EDICT Final Conference

Welcome and introduction

The Programme

Timing	Topic & Speaker
09:30 – 10:00	Registration & coffee
10:00 – 10:05	Welcome and introduction by Ralf-Charley Schultze, Director General UIRR
10:05 – 10:15	Introduction to EDICT by Eric Feyen Project coordinator
10:15 – 10:30	Presentation by Yann Seimandi, Project Officer DG MOVE (C.4)
10:30 – 10:45	Presentation of the KV 4.0 Data Hub by Aldo Puglisi, Managing Director DXI
10:45 – 11:05	Presentation of the terminal integration (TAF TSI compliance) by Eric Feyen and testimonies of the terminal partners
11:05 – 11:20	The elaboration of a collaborative Quality Management System (cQMS) for Combined Transport by Roland Klüber (technical coordinator of EDICT)
11:20 – 11:35	The redesign of the customer-oriented platform CESAR by Aldo Croci, Chairman of the Board CIS + testimonies of two customers
11:35 – 11:50	The importance of reference files for the intermodal sector by Rémi Penet, Junior Project officer & Mateusz Nowak, Digital Project Officer
11:50 – 12:00	Conclusions by Ralf-Charley Schultze, Director General UIRR
12:00 – 13:30	Walking lunch buffet

Introduction to the project

by Eric Feyen – Technical Director UIRR

EDICT: **the digital context**

ELETA project
(2017-2019)

Electronic exchange of ETAs computed with smart artificial intelligence from TIS/RNE data

Digital Train 1.0
(2020-2021)

- Integrating Train Composition Messsage in TIS (Compliance Hermes 30 v2)
- Testing accuracy of ELETA ETAs and scaling up in TIS
- Introduction of data exchange with terminals
- Feasibility study Rail Collaborative Decision Making

Digital Train 2.0
(2021-2022)

- Continuation of work on integrating Train Composition Message in TIS
- Feasibility study on performance (quality) management system based on TIS train running data (Q-ELETA)
- Preparatory work on Timetable Redesign (TTR)

EDICT

Enhanced Data Interoperability for Combined Transport Stakeholders

EDICT: **fact sheet**

Name: (EDICT)	Enhanced Data Interoperability for Combined Transport stakeholders
EU program:	CEF with a 50% EU-funding
Duration:	30 months (1 September 2022 – February 2025)
Budget:	3.1 million €
Consortium:	9 project partners - UIRR as coordinator
Structure:	4 work packages
Support:	External Advisory Board

EDICT: **the key objectives**

Integration of terminals in rail sector data exchange

Combined transport terminals exchanging messages (on train status in terminals and movements of trains between terminals and the public rail network) to meet the current TAF TSI requirements

Improvement of the production process and punctuality (cQMS)

Stakeholders who collaborate to produce a freight train will use a collaborative tool for monitoring and improving the punctuality of the transports.

Data exchange with stakeholders and their customers

Data exchange with identified eligible stakeholders takes place in an efficient manner whereby these stakeholders are being identified automatically and whereby relevant information is passed on to customers of stakeholders such as LSPs and shippers through the upgraded system CESAR and through the KV4.0 data hub

EDICT:

improving data interoperability & sharing in Combined Transport

EDICT Final Conference

11 February 2025

TSI Telematics

by Yann Seimandi
Project Officer - DG MOVE

Co-funded by
the European Union

TSI relating to the subsystem telematics applications

EDICT Final conference

12 February 2025

Co-funded by the European Union

EDICT

Co-funded by the European Union

Connecting Europe Facility (CEF)
Project 21-EU-TG-EDICT

cinea.ec.europa

CINEA - European Climate, Infrastructure and Environment Executive Agency

CINEATube

CEF Support to Rail Interoperability

The last decade (2014-2024, CEF1 and CEF2) CINEA supported

34 projects* within the topics:

- Rail Interoperability and Telematics applications
- New Technologies and Innovation
- Removing interoperability barriers for combined transport modes (rail, road, maritime)

Beneficiaries: Major railway sector stakeholders from all Member States

Total indicative CEF Funding: up to **225,500,000 €****

*closed and on-going
**subject to conclusion of final payment procedures

EDICT project in a nutshell

Grant Agreement with CINEA includes

4 work packages covering

- Integration of terminals in rail sector data-exchange
- Harmonized Quality Management System for the monitoring of regular combined transport (CT) trains in Europe
- Enhanced combined transport (CT) data exchange with stakeholders and their customers
- General Project management, coordination and dissemination activities

CEF Funding support of a maximum Grant Amount 1,563,000 €

draft implementing Regulation on TSI telematics for interoperability of data sharing in rail transport

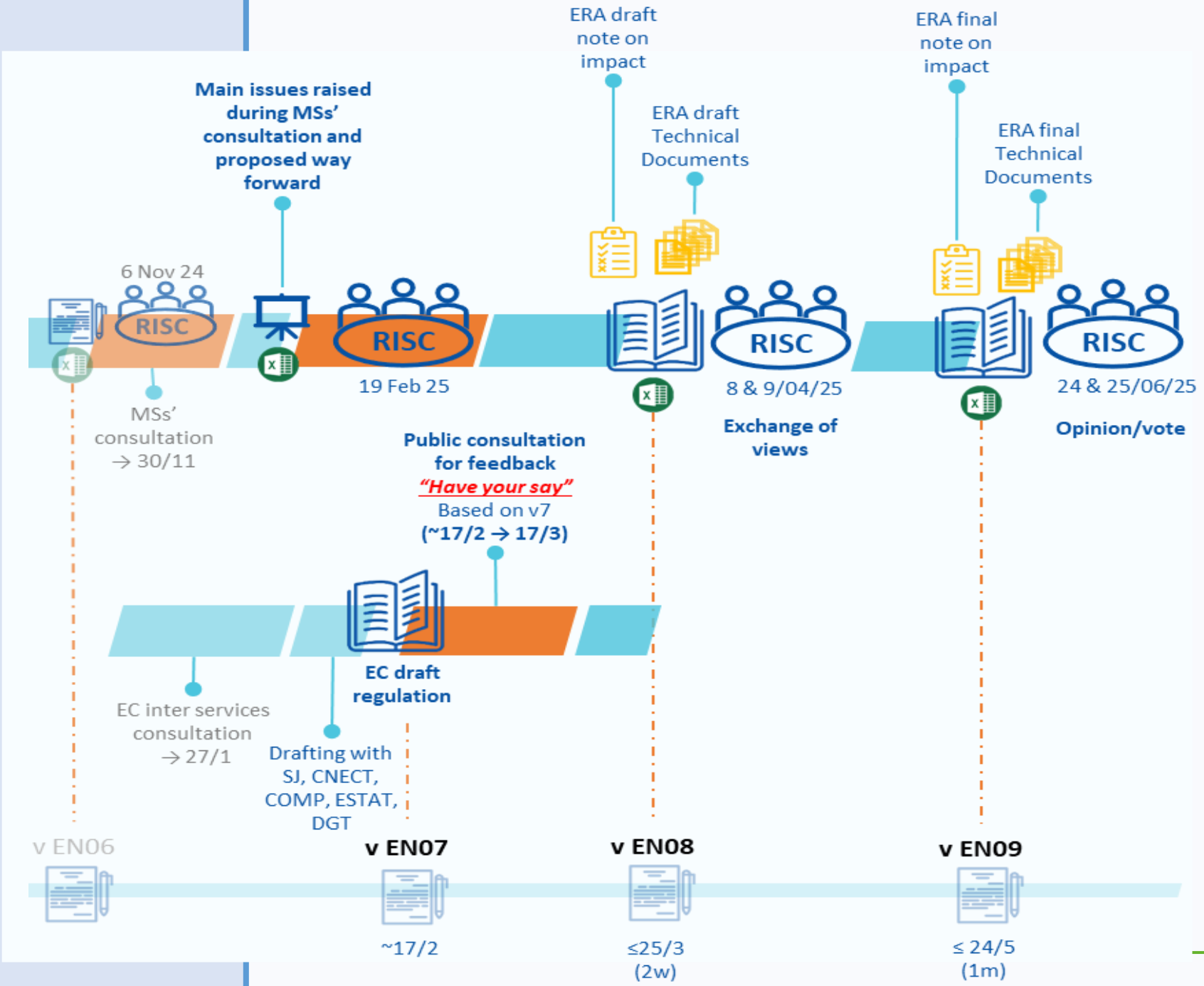
Subscribe on '*Have your say*' to receive notification about the public consultation:

Rail interoperability - technical specifications for the 'telematics applications' subsystem.

Updated timeline

Subscribe on ‘Have your say’ to receive notification about the public consultation:

Rail interoperability - technical specifications for the ‘telematics applications’ subsystem.



Specific objectives of the revision in relation to freight services

- Develop messages in relation to combined or multi-modal transport in order to facilitate logistics and operations
- Review of the link between databases and tools to improve the performance of rail freight
- Allow the Agency to assess the compliance of telematics applications

Objectives supported by the digitalisation

Shifting freight to rail

Reduced operation costs

Efficient planning of operations

Safe management of operations

Timely and quality data sharing

Current access to train traffic and train composition data

Enable potential customers to **make informed decisions** on their preferred transport options

Commercial sensitivity of data restricting access to transport partners

Lack of transparency of rail services

Lack of reliability of the information

Shift from rail

Insights derived from the project to revise the TAF TSI

Enhanced ecosystem of freight telematics stakeholders

- freight railway undertakings
- infrastructure managers
- **operators of rail service facilities**
  public or private entity responsible for managing one or more multimodal freight terminals of the TEN-T network* to allow the supply of one or more rail services**
- **intermodal transport operators**
  organise transport services connecting terminals for with more than one transport mode
- applicants for capacity allocation
- **freight customers** that issued the consignment note
- entities in charge of maintenance
- **third-party service providers that**
  - have an operational responsibility in the functioning of the rail system or in supporting the delivery of rail transport services
  - are contracted to monitor the movements of trains or the flow of goods
- holders of a transport contract relating to
  a specific train
  a specific type of rail transport service
- entities involved in the operation of telematics applications

*listed in Annex II to Regulation (EU) 2024/1679
**points 2 to 4 of Annex II to Directive 2012/34/EU

Horizontal rules for data sharing and access for use based on “Rotterdam principles”

conditional obligation of telematics stakeholders to share data and right to access and use data

condition related to the processes in scope

- have obligations on the basis of legal provisions or contractual agreements
- have an operational responsibility

Horizontal rules on terms and conditions for business-to-business data sharing

terms and conditions for business-to-business data sharing* required pursuant to Union law e.g. as pursuant to TSI Telematics

any fees and charges for

- data sharing and access to data
- the use of telematics applications as application programming interfaces (“*common interface*”) or web user interfaces
- the access for use to reference data

is to be

- reasonable and proportionate to the legitimate costs incurred for setting up, maintaining and using such telematics applications or reference data

*Article of 8 of Regulation (EU) 2023/2854 (Data Act) setting out horizontal rules

Access for use to train traffic data

In addition to horizontal rules

- voluntary peer-to-peer exchange of train traffic messages
- mandatory peer-to-peer exchange of messages relating to capacity allocation

obligation for each infrastructure manager and each operator of rail service facilities

to grant **public and free of charge access for use**

- via a publicly available a common Union web user interface
- under specified access conditions

to

- **working timetable** resulting from allocated paths
- **train traffic data** based on train traffic messages

Access for use to train composition data

In addition to horizontal rules

- mandatory peer-to-peer exchange of train composition messages
- from each railway undertaking to the infrastructure manager or the operator of rail facilities of the network of departure of the allocted path

obligation for each infrastructure manager and each operator of rail service facilities

to grant **public and free of charge access for use**

- via a publicly available a common Union web user interface
- under specified access conditions for non commercial use

to

- **train composition data** based on train composition messages

Possible restrictions

by Member States or infrastructure manager

- **for security measures** (e.g. military, dangerous goods, …)

by infrastructure manager

- upon request of a freight railway undertaking
- **where commercial or personal information should be protected**
- limited to:
  - the identification of that undertaking
  - the wagon characteristics that may indirectly enable the identification of the goods transported

Telematics applications
General principle

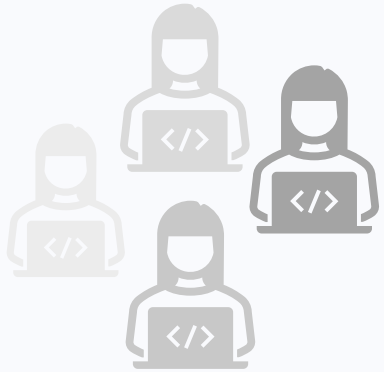
Each telematics stakeholder shall use

an **application programming interface ('API')**

OR

a **web user interface ('UI')** *provided by another telematics stakeholder*

API *("common interface")* for machine-to-machine data sharing



One or more may use a common API or a common web UI

web UI for human-to-machine data sharing

Each telematics stakeholders shall use

an **API**

One or more may use a common API

API *("common interface")*

AND

may provide a **web UI** *for use by other telematics stakeholders*

One or more may provide a common web UI

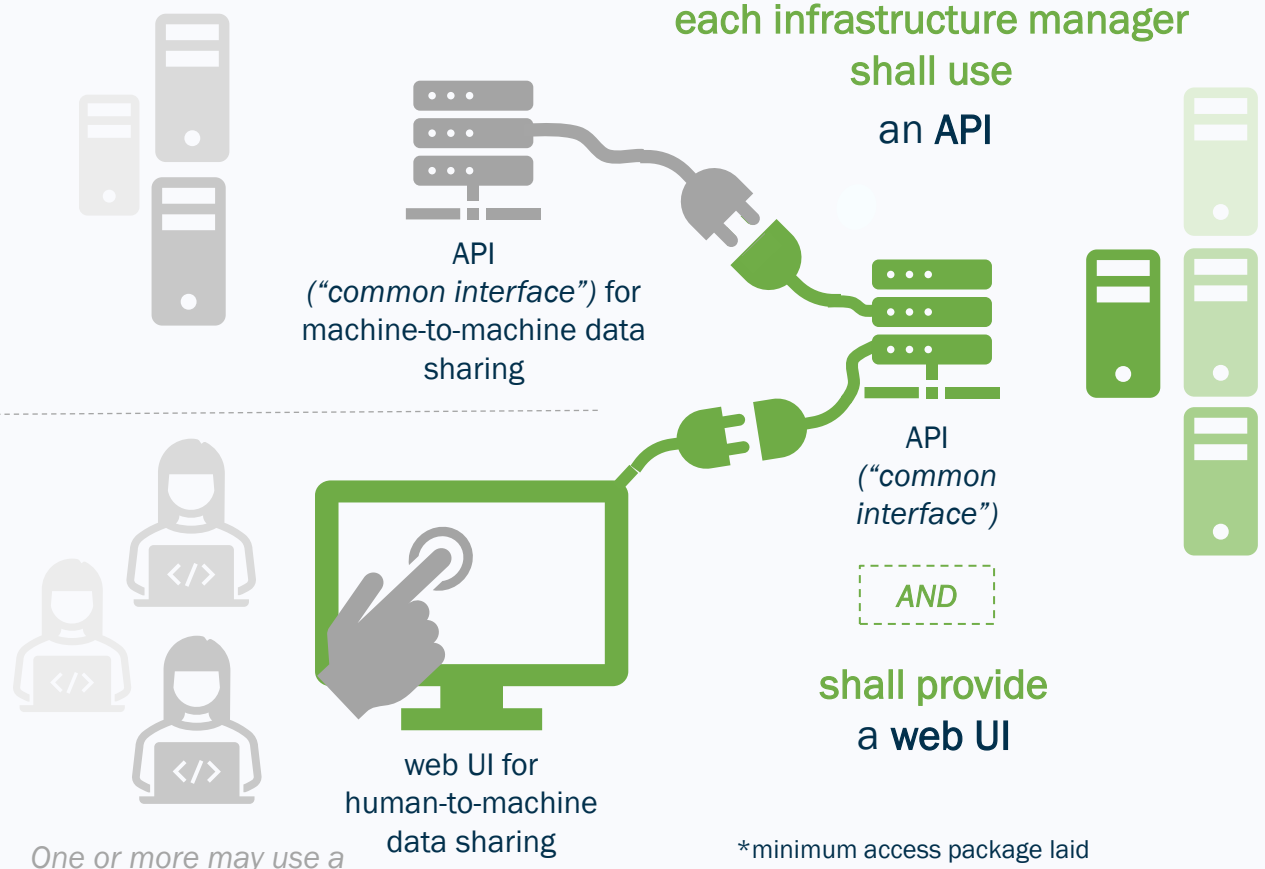
Telematics applications of infrastructure manager

Each telematics stakeholder shall use

an **application programming interface ('API')**

OR

a **web user interface ('UI')** *provided by another telematics stakeholder*



As part of the minimum access package* to its network, **each infrastructure manager shall use**

an **API**

API ("common interface")

