



Rail Freight Corridor  
North Sea – Baltic

# **Estimated Time of Arrival (ETA)**

## **RFC North Sea – Baltic**

### **1 March 2018, Berlin**



**Co-financed by the European Union**  
Connecting Europe Facility

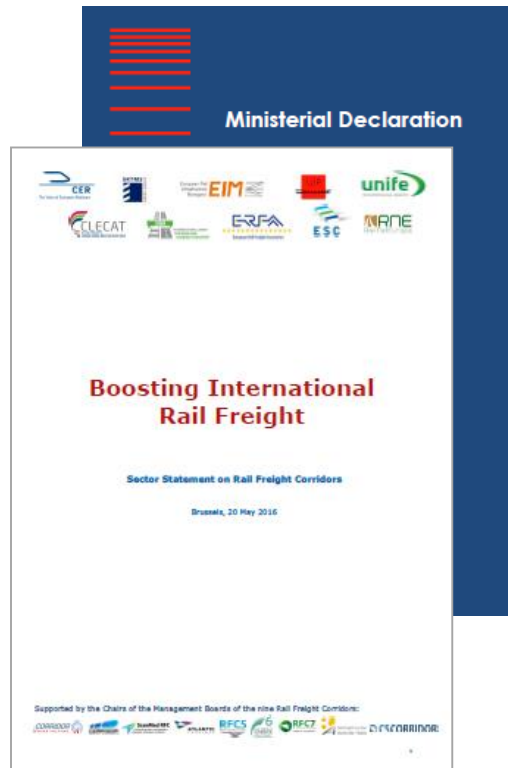
# ETA – Project Overview

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# 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**

# Vienna RFD Dec.2016: How the CEF ELETA project links to the RFC programme



## Opening RFC Strategy Sessions Shared priorities / Operations



5. Improving harmonization of processes at the borders, with support from executive boards
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.



## What is the current status?

### Limited 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: Reliable ETA communicated to the following partner of the train run
  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



