DEDICATED TAF (AND TAP RU/IM COMMUNICATIONS) SESSION

TOWARDS AN EFFECTIVE DIGITAL TRANSFORMATION IN COMBINED TRANSPORT

21/09/2022

UIRR: **the industry association of Combined Transport**

The **CT ecosystem** and key stakeholders

① Key Stakeholders (inkl. staff)	Shipper	LSP	Terminals	CT Operator	Rail infrastruct.	RUs	Waggon Keeper	Receiver	Authorities
② Physical Systems	Goods	Load	Load	Load	Infrastruct.	Rail Traction	Wagon	Goods	Regulation
Documents/ Identifiers	Contract	Transport Order	ILU#	ILU#	Train#	Train#	ID#	Transport Order	Customs Etc.

③ IT Systems — Planning, Booking, Execution

Legend: ▮ IT Activity

Selected **key drivers** for CT digitalisation

New Entrants increase logistics footprint
(e.g. **amazon**)

Customers expect high
reliability & valid information
(e.g. ETA, booking)

Combined Transport

Shippers use advanced software
to perform 3PL's tasks
(e.g. **BOSCH** , Unilever , BMW)

Regulators push digitalization
(e.g. TAF – TSI, RFC, TEN-T,
eFTI, digital market)

Improved communication &
information richness
(e.g. **5G** , INTERNET of THINGS)
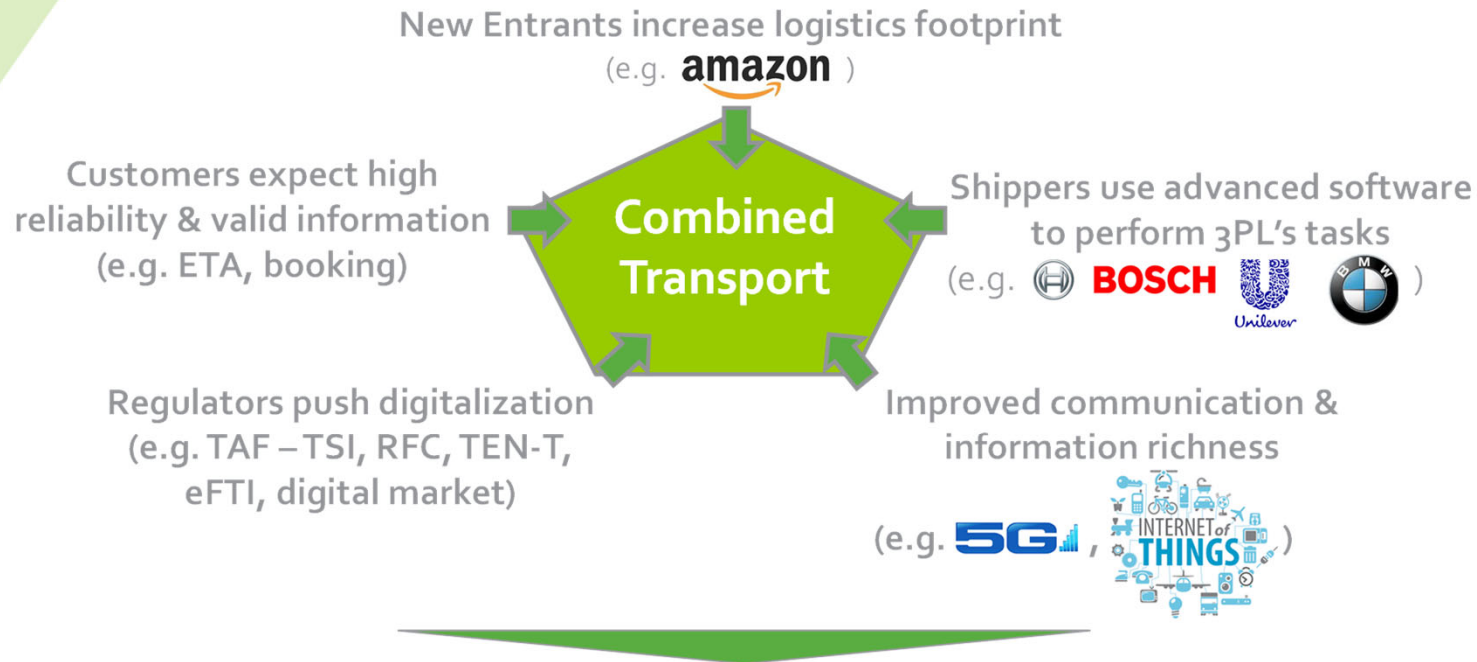
All these drivers will lead to a "perfect storm" of changes on the CT ecosystem in the future with 'data' as 'the new oil' for the future CT ecosystem. This will generate major (mental) shifts for the industry, logistics and regulatory environment.

