Telematic Applications for Freight (TAF TSI)

UNESCAP High-level Expert Group Meeting on the Harmonization of the Rules and Regulations for Facilitation of International Railway Transport

Ankara (Turkey), 03 - 04 May 2018
A full package of products

- Legislative text
- Standard setting and maintenance
- Implementation monitoring
- IT implementers and users’ community

TAF TSI
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TAF TSI
European Union Agency for Railways « to make the railway system work better for society »

European Union Agency for Railways – Institution of the EU
TAF TSI

Railway Undertaking - Infrastructure Manager communication

Railway Undertaking:
- Path Request
- Train Preparation
- Train Running Forecast
- Service Disruption Information
- Train Location
- Interchange Reporting
- Data Exchange for Quality Improvement

Infrastr. Manager:
- Path Request
- Train Preparation
- Train Running Forecast
- Service Disruption Information
- Train Location
- Interchange Reporting
- Data Exchange for Quality Improvement

Railway Undertaking function

Same as “Railway Undertaking - Infrastructure Manager communication”

+ Consignment Note data
- Shipment Estimated Time of Interchange / Arrival
- Wagon Movement

Wagon keeper function

Rolling Stock Reference Databases

Common Components for TAF TSI

Implementation

Monitoring

N° 5

TAF TSI process

Planning…
- Consignment Note
- Wagon trip plan
- Path Request
- Train Preparation
- Train Running Forecast
- Wagon Movement

Operation…
- Price and transit times
- Open Access
- One Stop Shop
- Train Composition
- Train ready
- Train Running and forecast
- Service Disruption
- Estimated Time of Arrival (ETA) or of Interchange (ETI)
- Wagon events

After…
- Wagon loads
- Wagon release
- Wagon status and location
- To improve the quality and productivity

TAF TSI published on EU Journal: COMMISSION REGULATION (EU) No 1305/2014
• Chapter 1.3 of TAF TSI: **Infrastructure Managers and Railway Undertakings**, **Wagon Keepers**, but also intermodal operators ...

and even freight Customers (shippers, consignors of goods, forwarders etc.)
• Alleviate non-physical barriers allowing the adoption and Implementation of **inter-operable IT systems in Trade & Transport**.

• Adoption of **inter-connected IT systems** in transit operations.

• Development – EU Rail Freight Corridors.

• **Open Source !**
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TAF TSI
Structure of TAF TSI – RU/IM-communication (example)
## Appendix I – Technical Documents

### List of technical documents

<table>
<thead>
<tr>
<th>No</th>
<th>Reference</th>
<th>Title</th>
<th>Version</th>
<th>Date</th>
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TAF TSI
Expected benefits for Railway Companies:

• 1 single communication system for all business cases an operator can find -> **Economies of Scale**.
• Improved communication between neighboring RUs (in terms of quality and speed) -> **Process Coordination**.
• 1 single standardized way of working, providing cost savings through better management quality system; establishment of homogeneous procedures; **Reduction in system maintenance costs**.
• **Standardized and Interoperable** communication interfaces.
• Participants can join a **strong and committed TAF Users’ Community**.

Regarding the value chain passengers / freight customers:

• Access to more transparent railway products -> **more efficient**.
• Monitoring becomes more transparent -> **no "black box"**.
• **Quicker and better information delivery** to freight customers and business partners.
Implementation TAF Masterplan

Reference files population
Common interface implementation
RSRD
WIMO
Wagon movement
Short term PR
Train Run
Consignment Data
Train Composition
Train Ready
Service Disruption
Shipment ETA
TID final

Train Running Information function

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TAF TSI
TAF TSI in numbers

- **Freight company codes**
  - Number of companies: 328

- **Train running information**
  - Countries covered: 22
  - Number of trains processed: 1,600,000 per year
  - Number of messages exchanged: 163,000,000 per year

- **Consignment notes + Wagon event reporting**
  - Number of companies: 16
  - 2,500,000 consignment note messages per year
  - 144,000,000 train run messages per year

- **Path request**
  - Countries covered: 30
  - Number of companies: 166 RUs and 35 IMs
  - Number of messages exchanged: 2,600 path dossiers per year
Available TAF TSI IT implementations

- **RNE**
  - PCS ([http://pcs.rne.eu/](http://pcs.rne.eu/)) - path request

- **Raildata**
  - ORFEUS ([http://www.raildata.coop/ORFEUS.htm](http://www.raildata.coop/ORFEUS.htm)) – eConsignment note
  - ISR ([http://www.raildata.coop/ISR.htm](http://www.raildata.coop/ISR.htm)) - wagon movement

- **UIP**
  - RSRD² ([https://www.rsrdd.eu](https://www.rsrdd.eu)) – rolling stock reference data

- **HitRail**
  - [http://interopability.hitrail.com](http://interopability.hitrail.com) – path request + train running

- **UNIFE**
• Communication « Peer to peer » IP network - Central Repository and an individual Common Interface (CI)
Useful Links!


The European Union Agency for Railways proposes for deeper synergies between the UN ESCAP and itself following work items:

- Study of similarities and non-similarities in rail freight telematics between the geographical areas of UN ESCAP and the EU
- Based on findings of above study: create a feasibility study for implementation of rail freight telematics in UN ESCAP countries
- Based on findings of above feasibility study: elaborate business and implementation plan for implementation of rail freight telematics (estimations, governance, techs)
Thank you very much

European Union Agency for Railways

Kornél NAGY

– Email: kornel.nagy@era.europa.eu
  TAF_TSI@era.europa.eu
– Tel: +33 6 64300237
– Address: 120 rue Marc Lefrancq, F-59300 Valenciennes, France
Making the railway system work better for society.

Follow us on Twitter: @ERA_railways
Back-Up Slides
## Useful terms from this presentation

<table>
<thead>
<tr>
<th>Abbreviation / term</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>RU</td>
<td>Railway Undertaking</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>IM</td>
<td>Infrastructure Manager</td>
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<tr>
<td>IP</td>
<td>Internet Protocol</td>
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<tr>
<td>RNE</td>
<td>Rail Net Europe</td>
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<tr>
<td>TID</td>
<td>Train Identifier</td>
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<td>UIP</td>
<td>International Union of Wagon Keepers</td>
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<tr>
<td>UNIFE</td>
<td>European Association of Rail Supply Industry</td>
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<tr>
<td>WIMO</td>
<td>Wagon and Intermodal Unit Operational Database</td>
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<tr>
<td>WK</td>
<td>Wagon keepers</td>
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