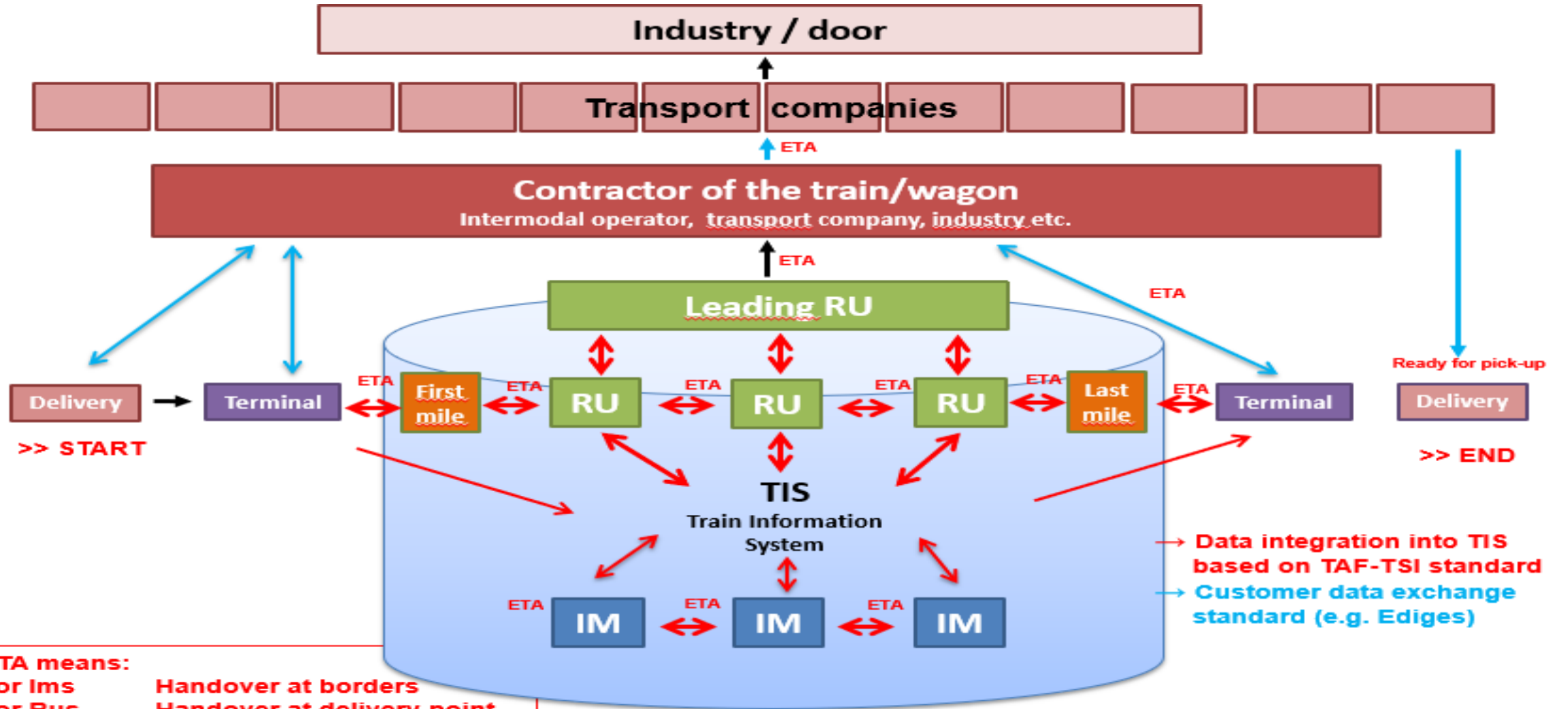
→ RU-IM data exchange standard TAF TSI
 → RU-RU data exchange systems
 → Customer data exchange standard (e.g. Edges)