# 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»

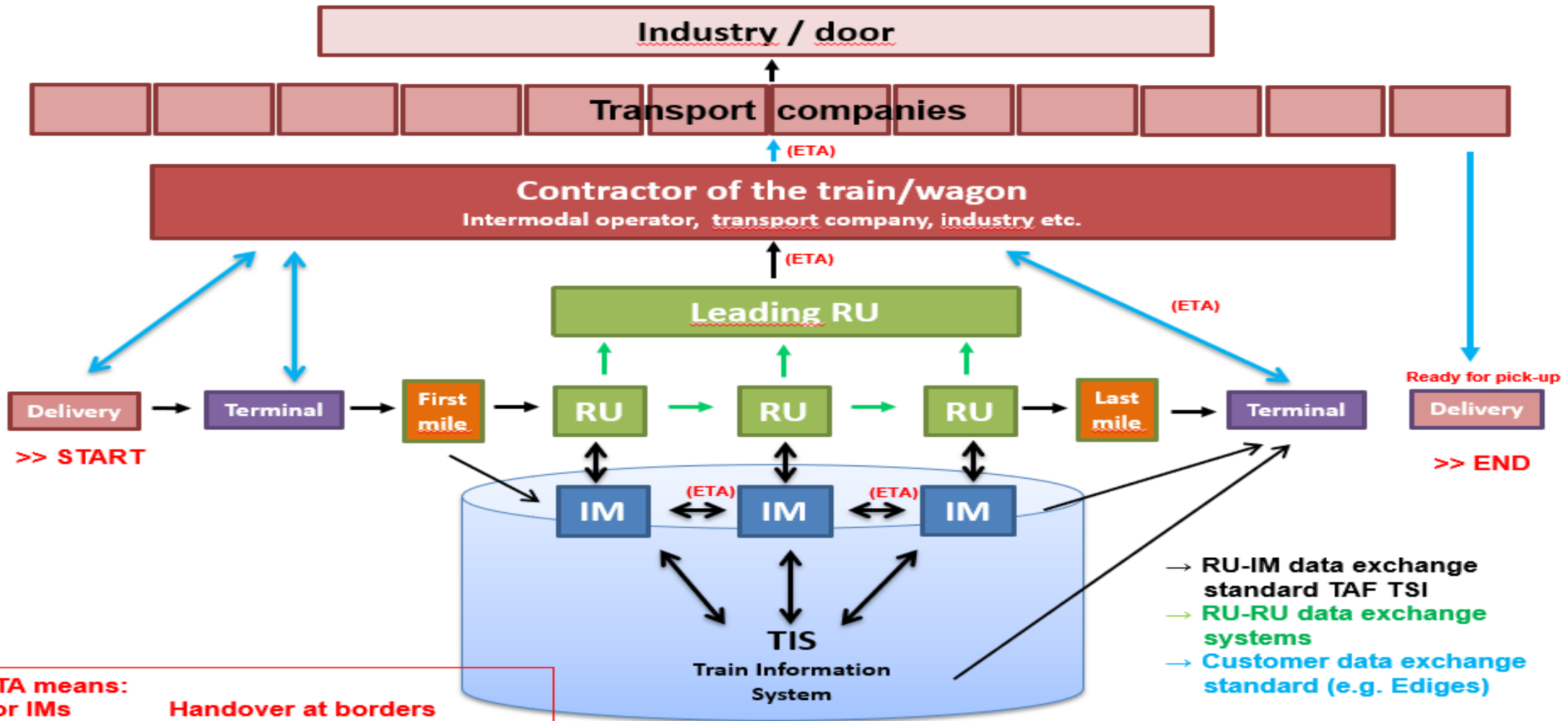
Duisport, others

# 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

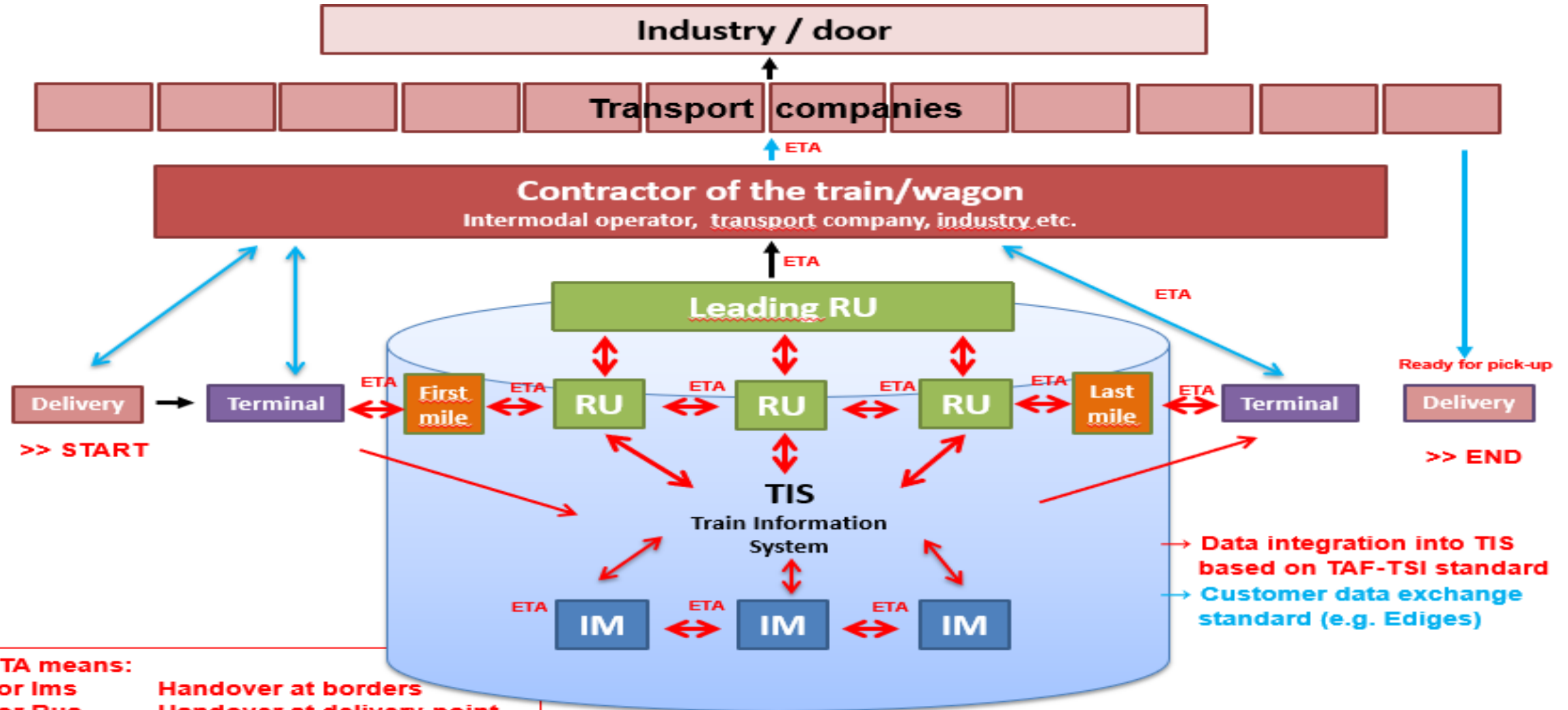


# Situation TOMORROW



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



# First-Last Mile: Messages and Facilities Terminal Trip



## TIS - Messages along the whole Train Journey

| First Mile Traction Type<br>(Shunting Trip or Train Loco)                          |  | Train Journey  | Last Mile Traction Type<br>(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<br>– Delay Codes – Path Section Modification - Interruption | Forecast Running advice  | Ready for Unloading  |