One or more may use a common API

AND

shall provide a **web UI**

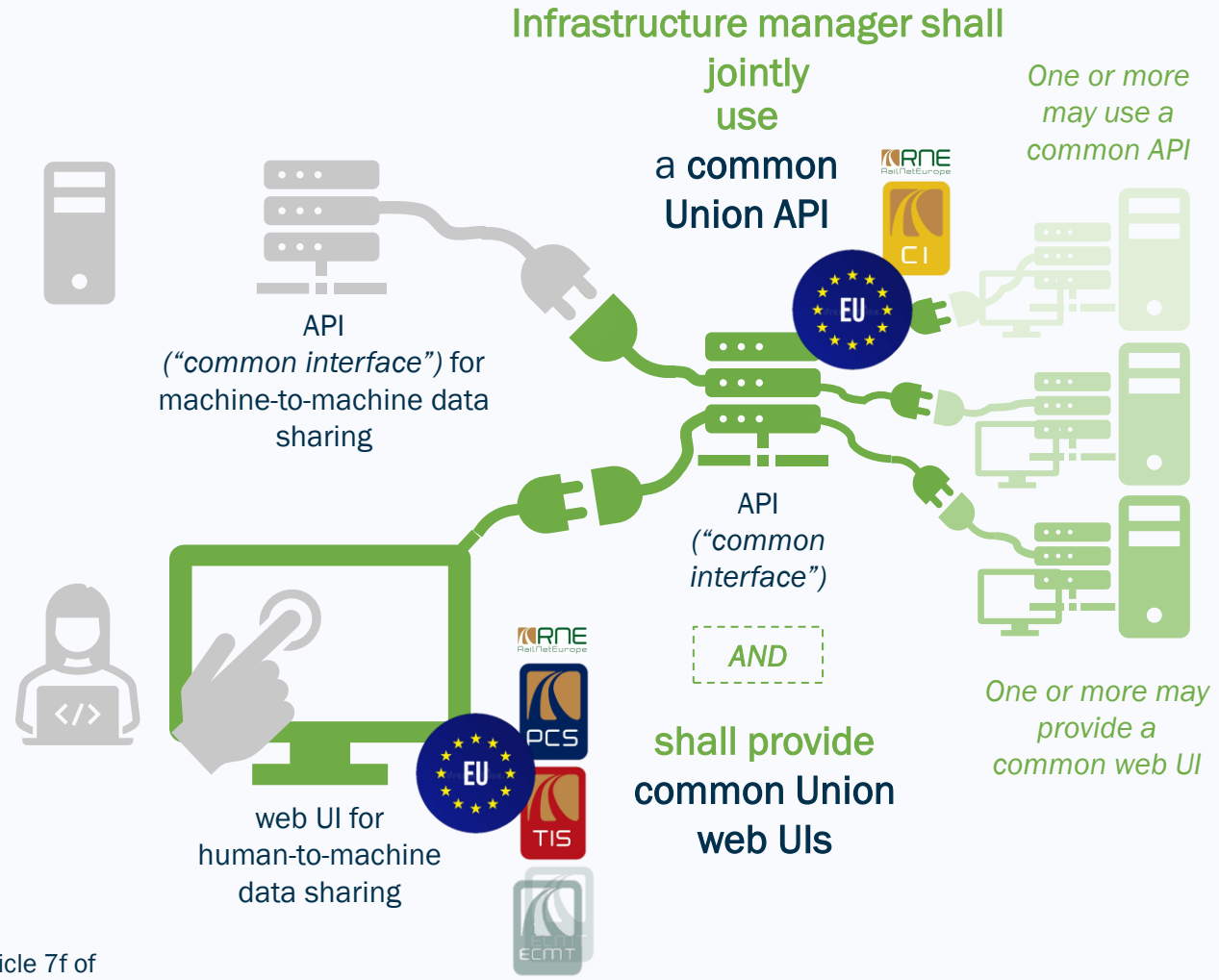
One or more may provide a common web UI

*minimum access package laid down in paragraph 1 of Annex II to Directive 2012/34/EU

Common Union telematics applications for multi-network processes

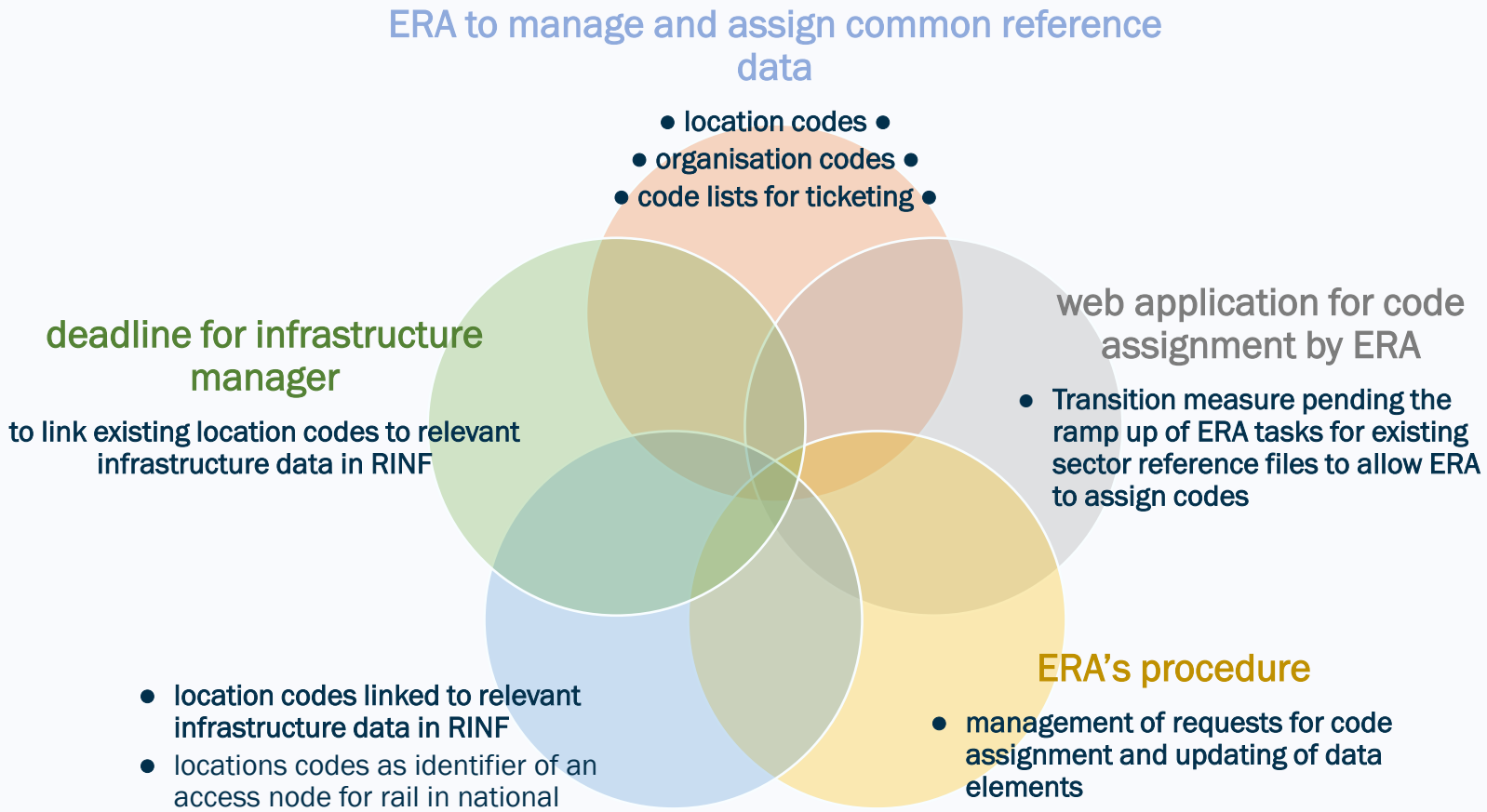
Development of specifications for common Union telematics applications (API and web UIs)

- reflecting existing capabilities of EU funded tools by RNE RailNetEurope
- coordination of infrastructure managers under the ENIM
- inputs to EUROPEAN UNION AGENCY FOR RAILWAYS
  - contributing to future developments of the subsystem telematics
  - legal specifications as part of ERA 2028 Recommendation



ENIM: European Network of Infrastructure Managers referred in Article 7f of Directive 2012/34/EU

Governance of common reference data under ERA



Common central repository and reference data

Common reference data

- geographical points (‘location codes’)
- entities involved in data sharing (‘organisation codes’)
- code lists for ticketing

Common central repository

EUROPEAN UNION AGENCY FOR RAILWAYS

Freight reference files

link to access the source of freight specific reference data

- Rolling stock reference databases
- Intermodal loading unit reference databases
- Wagon and intermodal loading unit operational databases

metadata

Data catalogue elements as subsets of the ERA Knowledge Graph

- TAF/TAP xsd
- Transmodel

PKI

list certification authorities for public key infrastructure (‘PKI’) in telematics applications

- part of the EU/EEA lists of qualified trust service providers pursuant to eIDAS Regulation (EU) No 910/2014

Reference data

- **Publicly available**
- **Free of charge**
- Access conditions for use
- Transparent, fair, reasonable and non discriminatory management

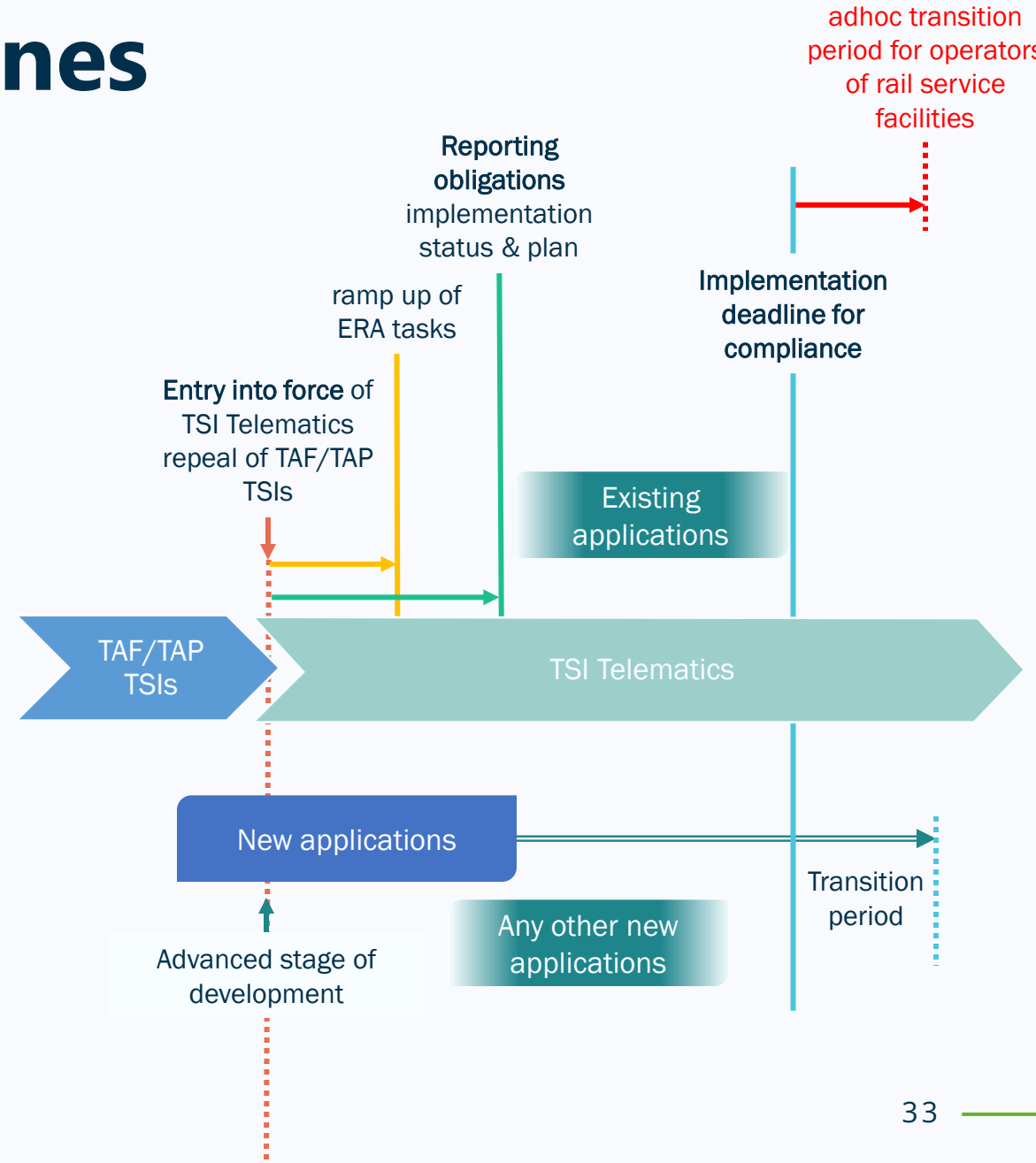
Implementation deadlines

General deadlines for compliance set out per processus

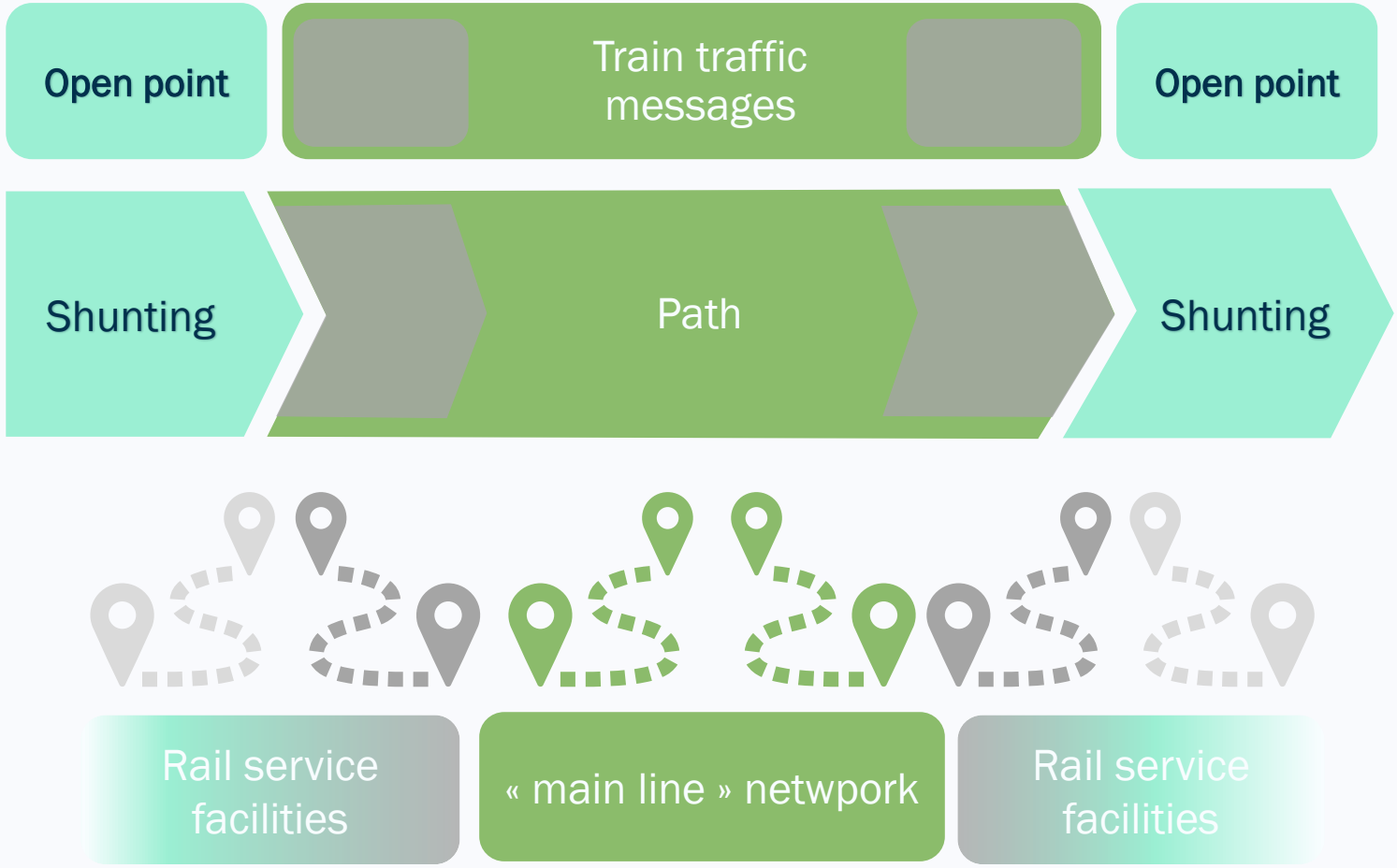
- subject to discussion at RISC 106 in June 2025
- including transition period for operators of rail service facilities
- including transition period of projects at advanced stage of development

Reporting to start gradually after entry into force to collect implementation plans ahead of deadlines for compliance

Transition period for the ramp up ERA tasks as system authority for telematics and the release required web applications



Capacity management in rail service facilities



Train traffic and wagon movements in rail service facilities

by the operator of rail service facilities **at least at exit from their facilities**

by infrastructure managers or operator of rail service facilities

by the operator of rail service facilities **at least at entry into from their facilities**

- based on wagon status messages received from railway undertaking and shunting operators
- Confirmation of train closure with *'train running information'*