An **enhanced digital vision** for Road-Rail CT
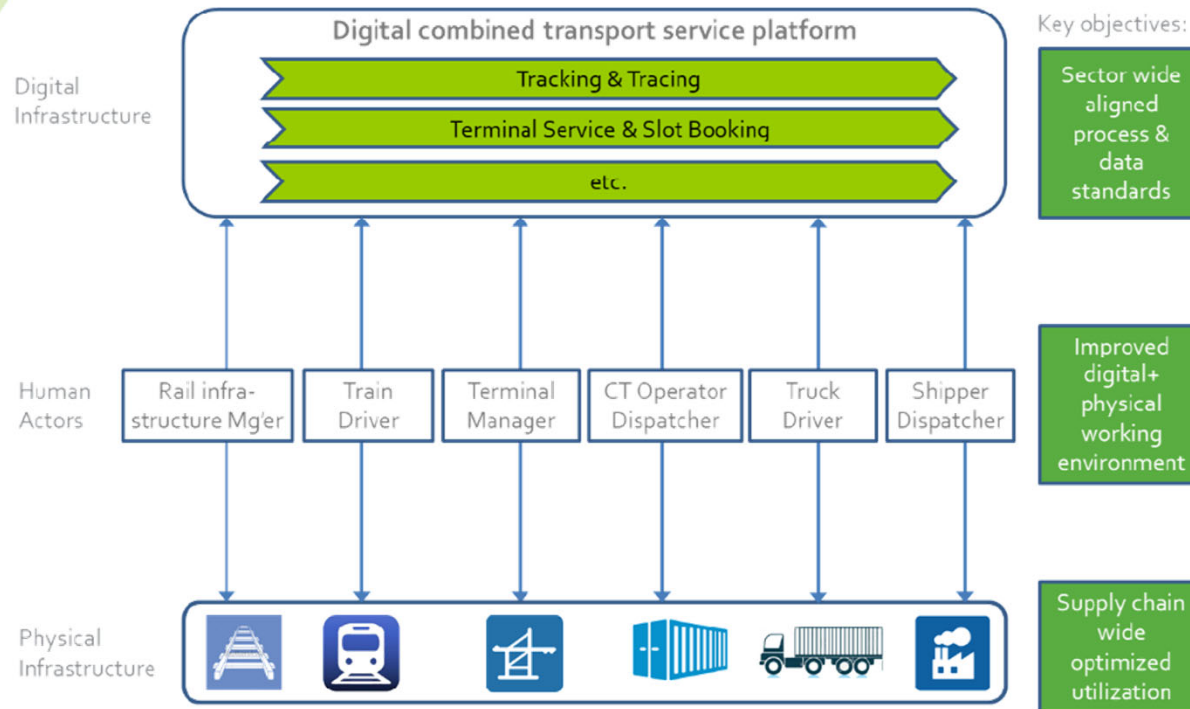
The CT sector's vision: from a 'road-rail freight transport' service provider to an 'integrated collaborative transport' service provider