Situation TOMORROW



1. All partners involved in a train run have access to tracking and ETA data.
2. All involved partners share train tracking data and ETA data.
3. All partners involved in a train run feed their ETAs into TIS.
4. All partners plan ahead and share their ETA with the following partners, who can plan ahead as well.
5. The leading RU communicates tracking and ETA data to the Contractor of the train.
6. The Contractor exchanges information with the terminal and communicates “ready for pick-up” to the transport company/industry

Situation TOMORROW








ETA means:
 For Ims Handover at borders
 For Rus Handover at delivery point
 For terminal Arrival of train
 For logistics Ready for pick-up

→ Data integration into TIS based on TAF-TSI standard
 → Customer data exchange standard (e.g. Edges)

First-Last Mile: Messages and Facilities Terminal Trip



TIS - Messages along the whole Train Journey

First Mile Traction Type (Shunting Trip or Train Loco)		Train Journey		Last Mile Traction Type (Train/Shunting Trip or Train Momentum Energy)	
Terminal	Terminal Trip	Network IM		Terminal Trip	Terminal
					
Loading completed	Forecast Running advice	Path Details – Forecast - Running advice – Delay Codes – Path Section Modification - Interruption		Forecast Running advice	Ready for Unloading

ELETA 

1. to demonstrate the practical value of streamlining exchange of ETA data on the basis of existing intermodal freight trains.
2. to encourage and facilitate the work done by the sector, member states and the European institutions for eliminating legal, operational and technical obstacles in the electronic exchange of ETA information.

How ELETA links to the SSG ETA Priority project



6. Following Estimated Time Arrival implementation for all stakeholders, including estimated time of handover, implementation of telematics applications for freight service (TAF-TSI) & information of Train Information System (TIS) included in national systems.