Wagon movements

Train traffic

Wagon movements

Stabling and hunting

Path

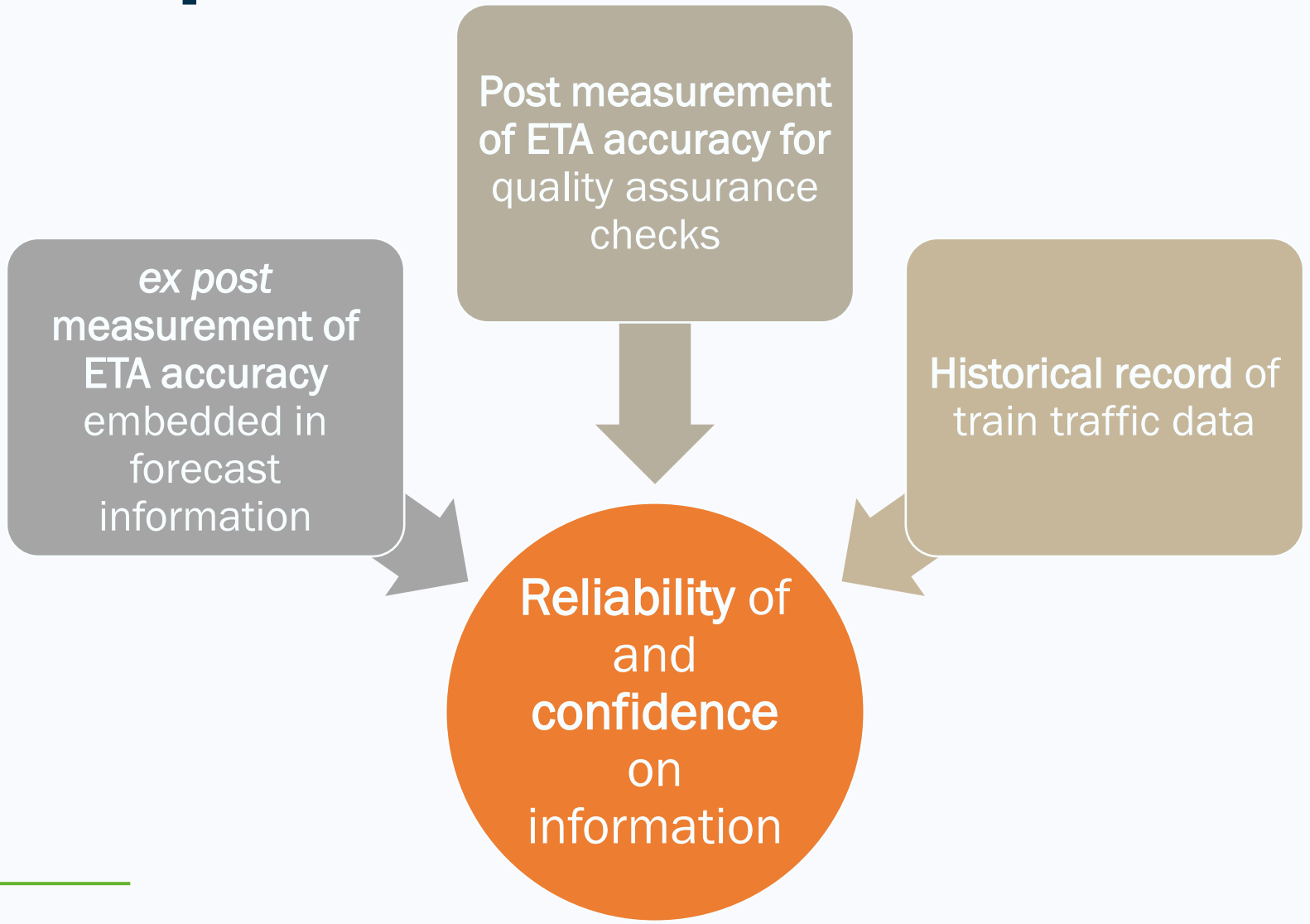
Stabling and hunting

Rail service facilities

« main line » netwpork

Rail service facilities

Data quality for efficient planning of onward operations or onward connections



Thank you

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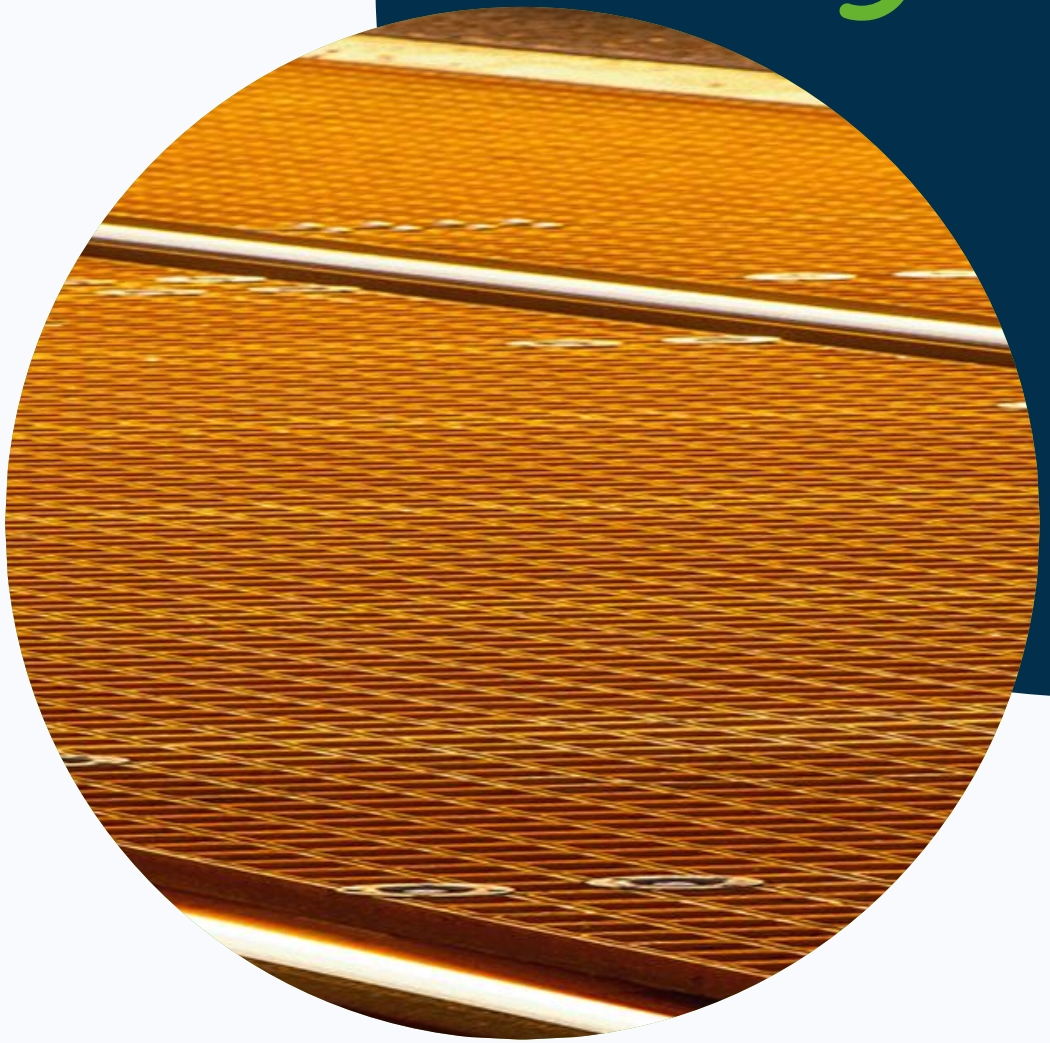
The KV 4.0 Digital Data Hub of Combined Transport

by Aldo Puglisi
Managing Director DX Intermodal GmbH



Agenda

- Introduction
  - KV4.0 Data Hub
  - Process coverage & standard interfaces
- KV4.0 Data Hub role in the EDICT project
- Main benefits for the CT stakeholders
- DX Intermodal Company
- Q&A

Starting situation

The complexity of intermodal supply chains is one of the biggest challenge of combined transport compared to other transport methods

Many parties and electronic data interfaces (Terminals, LSP, RU, etc.)

Elaborated organization of intermodal transports

Digital standalone solutions of the parties involved

Complex end-to-end information chain

Objectives

Common standard data hub for the exchange of bookings, timetable and shipment status data

Consolidation of all data within the intermodal supply chain

Real-time data

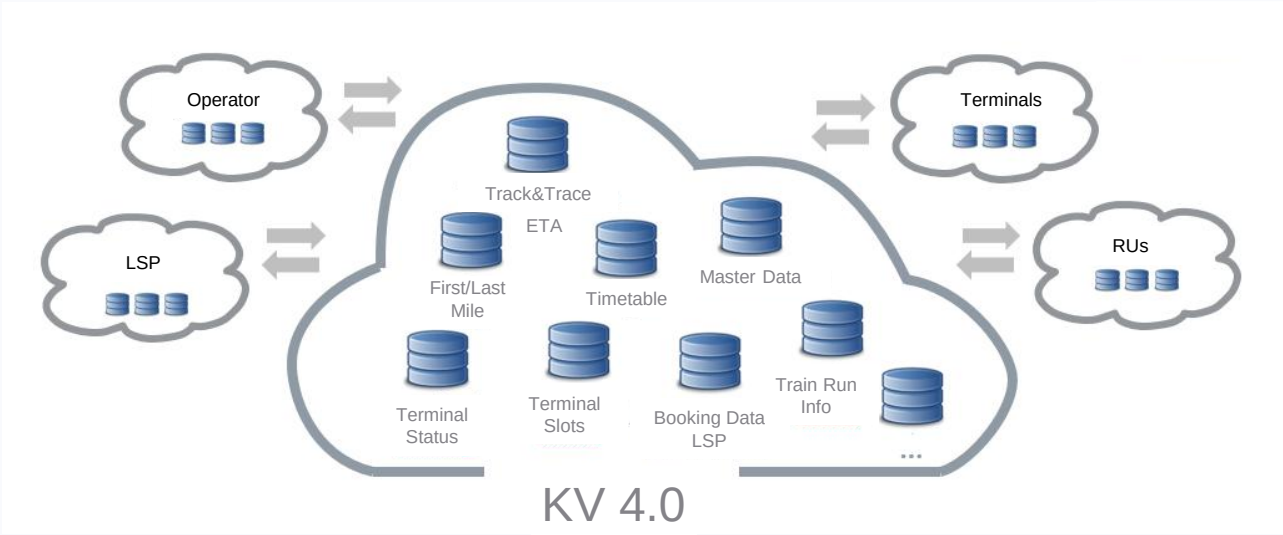
Harmonization of the electronic data interfaces

Data available and usable for all authorized parties involved

Supply chain transparency

KV4.0 Data Hub

- The KV4.0 Data Hub is the result of the KV4.0 Project implemented successfully in 2017-2020 and financed by German Ministry of Innovation
- The KV4.0 Data Hub is an open integrated data hub increasing transparency across the entire intermodal transport chain
- KV4.0 Data Hub is a modern cloud-based solution
- DXI Company founded in 2022 with the objective to manage the KV4.0 Data Hub
- All participating partners provides the relevant order and transport-related information (based on standard XML EDIGES format)



KV4.0 Data Hub is the result of KV4.0 Project

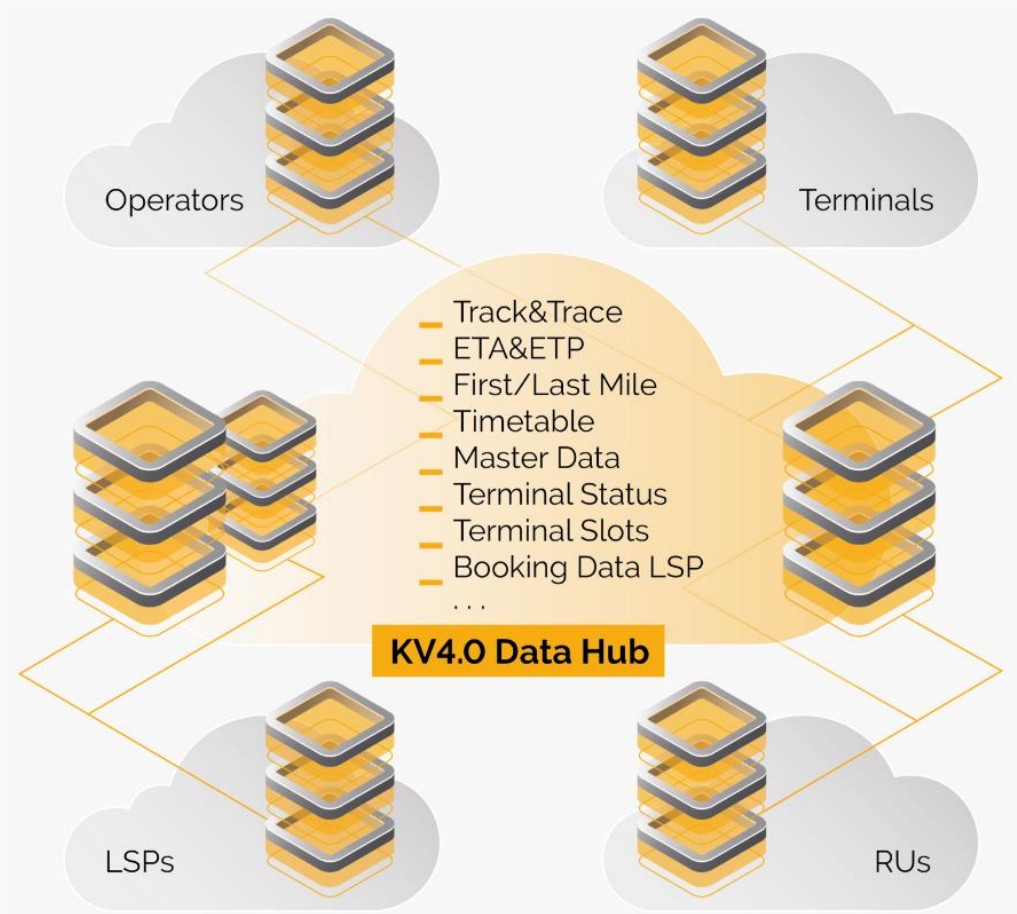
KV4.0 Project Partners

Logistic Service Providers	Hoyer GmbH, Hamburg	Paneuropa GmbH, Vechta
	Bertschi AG, Dürrenäsch	
Intermodal Operators	Kombiverkehr KG, Frankfurt	Hupac Intermodal SA, Chiasso
Railway Undertaking	DB Cargo AG, Mainz	SBB Cargo Deutschland GmbH, Duisburg
	Lokomotion Gesellschaft für Schienentraktion mbH München	
Intermodal Terminals	KTL Kombi-Terminal Ludwigshafen – STARK im Kombinierten Verkehr	Hupac SpA, Busto

What is the KV4.0 Data Hub?

- No Web platform (Web View) but an electronic data hub
- Central distributor for all messages of the intermodal supply chain
- Communication with the hub via standard REST API (URL, user, password and token)
- PUSH procedure for delivering data to the hub
- PULL procedure for collecting messages from the hub
- Uniform XML standard for data exchange: EDIGES 4.1
- Validation rules for conformity with the current EDIGES format
- Only the sender determines the respective recipients of the data
- No storage of data on the hub

KV4.0 Data Hub – Overall Concept

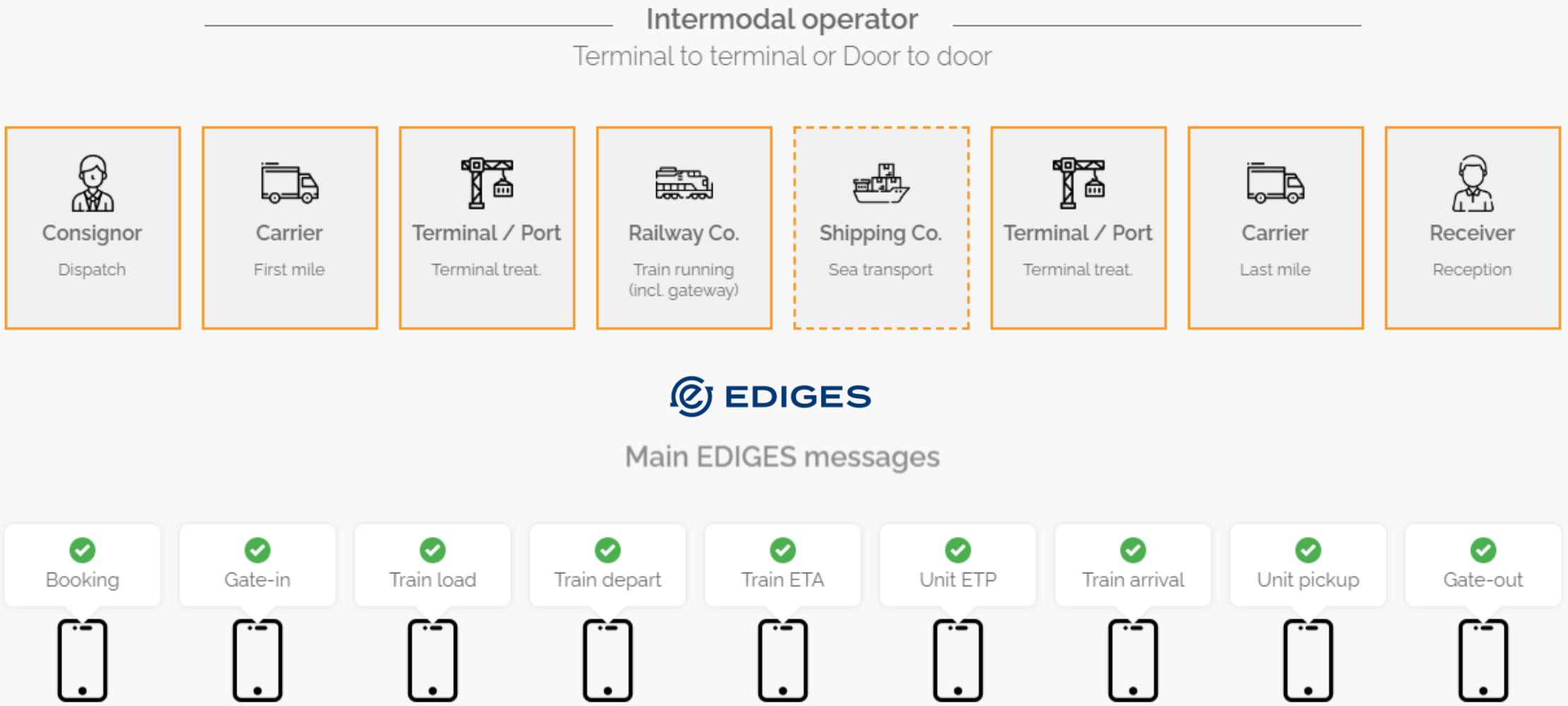


1. The **targeted stakeholders** for the hub are the operators, terminals, LSPs and Railway Undertakings

2. All **intermodal processes** are covered

3. All **EDIGES status messages** can be exchanged through the KV4.0 data

Standard intermodal process



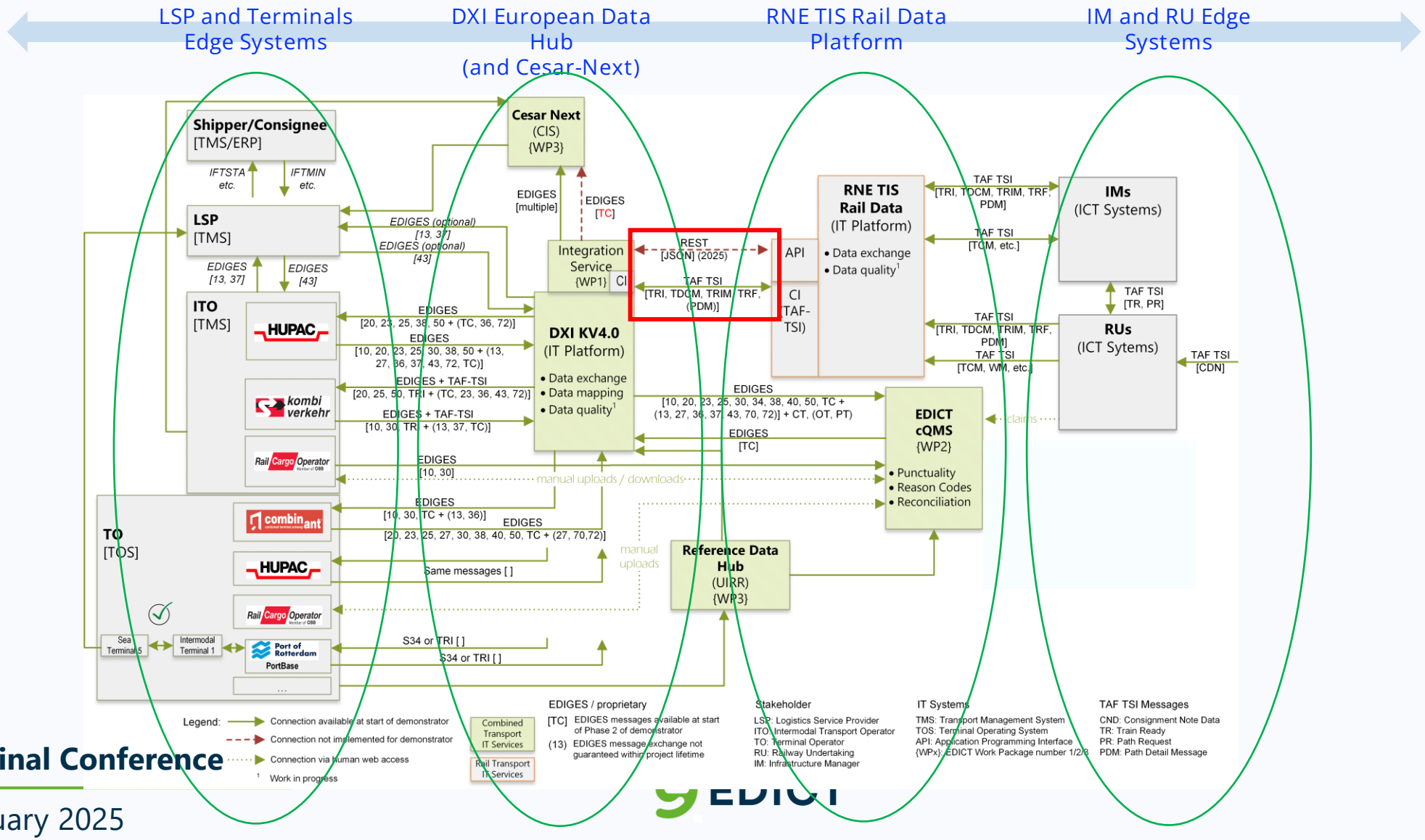
KV4.0 Data Hub: **role in the EDICT project**