for the logistics supply chain.
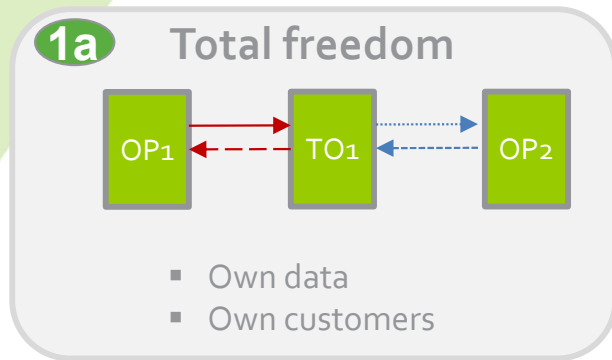
Roadmap for CT digitalisation is ready: **needs are identified**
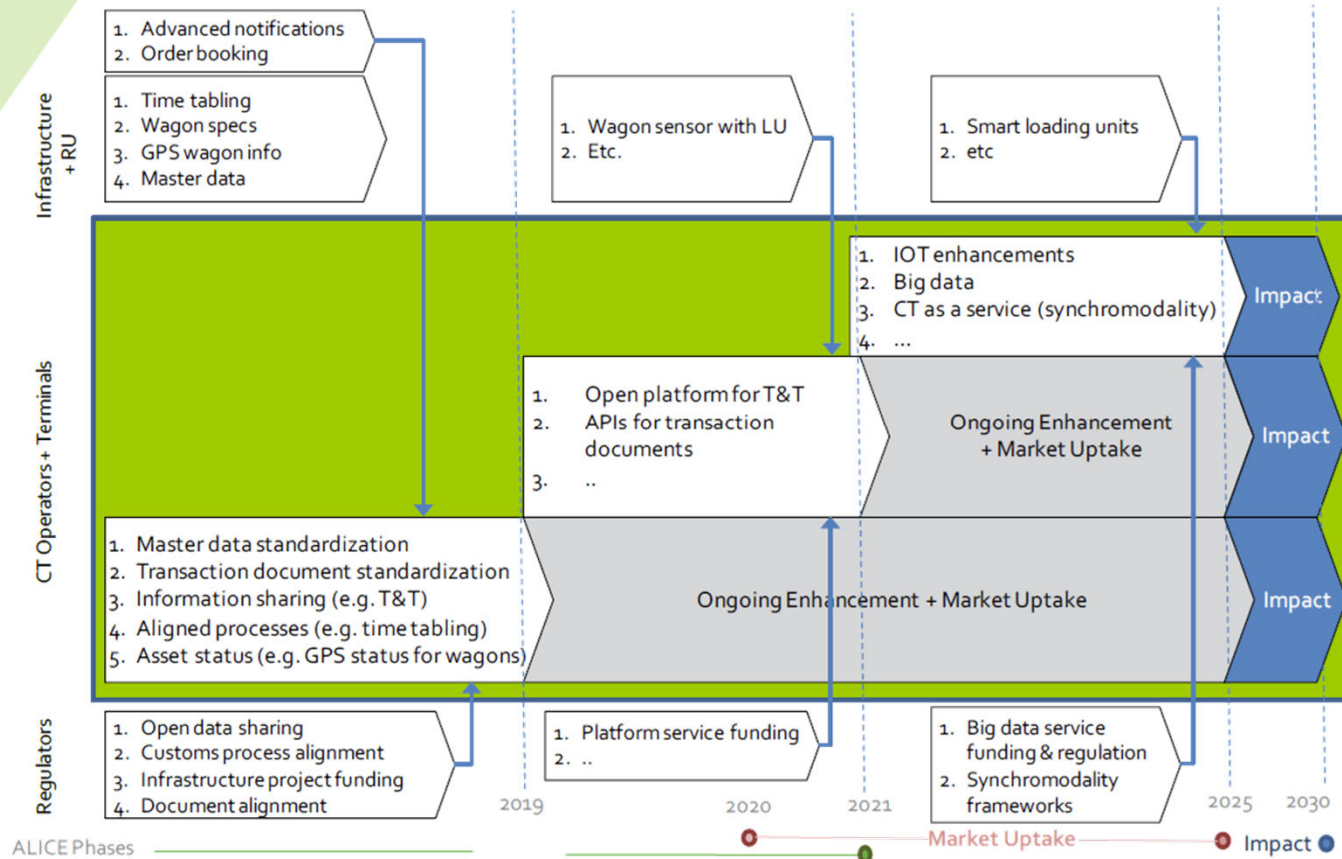
Possible approaches and alignment needs