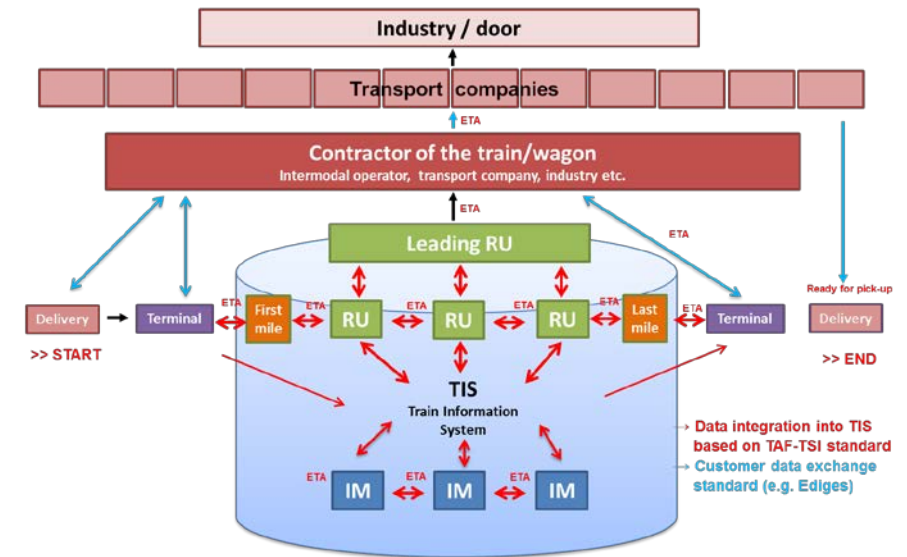
4-5 years

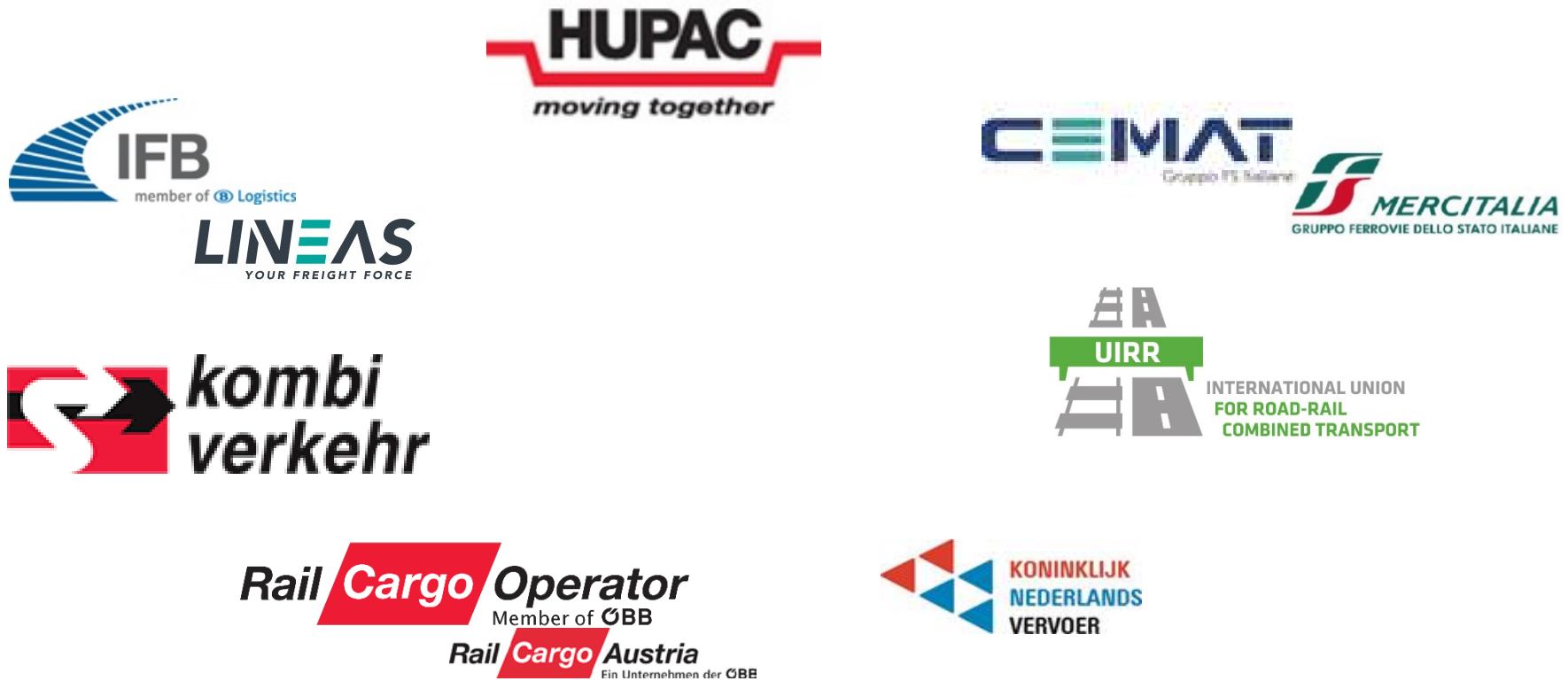
Sharing of train tracking and ETA information **ELETA**

2 years

ELETA approach

- » Intermodal operators in leading role; IM's, RU's and RNE actively involved
- » Selection of already running intermodal shuttle trains
- » No new big new database, but interfaces to already existing TAF-TSI/TIS information