- Design and implementation of integration services
  - for the terminal connectivity
  - for the intermodal operators and terminal operators for the cQMS
  - for the RNE common interface (CI) and with the RNE TIS application

- Mapping of EDIGES and TAF-TSI messages to facilitate the connectivity and data exchanges between ecosystems

- Extension of the Data Hub to exchange TAF TSI messages (TRI, TRF, PDM, TDM and TIM) to ease the connectivity of the TAF TSI users

KV4.0 Common Interface
connect the KV4.0 Data Hub with RNE TIS



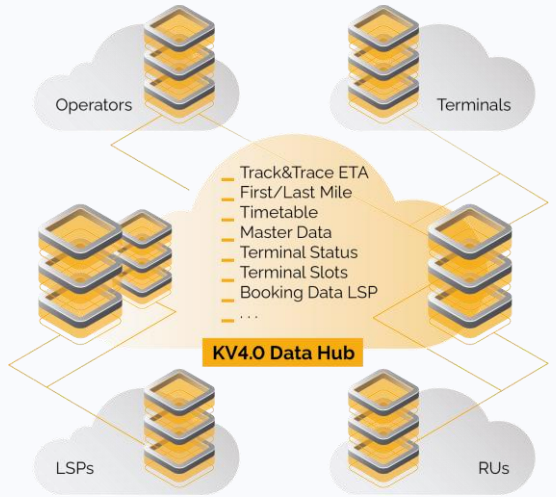
Main benefits for the CT stakeholders

Main Benefits

- Data **transparency** from the booking to the collection of the loading unit
- Transport units **booked through a single interface** for the LSP
- Optimized **forecast data** (ETA and ETP) in the event of irregularities
- Planning of the **terminal slots** is improved by the timely knowledge of planned shipment
- Improved **allocation of truck arrivals** and departures in the terminal
- Up-to-date **timetable** of all connected operators
- EDICT NEW **KV4.0 Common Interface**: an **easy-to-connect solution** for terminal and operators **KV4.0 Data Hub to the RNE TIS** application

Main Characteristics

- Single point for direct access to transport-relevant data of combined transport
- Optimized data exchanges costs thanks to a single interface
- Easy access via standardized interfaces with EDIGES
- Modern cloud-based solution



Current status of DXI activities

- Foundation of the company DXI GmbH (October 2022)
- Completion of the KV4.0 Data Hub productive version (February 2023)
- First commercial use (March 2023)
- Over 25 million messages have been transiting through the hub
- Promoting the data hub to other players (LSP, EVU, TO, IO)

- Currently message types provided by the users: commercial timetable, booking, ETP, ETA, train running, terminal status, terminal master data, DB Netz network disruption
- Connection of further message from the users ongoing (e.g. operational timetable)

How to get connected to KV4.0 Data Hub

Interested to get connected?

Contacts

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Christoph Büchner – Director DXI
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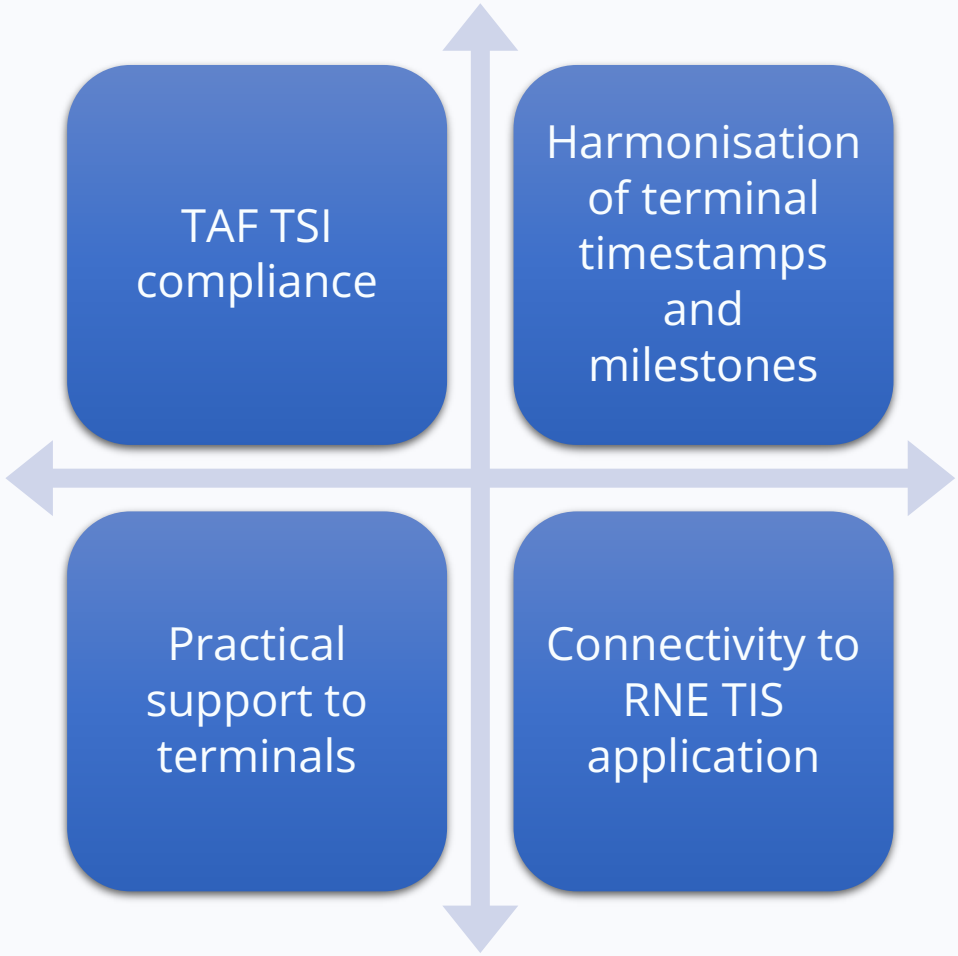
Terminal Integration

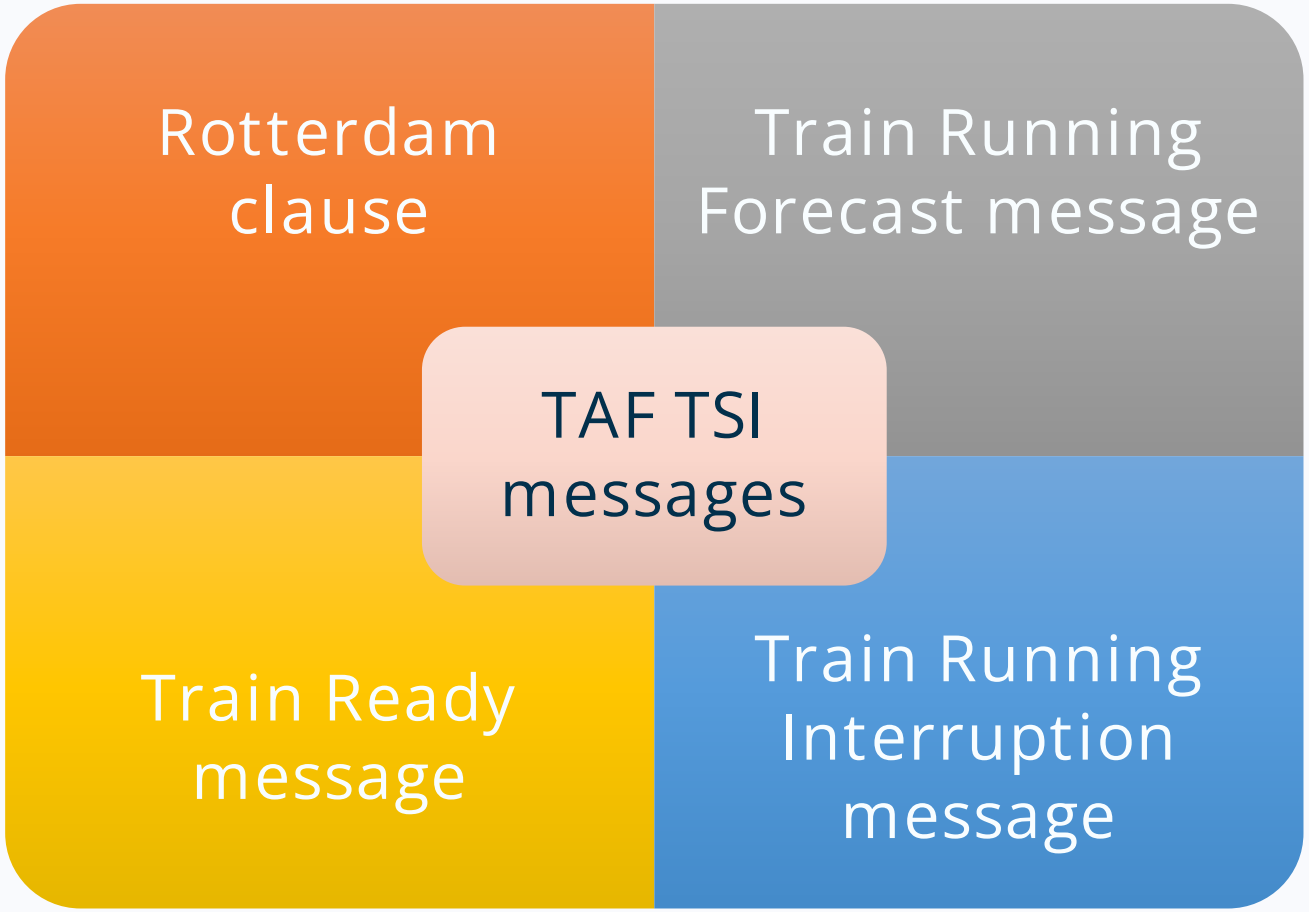
by Eric Feyen – Technical Director UIRR

EDICT: **the key objectives**



- TAF TSI : which are the essential requirements for the terminals
- Milestones / timestamps: which are the main elements in the terminal processes
- The implementation support needed for all categories of terminals
- The connectivity needs and requirements with the RNE TIS application

EDICT: **the TAF TSI requirements**



Telematics Applications for Freight - Technical Specifications for Interoperability (TAF-TSI)

- Terminals might exchange messages with identified stakeholders involved in the same freight service (Rotterdam clause)
- Terminals must send to RU the Train Ready Message (when the wagon set is ready)
- Terminals must receive train running forecast and train interruption messages.
- Provision of Estimated Time of Pick-ups by the terminals to the road trucking companies

EDICT: **the harmonised milestones**

Definitions

- Milestone : the status or geographic position of a train, wagon set or loading unit in the transport process
- Timestamp: the digital record of the time of occurrence of a particular milestone
- Actual Time / Time stamp : the time recorded once a specific milestone is reached
- Estimated Time / Time stamp : the time that a milestone is calculated to be reached
- Planned Time / Time stamp : the time that a milestone is scheduled to be reached according to a timetable

EDICT: **the milestones**

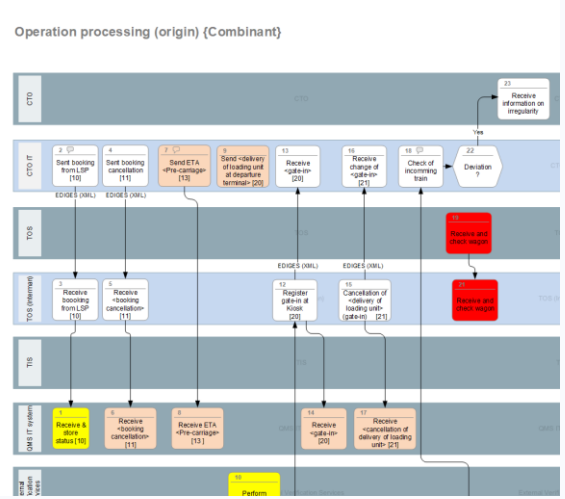
How was the inventory of milestones / time stamps created?

1. Mapping of the terminal operational processes: exercise performed with selected partners (Combinant, Hupac, WienCont, RCO) and validation by Port of Rotterdam and Duisport

2. Compilation of existing defined milestones and timestamps from R-CDM and Q-ELETA feasibility studies, current data exchange formats (TAF TSI, EDIGES)

3. Evaluation and selection of the milestones and timestamps

    - Long list with all selected milestones
    - Shortlist with all mandatory milestones



EDICT: **the harmonised milestones – short list**

TAF-TSI – Milestones to be sent by the terminal operators

Milestone ID	Description of the milestone	Direction of the message	TAF TSI Relevance & RNE TIS	EDIGES		Matching
				Message	Status (EDICT partners)	R-CDM
D06 D08	the time that a truck enters the terminal the time that a loading unit is unloaded from the truck)	TO => CTO		S20	50%-60%	
D13	the time when the ILU is loaded on the wagon	TO => CTO		S25	90%	
D16	the time that the wagon set must at the latest be handed over to the RU with documents given by the consignor (CTO or its representative/terminal) to the RU *Note: this is the so-called HLR*	TO => RU	X (TAF TSI Train Ready Message or TRI)	S70	20%	
D17	the train is ready to depart from the terminal *Note: this the actual HLR (responsibility handed over from TO to RU)*	TO => RU	X (TAF TSI Train Ready Message or TRI)	S30	60%	AELT-Actual End Loading Time
A06	the estimated time that a Loading Unit can be picked up at the arrival terminal (ETP)	TO -> CTO CTO -> LSP		S37	40%	
A09	the time that loading units, which have arrived by train, are available for pick-up by a Logistic Service Provider/road haulier	TO => CTO CTO => LSP		S40	70%	

Legend
TO = Terminal Operator | CTO = Combined Transport Operator | LSP = Logistics Service Provider | RU = Railway Undertaking
TRI = Train Running Information

- Some of these milestones should or have already been inserted as mandatory requirements into the TAF TSI Regulation, which should be displayed in the RNE TIS interface.
- All milestones related to unit level are not part of the TAF TSI Regulation; only train level information should be exchanged in the TAF TSI context among stakeholders.
- The milestones D16 or D17 are considered as the mandatory milestones. For the EDICT project D17 will be used. For EDIGES users, it means to use the message S30. For TAF TSI, the Train Ready Message or the Train Running Information (with a specific status code) should be considered for the RNE TIS integration.
- The other milestones are relevant for improved communication with CTOs or LSPs.

EDICT: **the mapping needs**

Which EDIGES/TAF TSI messages have been mapped

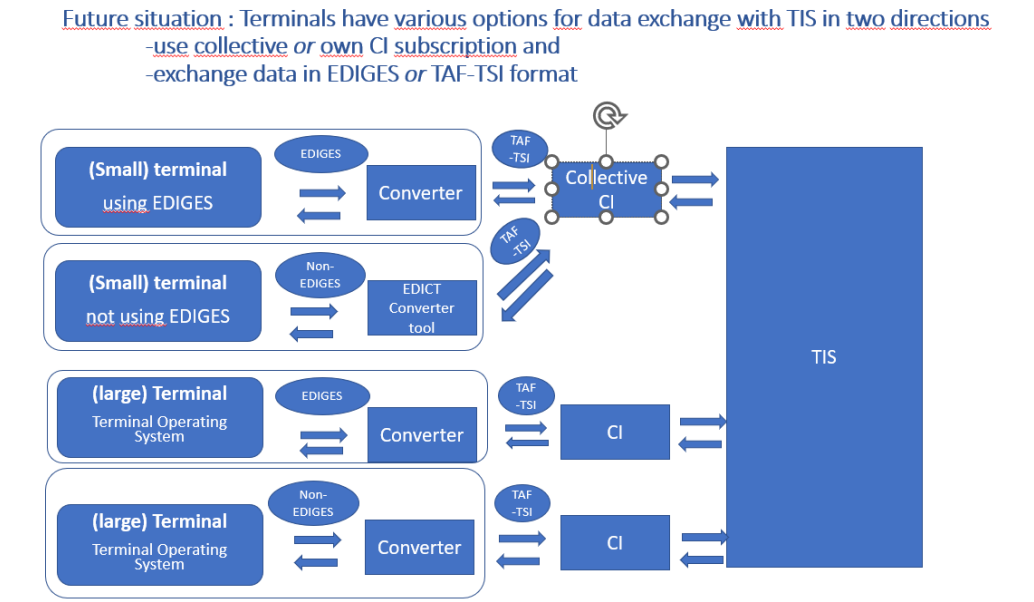
- EDIGES S30 (train closure) and TAF TSI Train Running Information (TRI) with status code 14 or 16
- EDIGES S34 (train transit control) and TAF TSI Train Running Information (TRI)
- EDIGES S36 (train ETA) and TAF TSI Train Running Forecast (TRF)
- EDIGES S38 and TAF TSI Train Running Information (TRI)
- new EDIGES TC & DM message and TAF TSI TIM & TDM