Legend: TO = Terminal Operator; OP = CT Operator

UIRR digital efforts

1a Total freedom

OP₁ → TO₁ ⇄ OP₂

- Own data
- Own customers

No concerted action with a maximum of freedom

- Tracking information exchange w/o standardization (status/interfaces)
- Individualized booking processes

1b Common standards

OP₁ → TO₁ → OP₂

- Own data
- Own customers
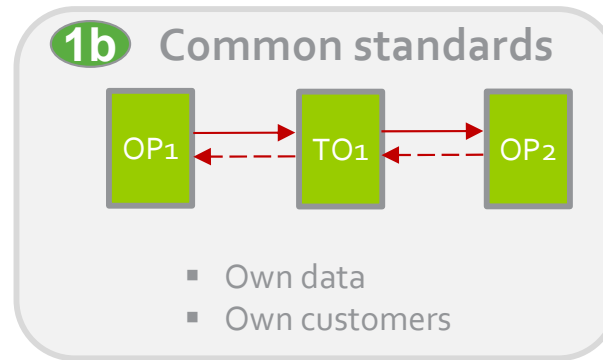
Definition of standards and lose coupling for each actor

- Master data standards
- Transaction data standards
- Documents standards
- Standard protocols

2 Common Platform

Shared Process + IT

OP₁   TO₁   OP₂

- Own data
- Own customers
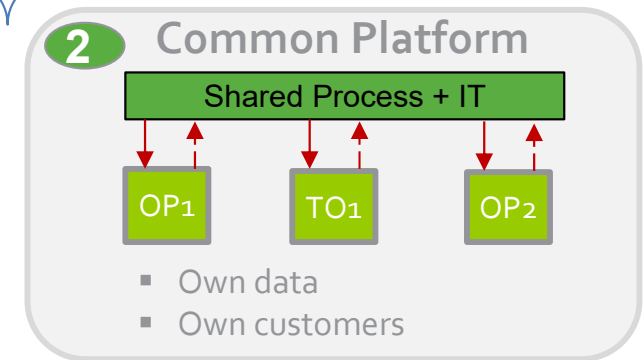
Platform approach for central tasks

UIRR digital **successful implementation (1)**

ELETA project – sharing of train tracking and ETA in CT

- Computation of ETAs based on smart algorithms
- Testing and validation of the computed ETAs on various selected routes
- Easier access to train running information for terminal operators and CTOs thanks to Improved collaboration between the CT stakeholders
- Demonstration of the practical value of streamlining exchange of ETA data on various routes
- Harmonisation of definitions, terms and messages related to ETAs
- Adaptation of the TAF TSI Regulation
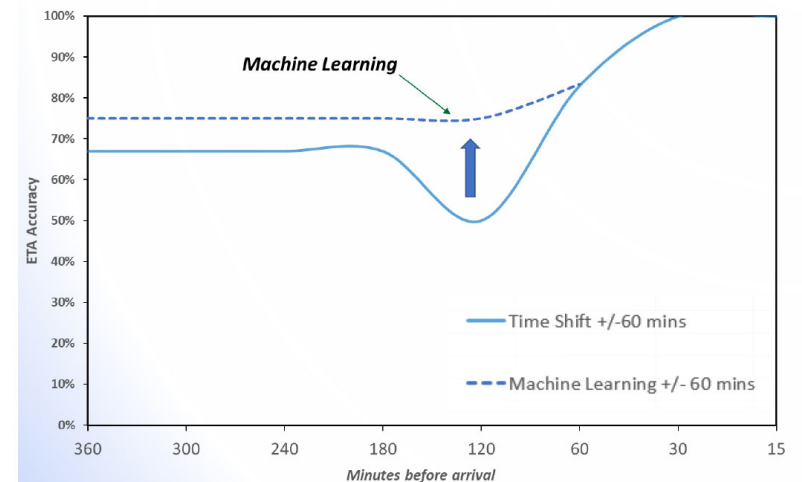
UIRR digital **successful implementation (2)**

Digital Train 1.0 and 2.0 (relevant for CT)

