Telematic Applications for Freight (TAF TSI)

OSJD - UNESCAP Regional Meeting on Harmonization of Rules and Regulations for Facilitation of International Railway Transport

Astana (Kazakhstan), 20-21 December 2017
A full package of products

- Legislative text
- Standard setting and maintenance
- Implementation monitoring
- IT implementers and users’ community
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European Union Agency for Railways
« to make the railway system work better for society »

**Strategic Priorities**

1. Regulatory framework harmonized for Safety
2. Simplified Vehicle Authorisation
3. Only 1 Train Control System in EU
4. Simplified Access for Customers

**Agency Actions**
(against Annual Programming Document)

- **Development**
  - Interoperability Rules *
  - Common Safety Methods
  - Databases and Registers

- **Monitoring / Review**
- **Facilitate / Dissemination**

**Clients / Stakeholders**

- EC + DG MOVE
- Member States/ RISC
- European Parliament
- Railway Undertakings (RU)
- Infrastructure Managers (IM)
- Wagon Keepers (WK)
- Manufacturers
- National Safety Authorities
- National Investigation Bodies

*T S I
TAF TSI

Railway Undertaking - Infrastructure Manager communication

- 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
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** (REBIS report).

• **Simplified Custom Procedures** with EU partners.

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

• **Development – EU Rail Freight Corridors.**
TAF TSI – Communication RU-IM

- Exchange of data (process & protocol) between Railway Undertaking (RU) and Infrastructure Manager (IM):
  - Path Request
  - Train Preparation
  - Train Running Forecast
  - Service Disruption Information
  - Data exchange for
  - Quality Improvement
TAF TSI – Exchange of Data RU – RU (Railway Undertaking)

- Consignment Note Data, Shipment ETI/ETA, Wagon Movement and Interchange Reporting
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TAF TSI
Structure of TAF TSI – RU/IM-communication (example)

TAF TSI → Activity Area → TSI Ch. → Technical Document

- RU/IM communication
  - Train Ready reporting → 4.2.14
  - Train Running reporting → 4.2.15
  - Train Forecast reporting → 4.2.15
  - Train Interruption reporting → 4.2.16
  - Short Term Timetable → 4.2.17

TAF TSI - ANNEX D.2: APPENDIX F - TAF TSI DATA AND MESSAGE MODEL
# Appendix I – Technical Documents

## List of technical documents

<table>
<thead>
<tr>
<th>No</th>
<th>Reference</th>
<th>Title</th>
<th>Version</th>
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TAF TSI
Expected Benefits!

Expected benefits for Railway Companies:

• 1 single communication system for all business cases an operator can find -> **Economies of Scale**.
• Improved communication between RU and IM (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

Years: 2010 to 2026
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: 2600 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
Architecture to Exchange Data?

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

Thank you very much

European Union Agency for Railways

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Making the railway system work better for society.

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

<table>
<thead>
<tr>
<th>Abbreviation / term</th>
<th>Meaning</th>
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<tr>
<td>RU</td>
<td>Railway Undertaking</td>
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<tr>
<td>EC</td>
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<td>EU</td>
<td>European Union</td>
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<td>IM</td>
<td>Infrastructure Manager</td>
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<td>IP</td>
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<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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<td>WK</td>
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