TARGET	SOURCE
ediges.header.status	36
ediges.header.version	4.1
ediges.header.statusDateTime	the current date time
ediges.header.msgDateTime	TrainRunningForecastMessage.MessageHeader.MessageReference.MessageDateTime
ediges.header.messageId	TrainRunningForecastMessage.MessageHeader.MessageReference.MessageIdentifier
ediges.header.sender.companyName	Rne
ediges.header.sender.registrationCode	3178
ediges.header.receiver.companyName	TrainRunningForecastMessage.MessageHeader.Recipient
ediges.timeCollection.trainETA.trainDetails.ruTrainId.objectType	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.ObjectType
ediges.timeCollection.trainETA.trainDetails.ruTrainId.company	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.Company
ediges.timeCollection.trainETA.trainDetails.ruTrainId.core	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.Core
ediges.timeCollection.trainETA.trainDetails.ruTrainId.variant	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.Variant
ediges.timeCollection.trainETA.trainDetails.ruTrainId.timetableYear	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.TimetableYear
ediges.timeCollection.trainETA.trainDetails.ruTrainId.startDate	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.StartDate
ediges.timeCollection.trainETA.trainDetails.departureDate	TrainRunningForecastMessage.TrainOperationalIdentification.TransportOperationalIdentifiers.StartDate
ediges.timeCollection.trainETA.trainDetails.trainNumber	TrainRunningForecastMessage.OperationalTrainNumberIdentifier.OperationalTrainNumber
ediges.timeCollection.trainETA.wagonNumber	0
ediges.timeCollection.trainETA.departureTerminal.terminalUIRRCode	0
ediges.timeCollection.trainETA.arrivalTerminal.terminalUIRRCode	0
ediges.timeCollection.trainETA.departureStation.stationUIC	0
ediges.timeCollection.trainETA.arrivalStation.stationUIC	0
ediges.timeCollection.trainETA.Location.locationSubsidiaryIdentification.locationSubsidiaryName	TrainRunningForecastMessage.TrainLocationReports.Location.LocationSubsidiaryIdentification.LocationSubsidiaryName
ediges.timeCollection.trainETA.Location.locationSubsidiaryIdentification.locationSubsidiary.TAFTSILocationSubsidiaryTypeCode	TrainRunningForecastMessage.TrainLocationReports.Location.LocationSubsidiaryIdentification.LocationSubsidiaryCode.LocationSubsidiaryTypeCode
ediges.timeCollection.trainETA.Location.locationSubsidiaryIdentification.locationSubsidiary.TAFTSILocationSubsidiaryTypeCode.value	TrainRunningForecastMessage.TrainLocationReports.Location.LocationSubsidiaryIdentification.LocationSubsidiaryCode.Value
ediges.timeCollection.trainETA.Location.locationSubsidiaryIdentification.allocationCompany	TrainRunningForecastMessage.TrainLocationReports.Location.LocationSubsidiaryIdentification.AllocationCompany
ediges.timeCollection.trainETA.Location.TAFTSILocationCountryISOCode	TrainRunningForecastMessage.TrainLocationReports.Location.CountryCodeISO.Value
ediges.timeCollection.trainETA.Location.TAFTSILocationPrimaryCode	TrainRunningForecastMessage.TrainLocationReports.Location.LocationPrimaryCOde
ediges.timeCollection.trainETA.Location.TAFTSILocationPrimaryName	TrainRunningForecastMessage.TrainLocationReports.Location.PrimaryLocationName
ediges.timeCollection.trainETA.Location.trainLocationStatus	01
ediges.timeCollection.trainETA.deltaTimeMinuteValue	TrainRunningForecastMessage.TrainLocationReports.TrainDelay.AgainstReferenced
ediges.timeCollection.trainETA.deltaSign	TrainRunningForecastMessage.TrainLocationReports.TrainDelay.AgainstReferenced
ediges.timeCollection.trainETA.positioningData.longitude	TrainRunningForecastMessage.TrainLocationReports.GeoLocalisationOnNetwork.GeoLocalisation.FNSSDynamicPosition.GeographicCoordinates.Longitude

Example of data mapping: TAF TSI Train Running Forecast (TRF) to EDIGES S36 (train ETA)

EDICT: **the dilemma for the terminals**

How to send the terminal relevant data to RNE TIS ?



- EDICT terminals are committed to exchange of data on terminal milestones (for trains) with TIS and ILU-based milestones with CTOs.
- The EDICT terminals were however balancing costs and benefits for the connections and were hesitating.
- Terminals had two main options:

  Option 1 :
  Take own TIS license, use RNE Common Interface and do own conversion/mapping

  Option 2 :
  Use an Integrated Service as intermediate to simplify data exchange with TIS through EDIGES and/or TAF TSI messages

EDICT: **the implementation**

The following terminal operators have implemented the EDICT specifications

Elaboration of a collaborative Quality Management System (cQMS) for Combined Transport

by Dr. Roland Klüber
Technical coordinator of EDICT, CEO Consilis

Agenda

Concept to demonstrator

01.	**cQMS Demonstrator Target**	**Targeted results and gaps to be closed**
02.	Collaborative Solution	Solution design to harmonise a heterogeneous context

Combinant's contribution

03.	Combinant's Capability Extension	Advancement of Combinant's terminal processes and data exchange

Conclusion

04.	Outcome & Outlook	EDICT results as building blocks for the future

Combined Transport Development Target

cQMS required an intensive coordination & collaboration effort to further develop Combined Transport:

1) Harmonise measurement of punctuality

2) Reason code standardisation and reconciliation process

3) Demonstrate practicability of cQMS based on real data for 5 running train connections

4) Identify gaps and hurdles for further evolution

1. Relevant timestamps (incl. input WP1)
2. Standard messages
3. Suitable IT integration architecture
4. 5 running trains for demonstrator
5. Reason codes and implemented processes
6. Alignment with TAF TSI
7. Future ready alignment with TSI Telematics

Agenda

Concept to demonstrator

01. cQMS Demonstrator Target — Gaps to be closed

02. **Collaborative Solution** — **Solution design to harmonise a heterogeneous context**

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cQMS solution design

Partners & roles within EDICT WP2

EDICT partner	CTO	TO
HUPAC	X	X
kombi verkehr	X	
Rail Cargo Group Member of ÖBB	X	X
combinant combined terminal antwerp		X

Workgroups

1) **Business:**
   Collaborative processes (incl. reason code reconciliation) & reason code specification and harmonisation
2) **ICT:**
   IT processes & interface specification and set-up for message exchange

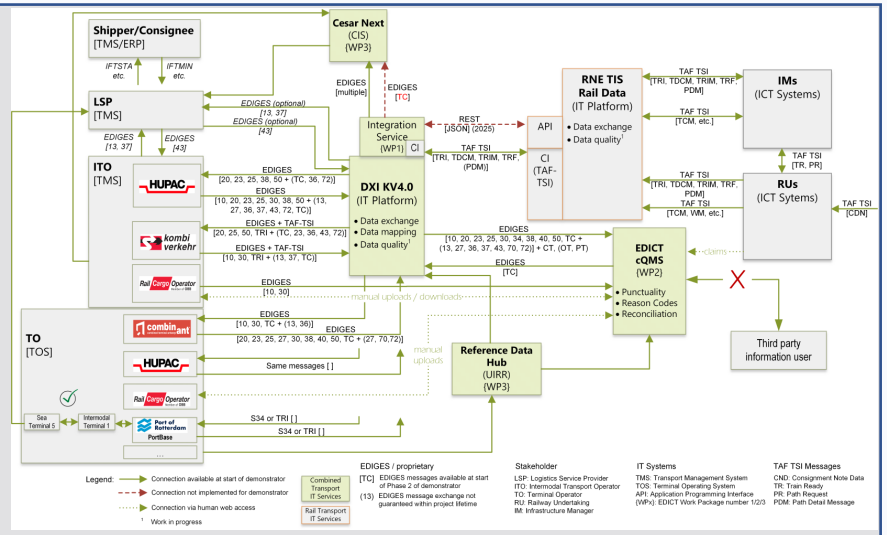
Technical implementation process:

1) Process documentation & alignment
2) Selection of 5 train lines
3) Tender for a software solution
4) Interface alignment, set-up, testing & monitoring
5) Develop new processes and interface for reason code exchange
6) Two-phased implementation & demonstration
7) Analysis of results

IT architecture & IT service providers

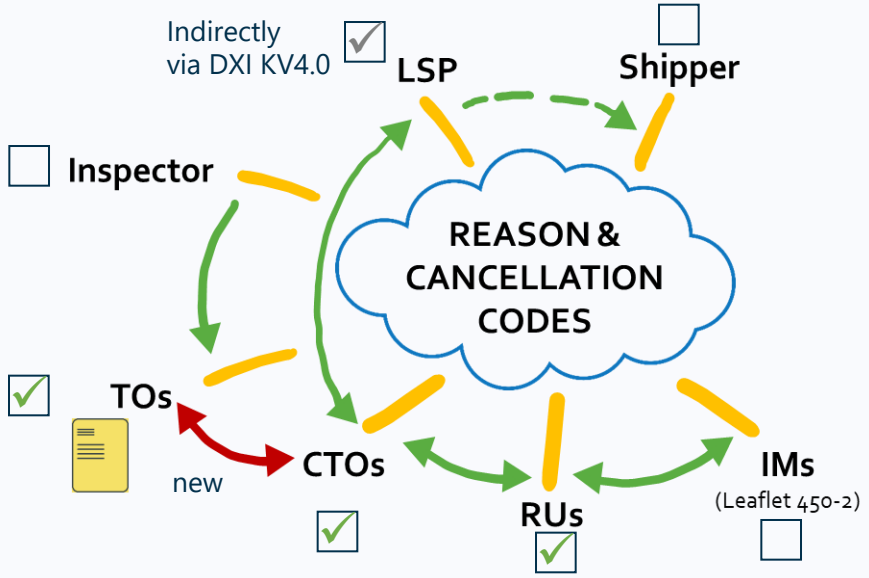
DXI

SIMPLY Deliver



Solution concept overview

1 Business Workgroup (Processes, KPIs & Reports)



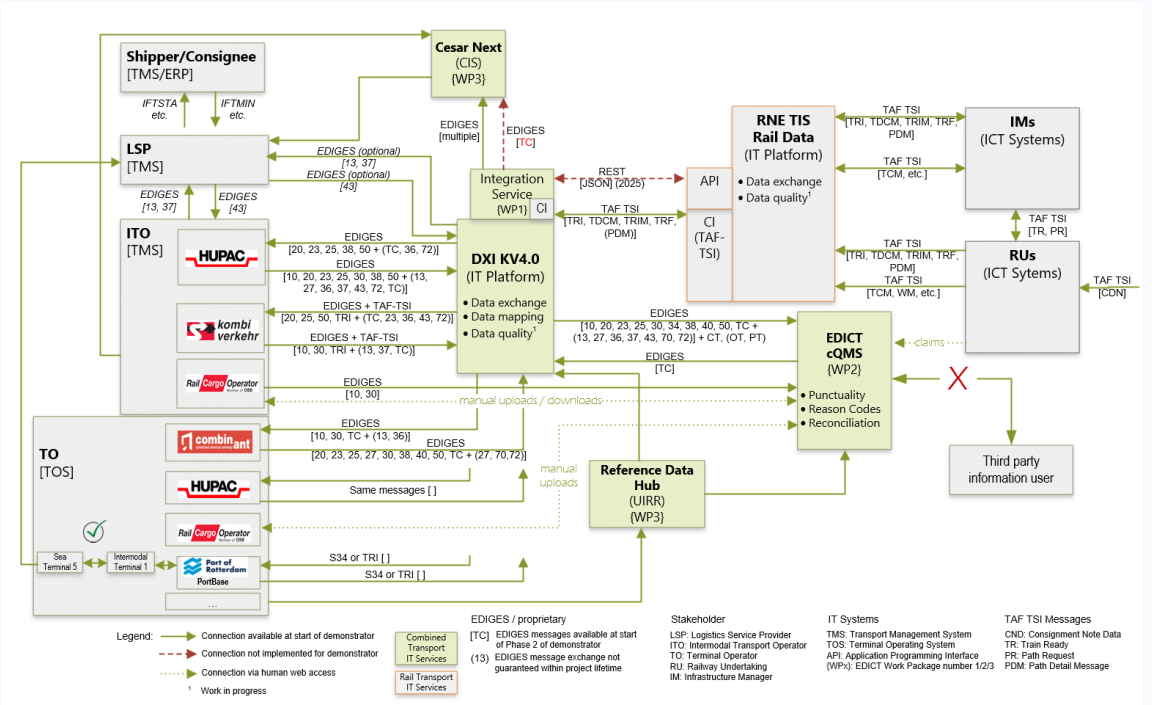
Two-level reason coding applied in demonstrator:

Top Category	Subcategory	Codes	Train level	Wagon level	Unit level	CTO role	TO role	RU role
	Booking unknown for the shipping line	A1009	x		x	x	x	x
	Blocked by customs	A1010	x		x	x	x	x
	Blocked by shipping line	A1011	x		x	x	x	x
	Displaced loading unit	A1012	x		x	x	x	x
	Size type not approved	A1013	x		x	x	x	x
	Unit blocked by terminal	A1014	x		x	x	x	x
	Unit blocked by CTO	A1015	x		x	x	x	x
	Unit loaded on wrong train	A1016	x		x	x	x	x
	National bank holiday	A1017	x		x	x	x	x
Technical unit issues		**A11**	**x**	**x**	**x**	**x**	**x**	**x**
	Damaged loading unit	A1101	x	x	x	x	x	x
	Unit rejected by inspection service	A1102	x	x	x	x	x	x
	Overload loading unit	A1103	x	x	x	x	x	x
	RID problem discovered by inspection service	A1104	x	x	x	x	x	x
	Leakage of loading unit RID goods	A1105	x	x	x	x	x	x

2 ICT Workgroup

Encompassing interoperability IT architecture

1) Integrate CT partners with different IT standards
2) Integrate with TAF TSI via certified EDIGES conversion
3) Utilise the flexibility of existing solutions (e.g. HLR/MAD)

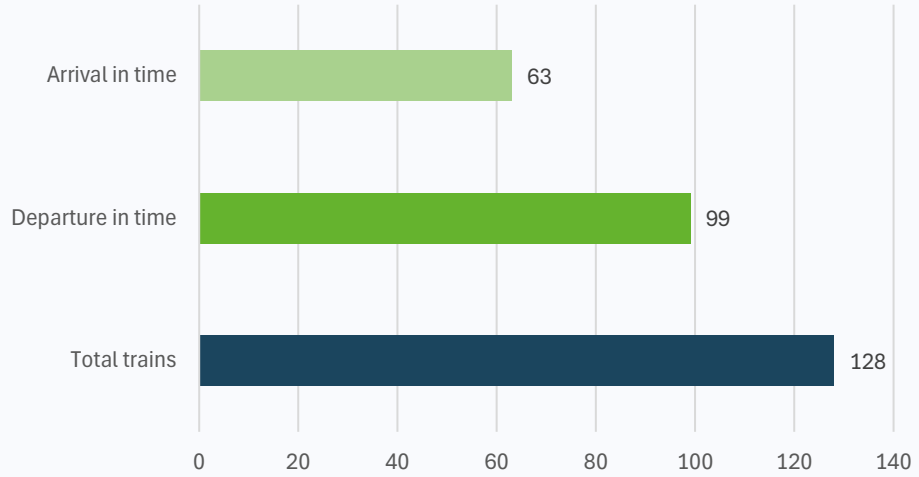


cQMS Demonstrator results

Data collected from
5 TEN-T train runs

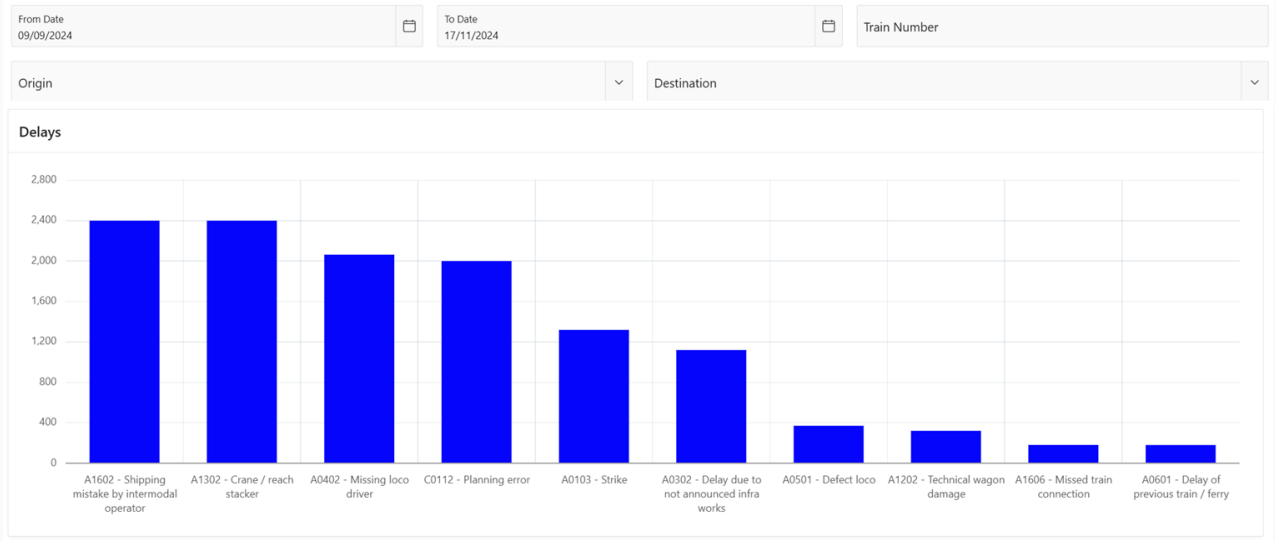
Name	TEN-T	CTO	TO	Frequency
Antwerp – Busto	Rhine-Alpine	Hupac	Combinant – Busto-Arsizio	5 – 6 per week
Antwerp – Duisburg	Rhine-Alpine	Kombiverkehr	Combinant – Duisburg-Ruhrort	3 per week (roundtrip)
Antwerp – Perpignan/Barcelona	North Sea-Rhine-Mediterranean	Hupac	Combinant – Barcelona El Morrot	5 per week
Busto – Ludwigshafen BASF	Rhine-Alpine	Hupac	Busto-Arsizio – Ludwigshafen BASF	17 per week (roundtrip)
Duisburg-Rheinhausen - Budapest	Rhine-Danube	RCO	Duisburg-Rheinhausen - BILK	3 per week (roundtrip)

1 Overall train statistics [1]



[1] Trains of phase 2 of the demonstrator only displayed

2 Reason Code Analysis (report from cQMS)



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01. cQMS Demonstrator Target — Gaps to be closed

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Advancements of processes and IT capabilities

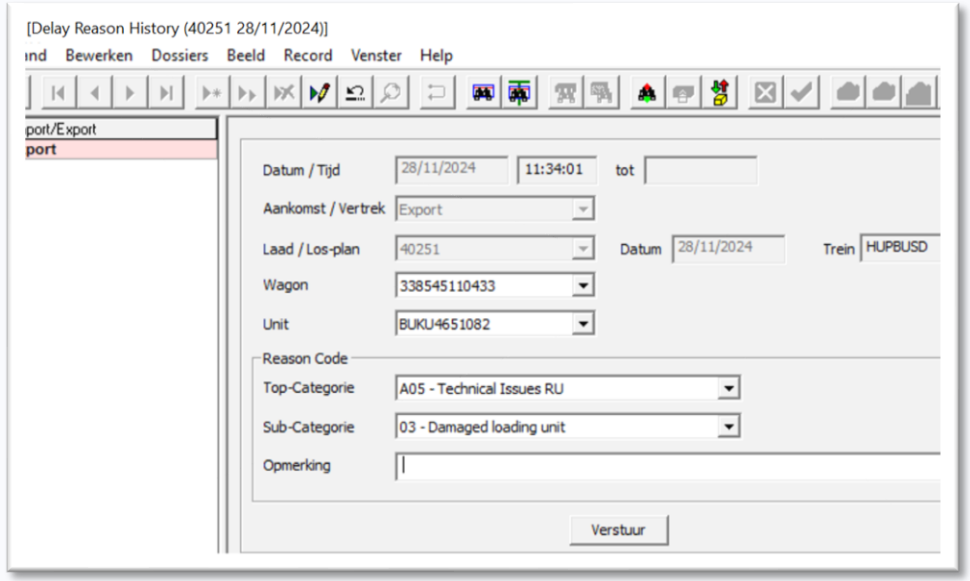
- Use of the latest technologies in the market;
  - Camco (Gate systems and OCR Camera's with damage detection)
  - Interman (Integrated Terminal Management system)
    - Running the terminal from Contract till Invoice
    - Full use of EDI communication (direct or via DXI)
    - Pré announcement of trucks via web application or EDI

  ➔ Full integrated in the supply chain & working with all actors
  ➔ TAF/TSI ready via DXI platform
  ➔ Reason code integration into Terminal Operating System

- Automation & Communication are the FUTURE and we have to prepare now.