- Extensive tests of smart ETAs on various relations
- Significant improvement of the accuracy of the ETAs (over 95%)
- Terminal integration into RNE TIS
- Adaptation of the TAF TSI Regulation with a new annex on ETA and adaptations of the TAF TSI sector handbook
- Adaptations of the RNE TIS application to accommodate the various computed ETAs
- Feasibility study for a QMS in Combined Transport
- Exchange of train composition messages (improved mapping train running information in cross-border traffic)

The user has access to
- ETA information
- ETA from different sources
- ETA predicted by AI algorytms
- ETA with accuracy indicator
- ETA via simple web-access
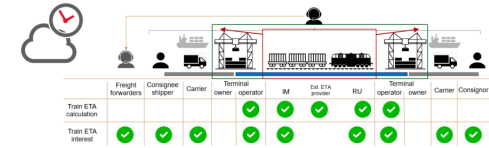
Enhanced ETA brings:
- More transparency and trust to
  - Railway transport
  - the whole logistic chain
- Better resource management
- Better traffic and capacity management
- Contribution to the goods delivery forecasting

The user can:
- Get access by addressing the RNE TIS team – support.tis@rne.eu
- Select the best ETA
- Compare the ETA providers
- Estimate the train position on the remaining path part
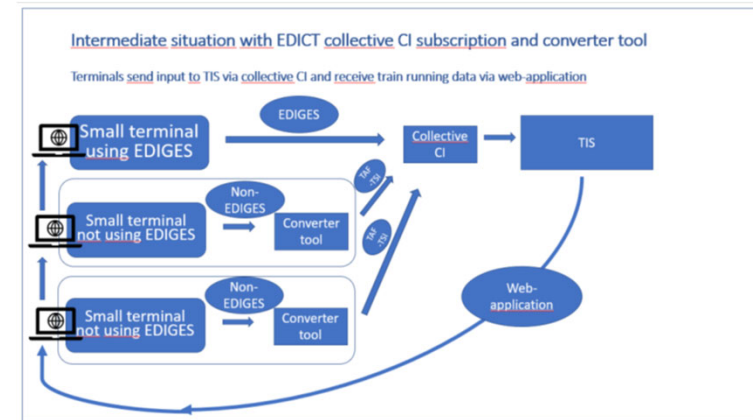- Organise activities during the train run and at the destination

UIRR digital ongoing **initiatives**

EDICT project

EDICT

- Improve data sharing in the CT ecosystem
- Better identification of the CT stakeholders
- Easier terminal data exchange based on TAF TSI requirements
- Support the TAF TSI Master Plan for Terminals
- Design and development of a QMS for Combined Transport (Q-ELETA)
- Creation of reference files for the sector
- Improvement of interfaces and digital platforms (CESAR application)
- Promotion of a European Data Hub for Combined Transport (link to KV4.0)
- Dissemination of a European data exchange format for Combined Transport (EDIGES)

Intermediate situation with EDICT collective CI subscription and converter tool

Terminals send input to TIS via collective CI and receive train running data via web-application

Q-ELETA: a quality management tool
development of a best practice guideline on quality monitoring

External circumstances

- **Universal KPI:** the railway sector, as a convoy, moves with the speed of its slowest member, hence any universal solution will necessarily lack ambition.
- **Blaming and shaming:** the railway sector, still dominated by state owned companies (IMs and RUs), is not always open and ready for transparency and benchmarking.

The proposed solution

- **Bottom-up approach:** if a universal KPI cannot be developed then best practice should be established from the bottom-up building on the progressive attitudes of the leading actors in the sector.
- **Clairvoyance:** an undisputed set of data is needed covering each operational and administrative step of the production process of a particular freight train to serve as a basis for effective management intervention.
- **Need-to-know:** the train-specific dataset will be created based on the voluntary commitment of every actor involved with the production of a particular train – in line with the Q-ELETA best practice guideline (BPG), to be made available only to the actors involved.
- **Quality meeting:** a methodology on how to evaluate the dataset will make the Q-ELETA BPG complete.

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THANK YOU

for your attention

21/09/2022