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

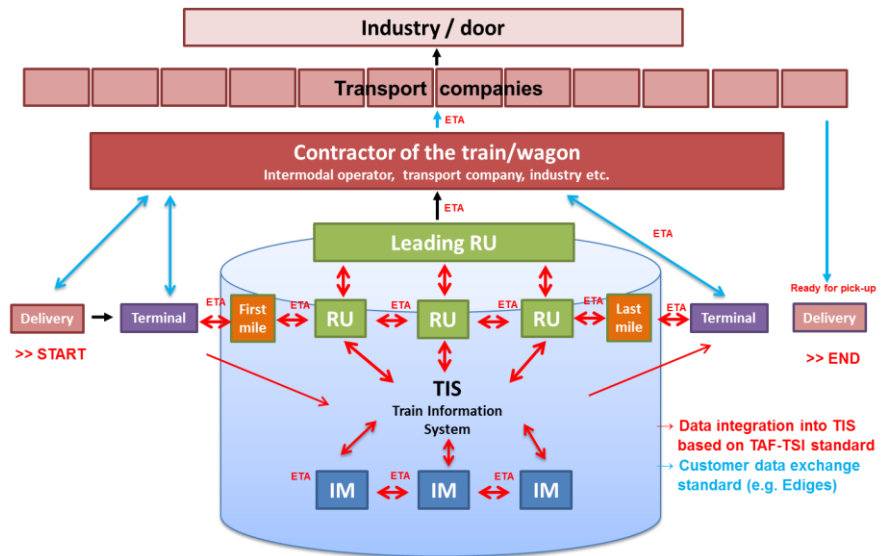


1. to demonstrate the practical value of streamlining exchange of ETA data on the basis of existing intermodal freight trains.
2. to encourage and facilitate the work done by the sector, member states and the European institutions for eliminating legal, operational and technical obstacles in the electronic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

## 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



## Core tasks



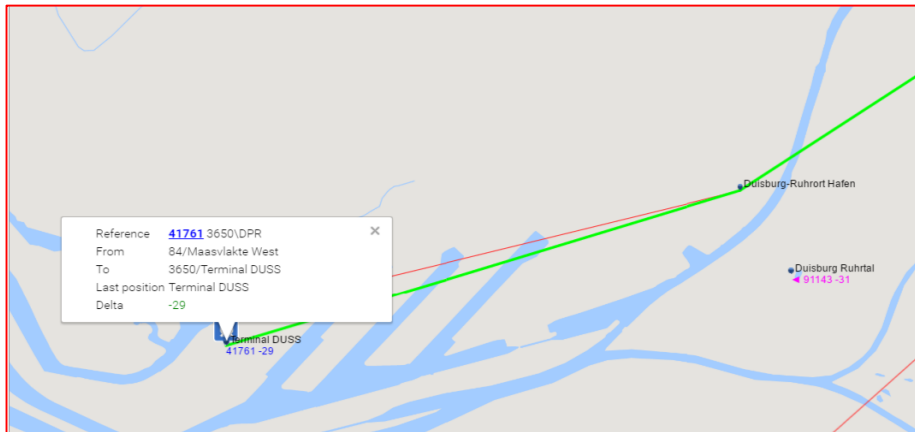
1. Establishing the Electronic data exchange link between all stakeholders in the chosen intermodal logistic chains.
2. Feeding into the link valid data on Estimated Time of Arrival.



| 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, 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 Gdski

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

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

Delta (e.g. +16): 25

## 2018 events / activities

- |  |                                |
|--|--------------------------------|
| » Meeting with INEA (kick-off)         | 10 <sup>th</sup> January 2018  |
| » Meeting with ERA                     | 22 <sup>nd</sup> January 2018  |
| » ERA Task Force Intermodal Transport  | 20 <sup>th</sup> February 2018 |
| » ETA Corridor 1 workshop              | 22 <sup>nd</sup> February 2018 |
| » ELETA External Expert Advisory Board | 22 <sup>nd</sup> February 2018 |
| » ELETA GA Meeting                     | 15 <sup>th</sup> March 2018    |



Thank you for your attention



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