- Combinant is running 24/6 with only 8 white-colar people in operations. This is only possible due to keeping your IT up-to-date

EDICT enabled reason code screen:



Preparation of compliance with future TSI Telematics regulations

There will be several changes imposed to terminals and CTOs in 2027-2028 due to TSI Telematics act in finalisation:

TSI Telematics Annex EN06 excerpt:

2.6. Reporting of train traffic data

2.6.1. General

(1) The following messages shall be in accordance with the specifications referenced in Appendix C index [2]:

- 'Train Running Information',
- 'Train Running Forecast',
- 'Train Delay Cause',
- 'Train Running Interruption'.

(2) Infrastructure managers and operators of rail service facilities in relation and limited to the segments of each rail transport service which is operated on their network, and where relevant other data holder:

(a) shall send to railway undertakings in relation to the rail transport services they operate,

(b) shall send to the common European telematics application referred to in Article 5,

(c) may, in addition, send bilaterally to relevant telematics stakeholders pursuant to Article 4,

the messages referred to in point (1) containing train traffic data.

TRI (EDICT solution: Intermodal Terminal sends notification of train closure (loading) with status code 14 and 16 for train arrival (unloading) to substitute current 'Train Ready' obligation)

Prepared data exchange of:
TDCM (only on wagon set level)
TRIM (only on wagon set level)

Combinant laid with EDICT the technical data sharing foundation to be already TSI Telematics compliant [1]

[1] Under the assumption that the final TSI Telematics regulation will still contain the same content

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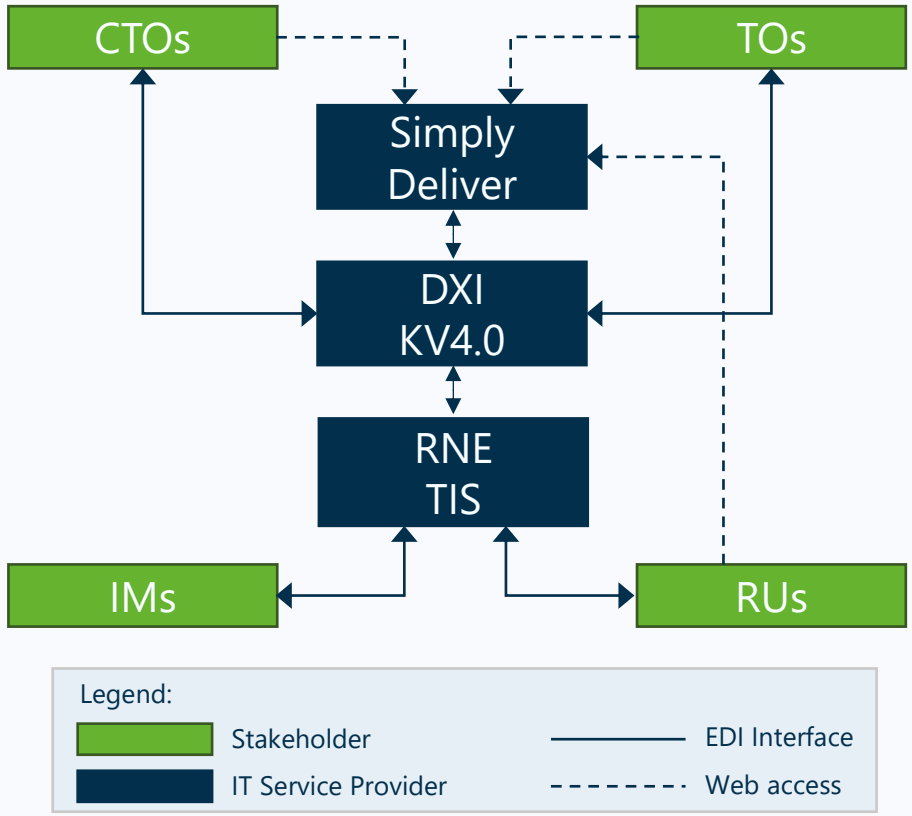
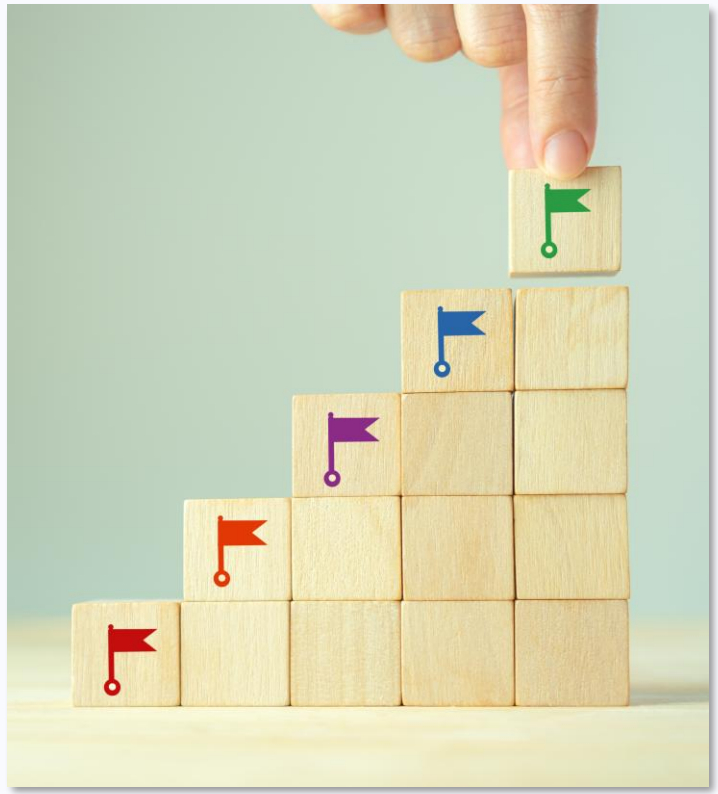
Key EDICT Results

1. Successful demonstration of **collaborative** punctuality monitoring, reason coding and reconciliation
2. Higher degree of **standardisation** (horizontally + vertically)
3. Higher degree of **interoperability** between CT and rail world
4. Higher degree of digital **data sharing** (messages + participants)
5. Robustness to react to disruptions achieved by extending existing IT service platforms



Building blocks for future improvements towards more data sharing and competitiveness of CT



1. Continuation of active communication with the rail sector to overcome identified still existing gaps
2. Improved, enhanced and widely adopted data sharing with LSPs (already enabled)
3. Requirements of TSI Telematics to reach compliance can be fulfilled (technical IT view) [1]
4. Reason coding standardisation and interoperability with rail sector
5. Wider adoption at adequate cost-value relations for SME Terminal Operators

[1] assessment based on TSI Telematics version 06

The successful upgrade of the CESAR application

by Aldo Croci – Chairman of CIS

Disclaimer
The contents of this publication are the sole responsibility of UIRR and do not necessarily reflect the opinion of the European Union.

EDICT Final Conference

11 February 2025

Co-funded by the European Union

CESAR platform : **operational partners**

ADRIA KOMBI	Major independent intermodal operator in the Southeastern Europe since 1989 – three intermodal hubs: Koper, Ljubljana, Maribor
HUPAC	Leading intermodal operator in Europe with a transport volume of 1,1 million road consignments – also terminal operator and wagon keeper
kombi verkehr	Leading intermodal operator in Europe with a transport volume of nearly 1 million road consignments – also wagon keeper
MERCITALIA INTERMODAL GRUPPO FERROVIE DELLO STATO ITALIANE	Major intermodal operator based in Italy with a transport volume of 0,5 million road consignments – also wagon keeper
NOVATRANS	Major intermodal operator in France since 1967 – also terminal operator and wagon keeper
Rail Cargo Austria Rail Cargo Group	Major railway undertaking and intermodal operator in Europe – also terminal operator and wagon keeper

CESAR platform : **the association**

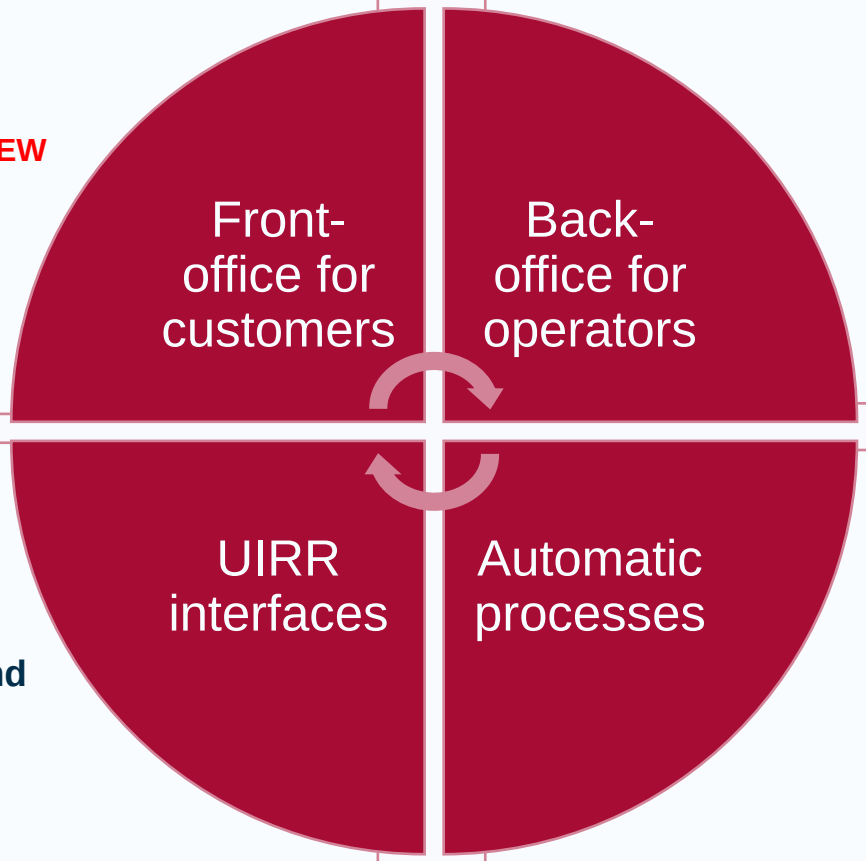
- **UIRR is the industry association of Road-Rail Combined Transport in Europe**
- **UIRR represents the interests of CT operators and terminal managers**
- **UIRR = network of 100 operators and partners**

CESAR-Next : **the ICT partner**

- Initially a software house, Fincons Group has evolved and become one of the leading players in international business consulting and system integration in support of technological and digital transformation.
- The Group has an extensive presence in Europe with offices in Italy, Switzerland, Belgium, France, Germany.

CESAR-Next : **project scope**

- **Tracking and tracing , transport events**
- **Booking** links to the operator's systems
- **Timetable** links to operator's systems
- **Irregularity management**
- **informative web pages**
- **ETP status Expected Time of Pick-up** NEW
- **Integration other transport modality (trucking , vessel, barge)** NEW
- **Application environment (cloud, microservice..)** NEW
- **Mobile application** NEW

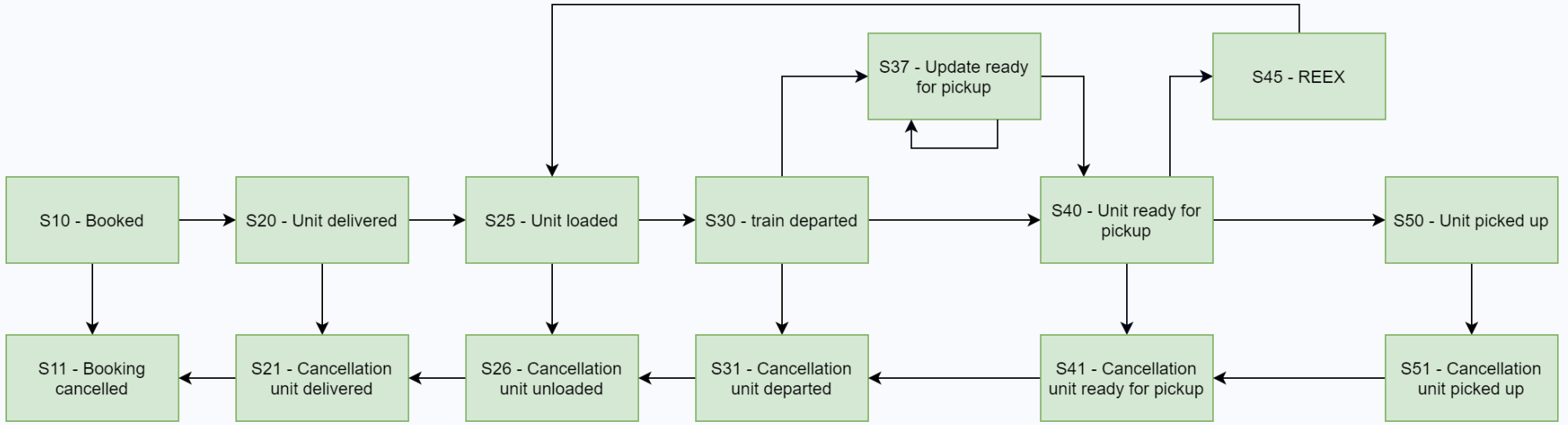


- Gateway code management
- Management of error logs
- Statistics
- User management
- Table of Terminal automatic arrival status management
- Transport management
- Irregularities
- Informative web pages

- **Regular automatic update** between UIRR platform to align **terminal codes and customer** to CESAR platform.

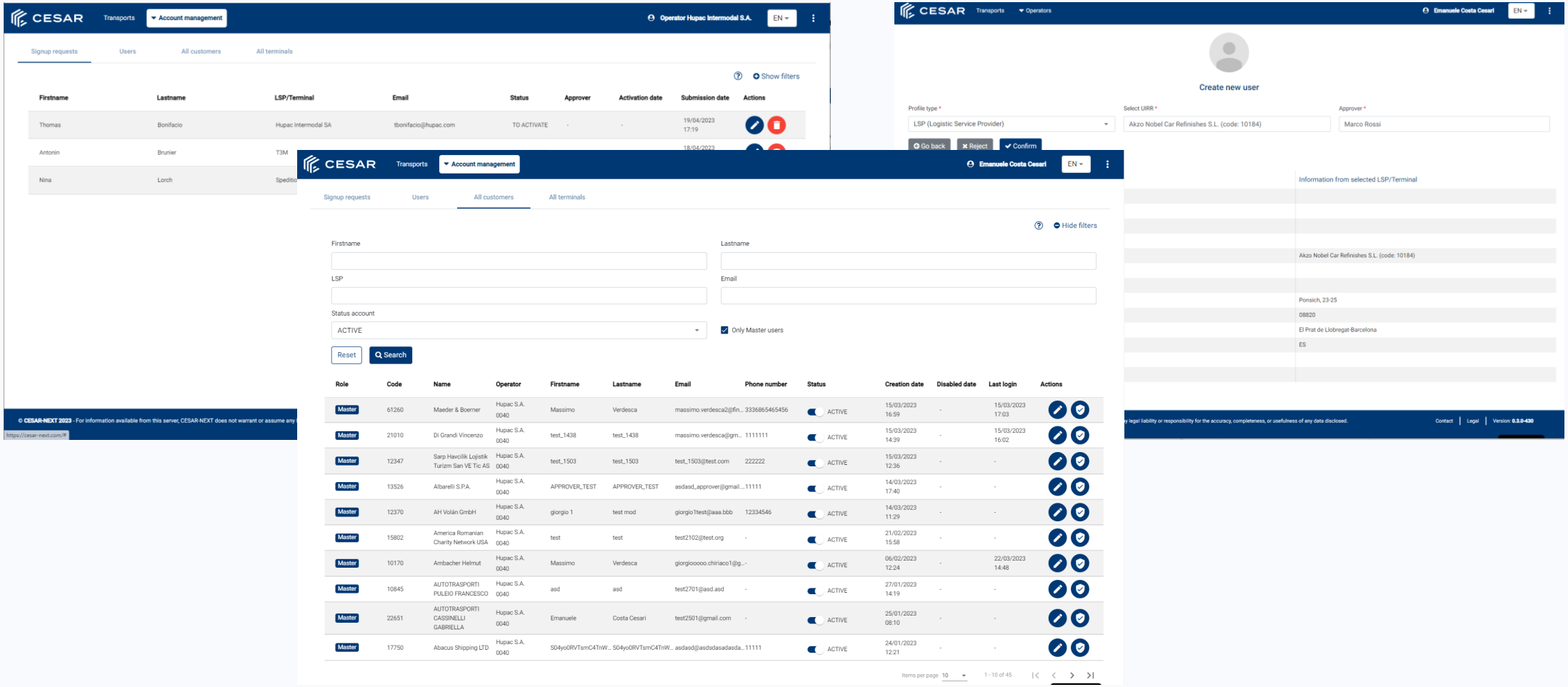
- Ingestion process
- Archiving process
- **B2B: EDI with customers based on xml message format**

CESAR Next: **Events of combined transport chain**



- **14 different transport status** information have been created: from S10 (booking information) to S50 (unit picked up). All these status codes have been extracted from the CT standard message format EDIGES.
- Train related information such as **train arrival forecasts and train ETAs** are also provided as key information to the customers.
- When available, an **estimate on the pick-up time (ETP)** is also shared on the platform according to the TAF TSI rules.