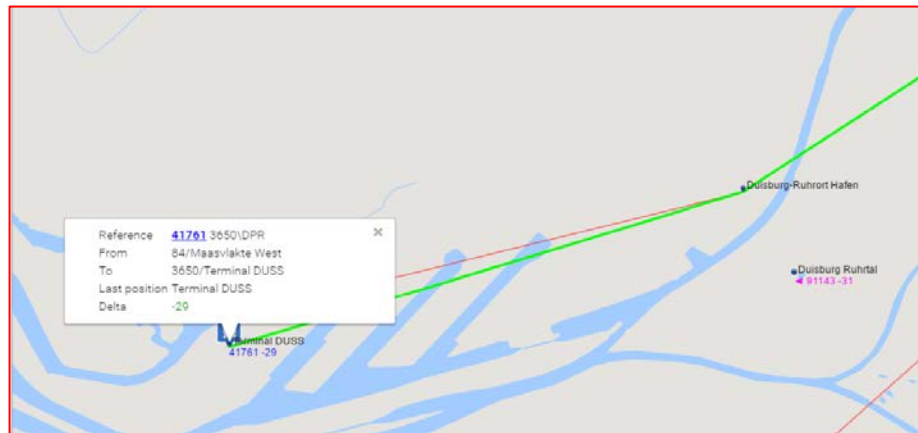




N°	Title	Start date	End Date
1	Survey and system analysis of current situation in tracking data exchange in Road-Rail Combined Transport	01-09-2017	28-02-2018
2	Survey of legal conditions in tracking data exchange	01-10-2017	28-02-2018
3	Inventory of stakeholders' requirements for an ETA eco-system	01-09-2017	31-03-2018
4	Assessment of ICT systems and standards to be linked	01-09-2017	31-03-2018
5	Elaboration of functional requirements and architecture for the ETA ecosystem	01-02-2018	30-09-2018
6	Conceptual design of smart ETA algorithms	01-02-2018	30-09-2018
7	Programming and testing of software applications and user interfaces	01-09-2018	30-06-2019
8	Impact assessment of the ETA ecosystem	01-04-2019	31-07-2019
9	Project Management and Communication	01-09-2017	31-08-2019

- 7 Feb. 2017: ELETA and RNE submitted individual project proposals for funding to INEA (CEF Call 2016) – Supported by the ETA project, TAF TSI SC and the ministries included in the legal unit.
- 7 March 2017: Brussels – General Assembly of Project Applicants for ELETA
- 4 April 2017: Vienna - Meeting ELETA/RNE on process definition
- Definition of cooperation with RNE on ETA actions
 - Position of ELETA stakeholders (RU's) as regards to exchange of TIS-data
 - Linkage through RNE with TAG-RFC 1 action Last mile data exchange
- 30 April 2017: RNE GA Kick-Off Meeting
- 7 Jun 2017: München: process definition – project stakeholders
- 26 June 2017: Busto/Milan: Southern terminals – terminal management
- 28 June 2017: The Hague: Northern terminals – terminal management
- 11 Sept. 2017: ELETA Kick-Off GA Meeting, Brussels
- 6 Oct. 2017: Meeting of the ETA task force in Brussels
- 6 Dec. 2017: ELETA GA Meeting, Vienna
- RNE GA Meeting, Vienna - TIS User agreement for terminals

- » *Permissions/authorisation for sharing data. (RNE framework agreement)*
- » *Intermodal operators and some terminals not linked to TIS.*
- » *Change of train numbers at borders (there is no unique train numbering).*
- » *Terminals and their (common) user interfaces (the sector has invested in costly work arounds)*
- » *The whole train journey must be in TIS (not only the IM network/network entry/exit point)*



First-Last Mile: User Interface – Terminal Trip

Train Search Options

Timeframe 09/03/2017 18:20:00 +01:00
+/- 3 hours

Message Creation Steps

1 Direction First Mile Last Mile

2 IM Point 0080\12617\EDRH\Duisburg- ▾

3 Train 41488 from Gađki ▾

4 Terminal Point 3650\80004\DUSS\Terminal I ▾

5 Estimated Time of Arrival (HH:mm) 12:45

Delta (e.g. +16) 25

2017 events / activities

- » Sector Statement Group 24th October 2017
- » RU Dialogue 26th October 2017
- » SERAC WG RFC 9th November 2017
- » TEN-T Digital Transport Days 9th November 2017
- » Network executive Boards 10th November 2017
- » ELETA GA Meeting 6th December 2017
- » ETA Task Force Meeting 6th December 2017
- » Rail Freight Day 7th December 2017
- » Bilateral meetings with RUs, Terminals, customers October 2017 – December 2017

2018 events / activities

- » Meeting with INEA (kick-off) 10th January 2018
- » Meeting with ERA 22nd January 2018
- » ERA Task Force Intermodal Transport 20th February 2018
- » ETA Corridor 1 workshop 22nd February 2018
- » ELETA External Expert Advisory Board 22nd February 2018
- » ELETA GA Meeting March 2018

Thank you for your attention



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