CESAR Next: **user management**



CESAR Next: **irregularity management**

- **Irregularities are defined at 3 different levels: the train, the wagon and the loading unit.** A 3-digit code has been implemented (for example 129 ILU loading mistake, 212 for technical problems on the wagon or 305 for missing locomotive).
- **Each operator handles himself information regarding transport irregularities.** Data that is common between operators should be stored in the CESAR server to be shared between them and send to the customers (mainly for the status evolution). Three new tables have been defined.
- **The information stored in the database** will be the data received plus **some additional automatic information** by CESAR-Next.
- **For each company** involved, CESAR-Next will **check** if this company **has the right to access information regarding the transport** (same check as for the classic queries from the browser). CESAR will not send any warning automatically. This is the responsibility of the operator.

CESAR-Next: **B2B service from Cesar-Next to Customers**

- **Scope of the service**
  - provision of an **XML-based message to customer containing information on transport statuses and irregularities**
  - **2025 18 Partners:** millions of xml messages exchanged yearly between Cesar-Next and customers , mostly large companies

- **Process of creation**
  - **Each LSP enabled to perform this function** will be given access to its own directory on an FSP/SFTP server where it can perform the download of this file.
  - The process of creating and saving a **new xml is managed by the CESAR-Next system**.
  - Based on this assumption, the **generated xml file will automatically stored in Operator specific space**
  - The creation of a new xml assumes that the **xml contains up-to-date information** on the statuses or irregularities of transports of interest to an LSP that has **corresponding** code in one of the **invoicee/sender/receiver** information.
  - The **data must be retrieved by delta,** that is, each new file will be created only and only if there are new updates since the last xml was created, otherwise the process will produce no output.

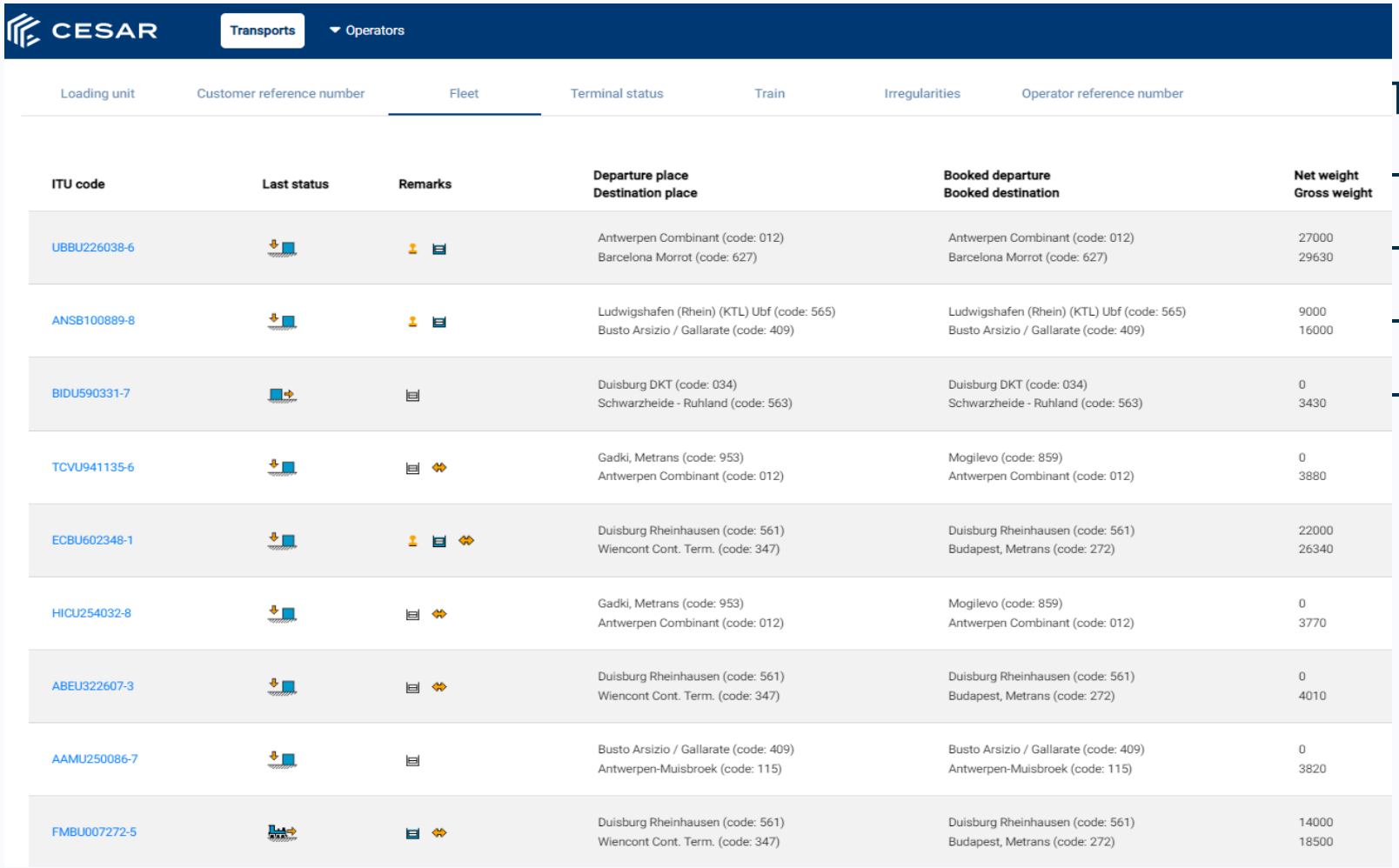
CESAR-Next: **web services with UIRR**

- **2 specific web services** have been created: (1) WS for the **UIRR customer and terminal codes (2) WS for the management of the gateway codes**
  - The first service allows a real-time synchronization of the codes managed by UIRR and available on the new application UIRR CDM with the CESAR tables.
  - The second service allows the creation of gateway codes by any CESAR connected operators.

- The web services exposed by the CESAR-NEXT platform adhere to the specifications of UIRR and the CT Operators. The calls, parameters and authentication mechanism are this conform to the official documentation provided for both services.

- For testing the web services calls on the new Cesar-Next Endpoint, a tool is required in order to make HTTP requests (for example Postman).

CESAR-Next: **some screenshots of tracking & tracing functions**

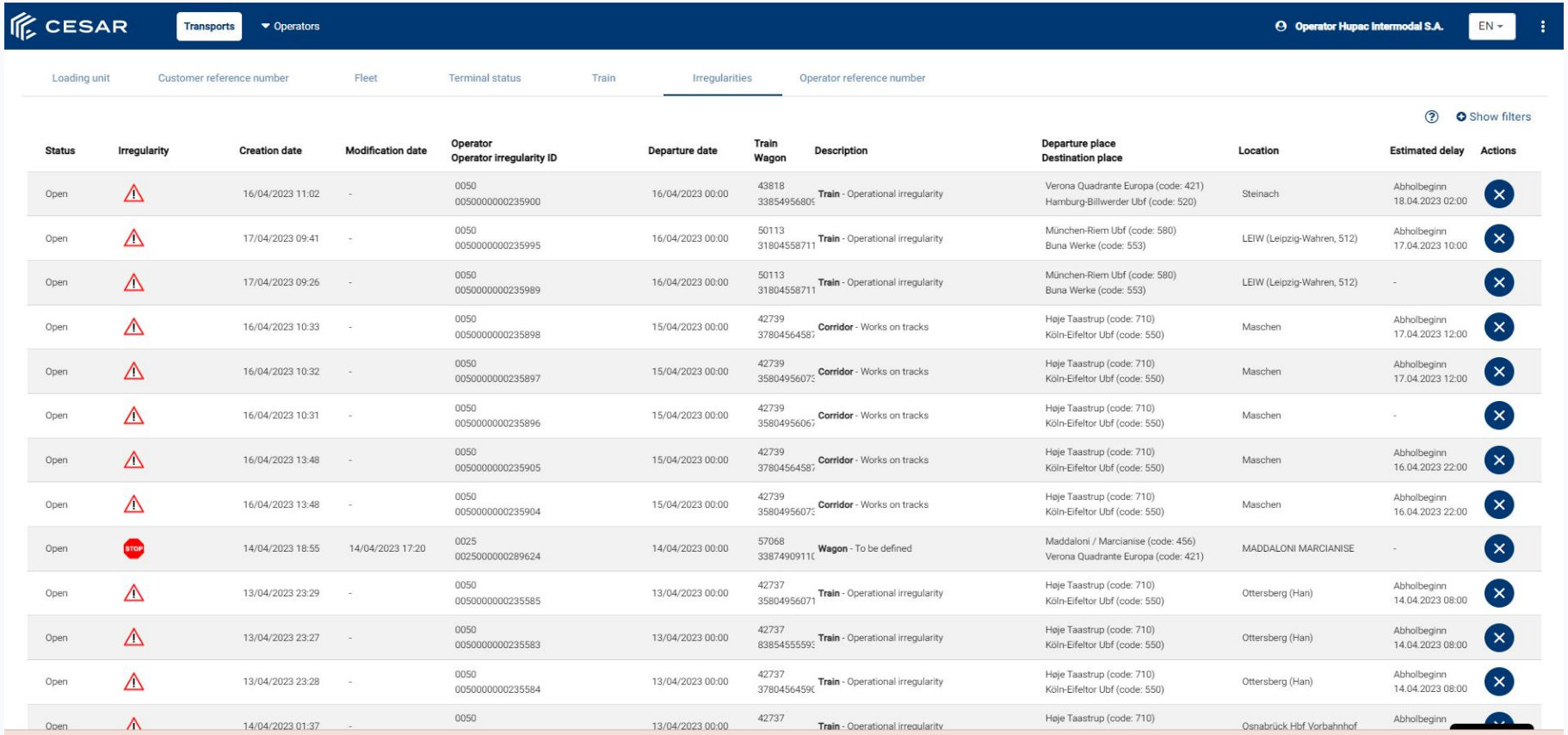


ITU code	Last status	Remarks	Departure place Destination place	Booked departure Booked destination	Net weight Gross weight
UBBU226038-6			Antwerpen Combinant (code: 012) Barcelona Morrot (code: 627)	Antwerpen Combinant (code: 012) Barcelona Morrot (code: 627)	27000 29630
ANSB100889-8			Ludwigshafen (Rhein) (KTL) Ubf (code: 565) Busto Arsizio / Gallarate (code: 409)	Ludwigshafen (Rhein) (KTL) Ubf (code: 565) Busto Arsizio / Gallarate (code: 409)	9000 16000
BIDU590331-7			Duisburg DKT (code: 034) Schwarzheide - Ruhland (code: 563)	Duisburg DKT (code: 034) Schwarzheide - Ruhland (code: 563)	0 3430
TCVU941135-6			Gadki, Metrans (code: 953) Antwerpen Combinant (code: 012)	Mogilevo (code: 859) Antwerpen Combinant (code: 012)	0 3880
ECBU602348-1			Duisburg Rheinhausen (code: 561) Wiencont Cont. Term. (code: 347)	Duisburg Rheinhausen (code: 561) Budapest, Metrans (code: 272)	22000 26340
HICU254032-8			Gadki, Metrans (code: 953) Antwerpen Combinant (code: 012)	Mogilevo (code: 859) Antwerpen Combinant (code: 012)	0 3770
ABEU322607-3			Duisburg Rheinhausen (code: 561) Wiencont Cont. Term. (code: 347)	Duisburg Rheinhausen (code: 561) Budapest, Metrans (code: 272)	0 4010
AAMU250086-7			Busto Arsizio / Gallarate (code: 409) Antwerpen-Muisbroek (code: 115)	Busto Arsizio / Gallarate (code: 409) Antwerpen-Muisbroek (code: 115)	0 3820
FMBU007272-5			Duisburg Rheinhausen (code: 561) Wiencont Cont. Term. (code: 347)	Duisburg Rheinhausen (code: 561) Budapest, Metrans (code: 272)	14000 18500

Tracking & tracing: **Search by :**

- **Loading unit**
- **By customer reference**
- **Terminal situation and status**
- **Train number**
  - Last status
  - Departure / Arrival forecast / real
  - Order information

CESAR-Next: **some screenshots of tracking & tracing functions**



Status	Irregularity	Creation date	Modification date	Operator Operator irregularity ID	Departure date	Train Wagon	Description	Departure place Destination place	Location	Estimated delay	Actions
Open	⚠	16/04/2023 11:02	-	0050 0050000000235900	16/04/2023 00:00	43818 3385495680	**Train** - Operational irregularity	Verona Quadrante Europa (code: 421) Hamburg-Billwerder Ubf (code: 520)	Steinach	Abholbeginn 18.04.2023 02:00	✕
Open	⚠	17/04/2023 09:41	-	0050 0050000000235995	16/04/2023 00:00	50113 31804558711	**Train** - Operational irregularity	München-Riem Ubf (code: 580) Buna Werke (code: 553)	LEIW (Leipzig-Wahren, 512)	Abholbeginn 17.04.2023 10:00	✕
Open	⚠	17/04/2023 09:26	-	0050 0050000000235989	16/04/2023 00:00	50113 31804558711	**Train** - Operational irregularity	München-Riem Ubf (code: 580) Buna Werke (code: 553)	LEIW (Leipzig-Wahren, 512)	-	✕
Open	⚠	16/04/2023 10:33	-	0050 0050000000235898	15/04/2023 00:00	42739 3780456458	**Corridor** - Works on tracks	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Maschen	Abholbeginn 17.04.2023 12:00	✕
Open	⚠	16/04/2023 10:32	-	0050 0050000000235897	15/04/2023 00:00	42739 3580495607	**Corridor** - Works on tracks	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Maschen	Abholbeginn 17.04.2023 12:00	✕
Open	⚠	16/04/2023 10:31	-	0050 0050000000235896	15/04/2023 00:00	42739 3580495606	**Corridor** - Works on tracks	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Maschen	-	✕
Open	⚠	16/04/2023 13:48	-	0050 0050000000235905	15/04/2023 00:00	42739 3780456458	**Corridor** - Works on tracks	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Maschen	Abholbeginn 16.04.2023 22:00	✕
Open	⚠	16/04/2023 13:48	-	0050 0050000000235904	15/04/2023 00:00	42739 3580495607	**Corridor** - Works on tracks	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Maschen	Abholbeginn 16.04.2023 22:00	✕
Open	STOP	14/04/2023 18:55	14/04/2023 17:20	0025 0025000000289624	14/04/2023 00:00	57068 3387490911	**Wagon** - To be defined	Maddaloni / Marcianise (code: 456) Verona Quadrante Europa (code: 421)	MADDALONI MARCIANISE	-	✕
Open	⚠	13/04/2023 23:29	-	0050 0050000000235585	13/04/2023 00:00	42737 35804956071	**Train** - Operational irregularity	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Ottersberg (Han)	Abholbeginn 14.04.2023 08:00	✕
Open	⚠	13/04/2023 23:27	-	0050 0050000000235583	13/04/2023 00:00	42737 8385455559	**Train** - Operational irregularity	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Ottersberg (Han)	Abholbeginn 14.04.2023 08:00	✕
Open	⚠	13/04/2023 23:28	-	0050 0050000000235584	13/04/2023 00:00	42737 3780456459	**Train** - Operational irregularity	Høje Taastrup (code: 710) Köln-Eifeltor Ubf (code: 550)	Ottersberg (Han)	Abholbeginn 14.04.2023 08:00	✕
Open	⚠	14/04/2023 01:37	-	0050	13/04/2023 00:00	42737	**Train** - Operational irregularity	Høje Taastrup (code: 710)	Osnabrück Hbf Vorbahnhof	Abholbeginn	

Tracking & tracing: **irregularities**

- Creation date
- Departure date
- Train / wagon
- Reason
- Location
- Estimated delay

CESAR upgrade: **facts and figures**

1,600 customers and users
(large/medium/small companies)

320 European terminals
involved

Yearly, approx. **2,7 mio transports and 17,6 mio transport events**

approx. **7 mio. querys and 16 mio. web pages** requested

CESAR Website www.cesar-next.com
is **free of charge**

18 B2B customers connected by full EDI data download service

The CESAR-NEXT B2B customers

Conclusions – **The CESAR-Next collaborative platform…**

1. … is **in full production since May 2023 without any major complaints from the users**

2. … provides **new and more accurate status information** (such as ETAs and ETPs in case of irregularities) to the final customers (LSPs)

3. … offers **additional features** such as a door-to-door intermodal transport management connecting rail to road, short-sea-shipping and inland waterway

4. … is **fully compliant to EDIGES**, the EDI standard data exchange format in the Combined Transport sector

5. … has attracted **new users and new B2B customers**

BERTSCHI

Chief Operating Officer (COO)

KEY FIGURES

991 M Turnover	39 Countries	1'000 Trucks
3'250 Employees	73 Subsidiaries	47'000 Containers

LIQUIDS | DRY BULK | GLOBAL | SOLUTIONS

SUSTAINABILITY

Bertschi saves over 200,000 tonnes of CO2e emissions every year in comparison to pure road transportation.

Customer Testimony : **Bertschi Group**

- *• Bertschi Group is a worldwide leading intermodal transport group for the chemical industry and one of the first combined transport customers to join the Cesar platform more than 17 years ago.*
- *Cesar-Next platform o7ers information and events of intermodal transports operated by several Intermodal Operators involving many intermodal terminals in Europe.*
- *The new Cesar-Next platform has been designed with the best technologies offering several advantages in terms of performance and new functionalities.*
- *Combined transport Operator joining Cesar-Next in addition to Cesar , offers an up-to-date forecast of the arrival and availability of the unit at the terminal (Expected Time of Pickup ETP), which is very useful considering train quality which is often low as trains are delayed.*
- *For the quality standards of our Group and working with several Operators, it becomes essential to have a standardized and constant information flow from Cesar-Next to our information systems, enabling us to inform our worldwide customers in real time about their transport.*

We therefore rate Cesar-Next as a great success for combined transport!

Michael Baechler (COO Bertschi Group)

Bernardini Group

Francesco Giorgini
Head of Sales and Business Development

Group Turnover 28 M
Employees 39

The company

A winning choice – that of the Bernardini Group – to follow the challenge of multimodal transport by using the services of specialized companies, rather than continuing with the classic system by road.
60 years of experience makes him incomparable in 6 specific sectors:

- Multimodal Transport
- Storage & Warehousing
- Cleaning
- Product Manipulation
- Special Services (Vacuum Silos)
- Maintenance of Industrial Vehicles

Customer Testimony : **Bernardini Group**

.. The adoption of Cesar Next arose from a need, first internal and then external.

- *Internally, the main need was to optimise the control and visibility system of the ITUs.*

  With a fleet consisting of 2,800 containers and 380 flatracks, the implementation of GPS devices on all units was impractical due to the high running costs.
  Consequently, we looked for a solution that would allow us to gain visibility where historically there was a complete lack of information: the rail route.
  Subsequently, the market also showed a growing need for transparency in the status of shipments, with a particular demand for tracking&tracing functionality.

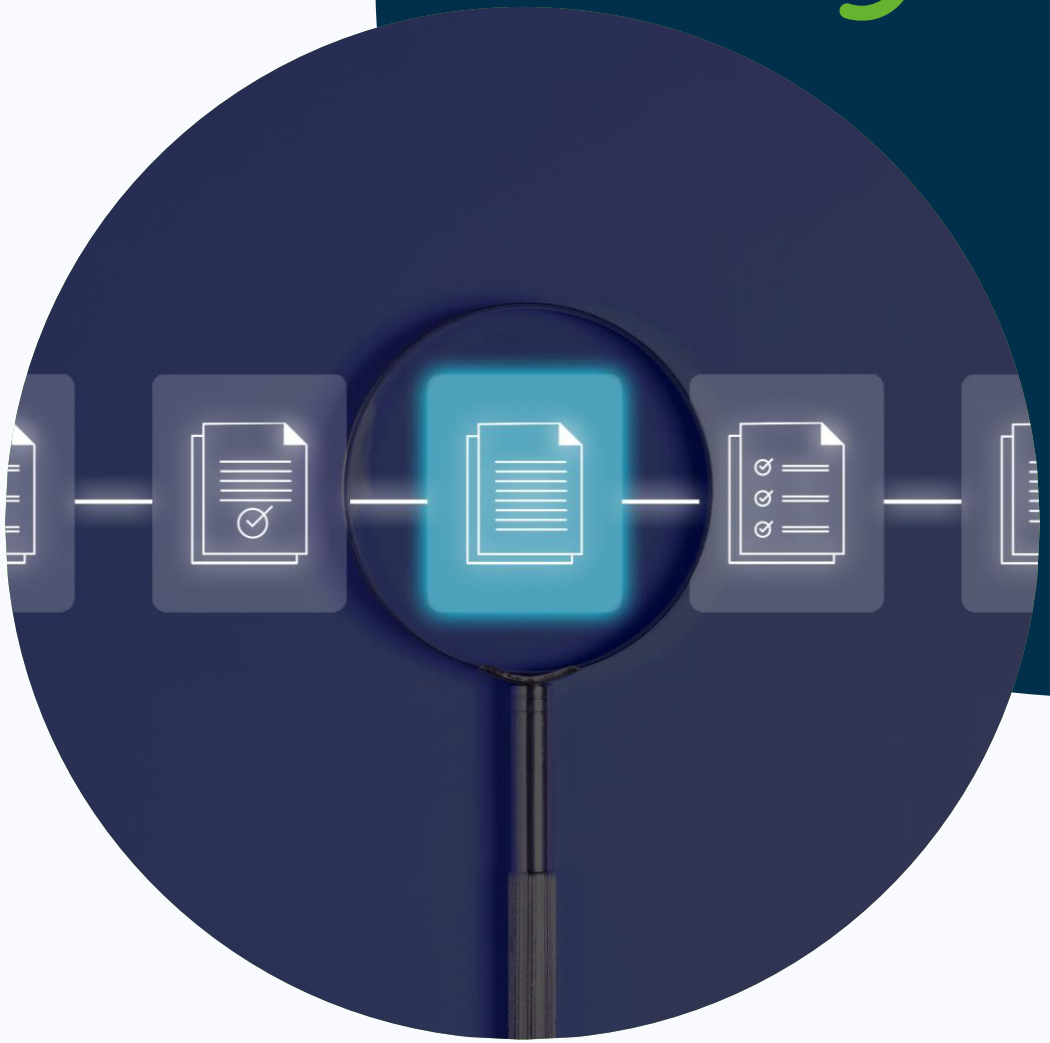
- *In this context, Cesar Next's APIs. ,service Cesar-Next B2B, proved to be a fundamental tool to fill these needs, offering an effective solution for both internal management and industry demands.*

- *Cesar-Next has satisfied both requirements offering also to our organization either web-functionalities and EDI data downloading to be integrated in our software platform .. Cesar-Next is a strategic tool for our Group !*

Francesco Giorgini - Head of Sales and Business Development

The reference files

by UIRR Team



EDICT: **the importance of reference files**

Reference files as backbone for consistency, accuracy and efficiency

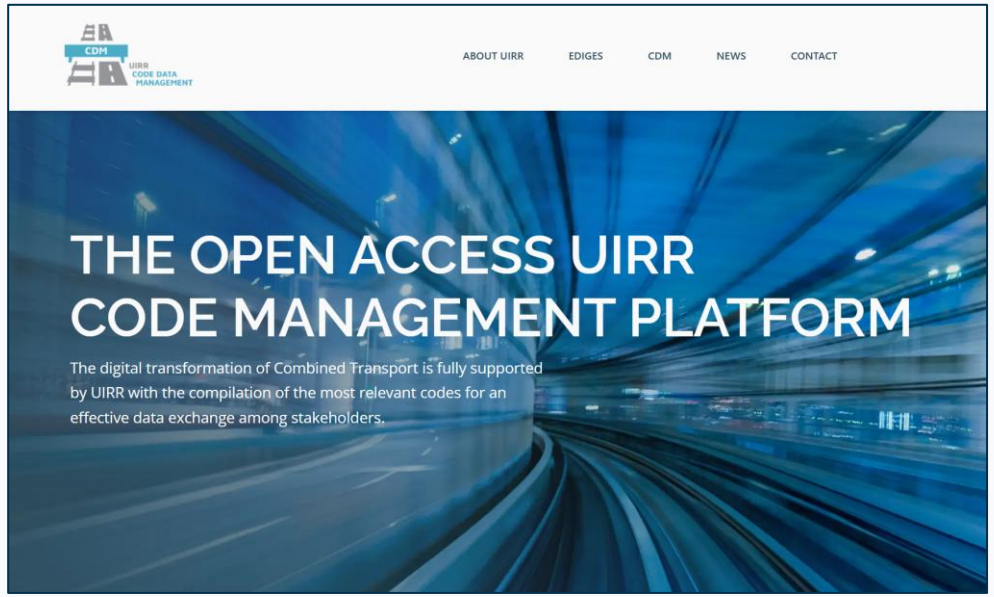
• Standardisation	uniform data structure
• Data integrity & accuracy	single source of truth
• Automation & Efficiency	automated data validation
• Interoperability	common framework for seamless data exchange
• Compliance	regulatory requirements (TAF TSI, Waste)
• Cost reduction	lower operational costs

UIRR CDM: the new Code Management Platform

by Rémi Penet – Junior Project Officer, UIRR

EDICT: **the UIRR CDM application**

From codes.uirr to UIRR CDM



https://cdm.uirr.com/

- Neutral platform for all CT stakeholders and free of charge for all UIRR registered users
- More than 50 regular users and 15 companies
- Multilanguage (DE, EN, FR, IT)
- Collection of standardised codes used in operational data exchange (17 codes: terminals, customers, damages, waste, dangerous goods, loading units)

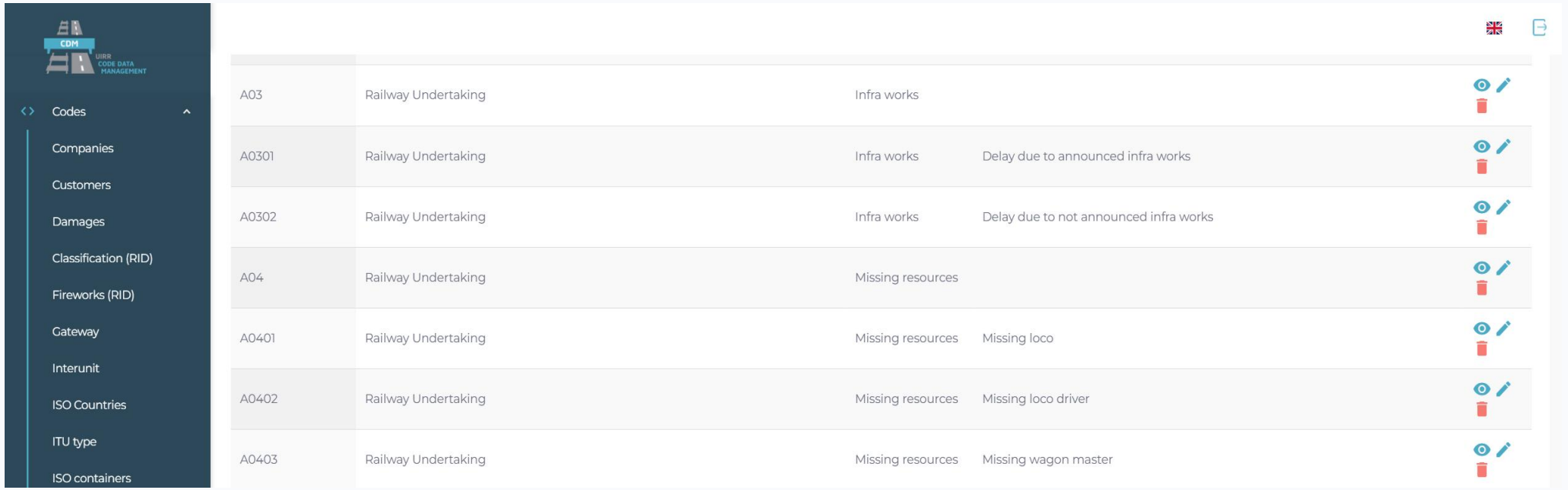
EDICT: **the UIRR CDM application**

Current and potential integration

EDICT: **the UIRR CDM application**

Latest developments

- Harmonised reason codes (WP2) have been integrated in the CDM
- Upgraded security (creation of roles and access rights allowing read-only feature for certain options)



The ILU-Code Platform

by Mateusz Nowak – Digital Project Officer and Administrator of ILU-Code, UIRR

Background the ILU-Code

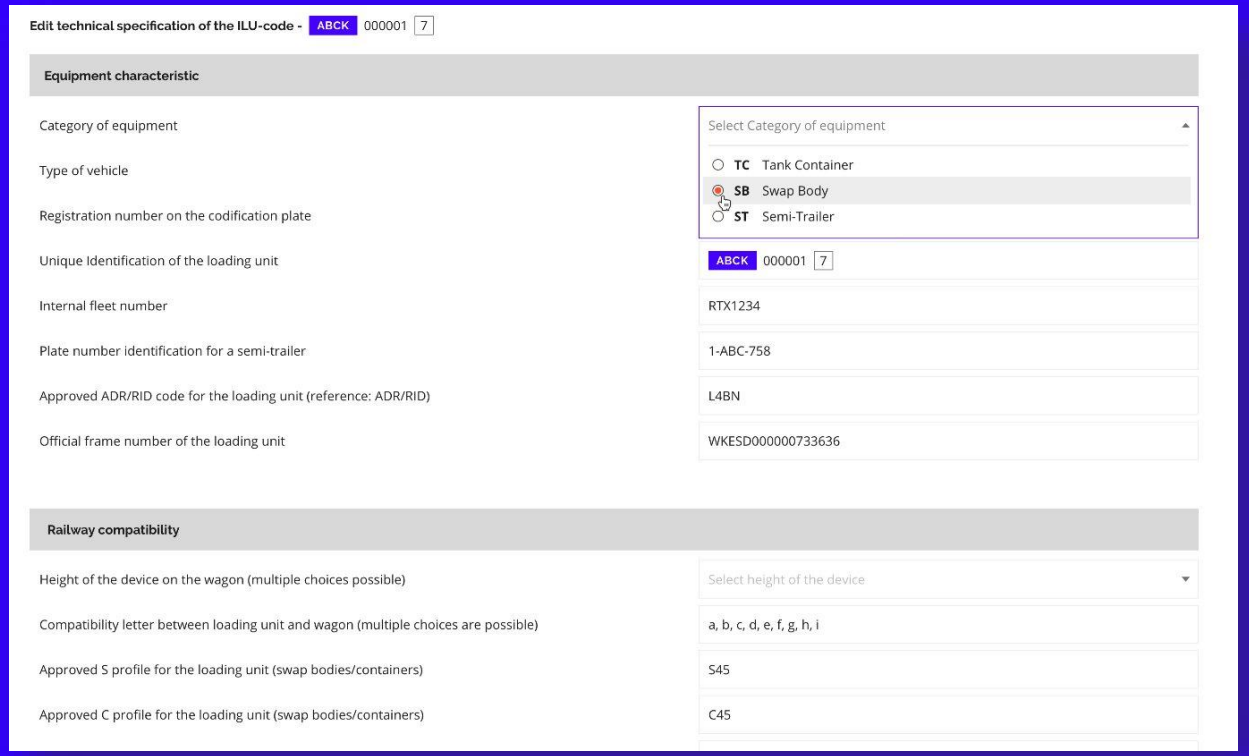
- Service based on the implementation the European EN 13044 standard (similar to BIC-Code for maritime containers)
- Introduced to the sector in 2011 and mandatory from June 2014
- New 2.0 version of the system released in December 2023
- Currently 1,025 active ILU-Keys with more than 19,000 registered ILU-Numbers

Needs for the change

Limitations in integrating with modern digital logistics platforms.	Increased Demand and possibilities for Digitalization in intermodal transport sector
Old technologies limiting further developments and increasing stability risks	Modernised interface allowing addition of new functionalities
Basic Register of ILU-Keys with a calculation of ILU-Numbers with the check-digit exported to Excel file (not saved online)	ILU-Register with the technical details for each Loading-Unit complient with TSI Telematics

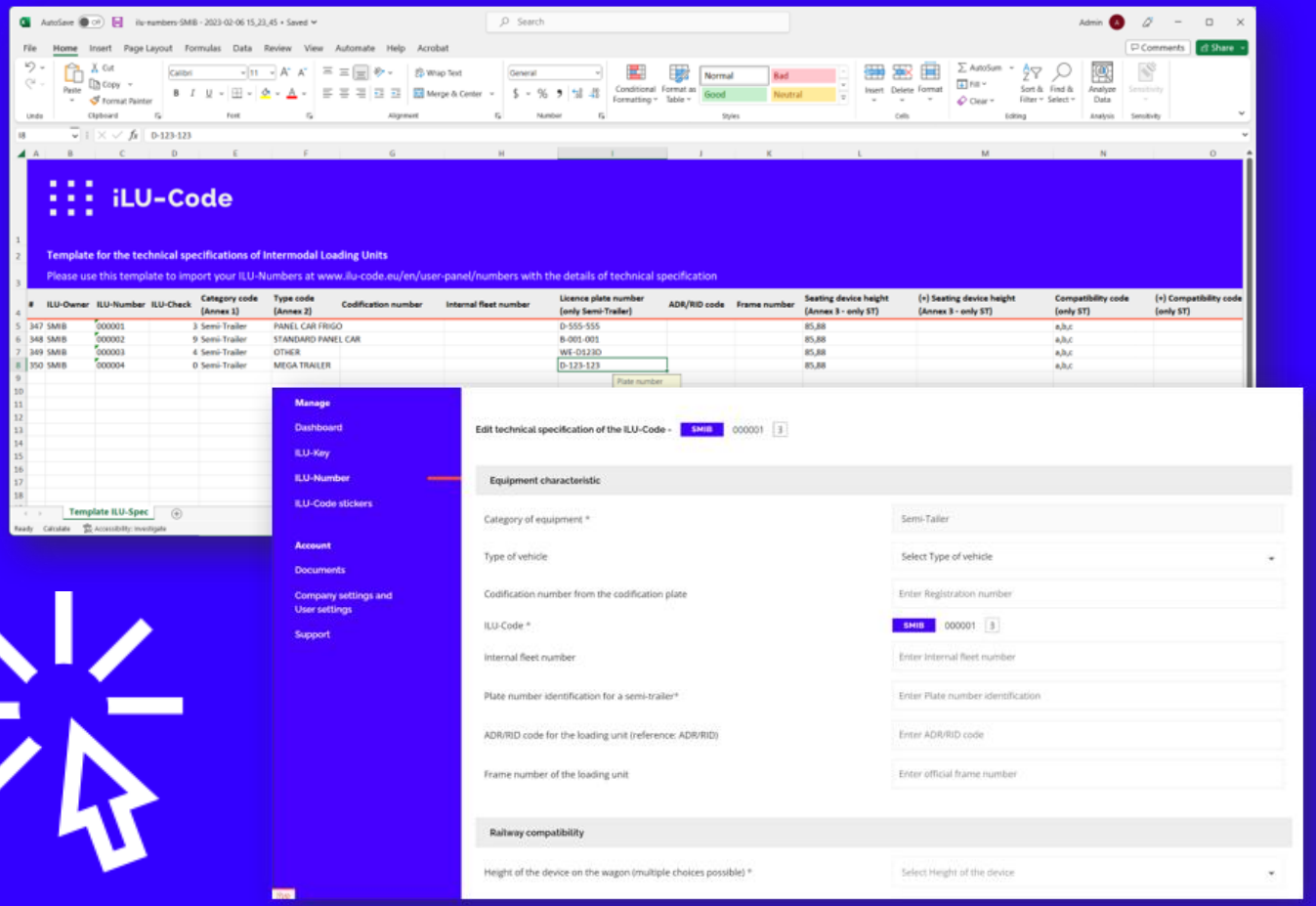
Technical ILU-Register

- TSI Telematics mandatory new reference file
- List of parameters per category of equipment (swap body, semi-trailer, tank container)
- Details ralated to: equipment details, railway compatibility, weights and dimensions
- Mandatory / optional fields with validation
- Comparison with the ISO-related BOXTech register
- Manual encoding & bulk upload possible



Further plans for ILU-Register

- Facilitation of the bulk upload for online interface and excel import
- Integration of API providing external data (video gates, CT operators IT systems
- Separate interface with the ILU-Register allowing search queries defined in TSI ERA Technical Documents



Conclusions:

- ILU-Code ensures safety and interoperability across Europe
- Digital transformation enhances logistics efficiency
- Future-ready technology prepares for upcoming regulations.

Conclusions

by Ralf-Charley Schultze – Director General UIRR

Disclaimer
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EDICT

Thank you for your attention

Co-funded by the European Union