TAF/TAP information day

Telematic Applications for Freight (TAF)
Telematic Applications for Passengers (TAP)

ERA Telematics Team
The “jargon” used in this PPT

<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<td>ERA</td>
<td>European Union Agency for Railways</td>
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<td>IM</td>
<td>Infrastructure Manager</td>
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<td>PRM</td>
<td>Passengers with Reduced Mobility</td>
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<td>RU</td>
<td>Railway Undertaking</td>
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<td>TAF</td>
<td>Telematics Applications for Freight</td>
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<tr>
<td>TAP</td>
<td>Telematics Applications for Passengers</td>
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<tr>
<td>TSI</td>
<td>Technical Specifications for Interoperability</td>
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<tr>
<td>TD</td>
<td>Technical Document of ERA</td>
</tr>
<tr>
<td>CEN</td>
<td>European Committee for standardization</td>
</tr>
<tr>
<td>CCM</td>
<td>Change Control Management of the Technical Documents</td>
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</table>
European Union Agency for Railways

- Established in 2004 (EC Regulation 881/2004)
- Located in Valenciennes and Lille

ERA is a EU institution:

Main tasks of ERA:

- address recommendations for European Rail Legislation (with economic evaluation and justification) to the European Commission concerning Safety, ERTMS, Cross-acceptance and Interoperability
- issue opinions to the European Commission (or to National safety authorities) concerning rail National safety rules, Interoperability of the trans-European rail network and Monitoring the work of notified bodies
- maintenance of some public rail related databases
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)
Manufacturers

National Safety Authorities
National Investigation Bodies

* TSI
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.
Expected Benefits for IMs:

• **Increase** of rail capacity ->
• Replacement of manual work and support ->
  - Better incident management (service disruption).
  - Improvement in terminal operations such as shunting and intermodal operations.
  - Reduction of Operational Costs.

Expected Benefits for RUs:

• **Long Term Savings**.
• In personnel: replacement of manual work, paperless communication and automated processes, availability of registers.
• More effective processes:
  - the composition of trains can be **planned in advance**
  - dead loss time in operations decrease,
  - savings in working time as paperless documents are input only once -> improvement of data validity and quality.
• Better user information and access to passenger rail services for customers:
• To have access all up-to-date pre-trip information (timetable and tariff data)
• To have access to rail tickets, preferably EU-wide
• To have access to all during-the-trip data (e.g. next connections, delays, rerouting)

• Through:
  – Standardised interfaces between railway undertakings/infrastructure managers
  – interfaces between the different subsystems (e.g. timetable, delay information) are standardised and available for the public
  – can be re-used by other modes of transport
  – improved data quality
  – data quality is a requirement for the data delivery (e.g. for timetable data, tariff data)
  – Timeliness of data is a requirement
TAF/TAP legal basis
COMMISSION REGULATION (EU) No 454/2011 of 5 May 2011 on the technical specification for interoperability relating to the subsystem ‘telematics applications for passenger services’ of the trans-European rail system
The TAP TSI is based on the following European legal documents:


  (a) applications for passenger services, including systems providing passengers with information before and during the journey, reservation and payment systems, luggage management and management of connections between trains and with other modes of transport;


Above documents are publicly available at the EU web site:
Passenger rights regulation EC/1371/2007 – Annex II:

– **Part I: Pre-journey information**
– General conditions applicable to the contract
– Time schedules and conditions for the fastest trip
– Time schedules and conditions for the lowest fares
– Accessibility, access conditions and availability on board of facilities for disabled persons and persons with reduced mobility
– Accessibility and access conditions for bicycles
– Availability of seats in smoking and non-smoking, first and second class as well as couchettes and sleeping carriages
– Any activities likely to disrupt or delay services
– Availability of on-board services
– Procedures for reclaiming lost luggage
– Procedures for the submission of complaints.

– **Part II: Information during the journey**
– On-board services
– Next station
– Delays
– Main connecting services
– Security and safety issues.
TAF/TAP & 4th Railway Package

- New Legal Framework.....New Role!! -> System Authority!!
Article 23 - Telematics applications (*)

1. The Agency shall act as the system authority to ensure the coordinated development of telematics applications in the Union, in accordance with relevant TSIs. To that end, the Agency shall maintain, monitor and manage the corresponding subsystems requirements.

2. The Agency shall define, publish and apply the procedure for managing requests for changes to specifications for telematics applications. To that end, the Agency shall set up, maintain and update a register of requests for changes to such specifications and their status, accompanied by the relevant justifications.

3. The Agency shall develop and maintain the technical tools for managing the different versions of specifications for telematics applications and endeavour to ensure backward compatibility.

4. The Agency shall assist the Commission in the monitoring of deployment of specifications for telematics applications in accordance with relevant TSIs.

TAF INTRODUCTION
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

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 TAF TSI elements

Implementation

Reporting
TAF TSI published on EU Journal: COMMISSION REGULATION (EU) No 1305/2014
Chapter 1.3 of TAF TSI: ... In this respect the term **users means not only infrastructure managers or railway undertakings** but also all other service providers such as wagon companies, intermodal operators and even customers...

- Alleviate non-physical barriers allowing the adoption and Implementation of **inter-operable IT systems in Trade & Transport**
- **Simplified Custom Procedures** with EU partners.
- Adoption of inter-connected IT systems in transit operations.
- **Development – EU Rail Freight Corridors.**
• 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

[Diagram showing the exchange of data between Wagon Keepers & Clients, LRU’s (1, 2, ..N), RU 1, RU 2, and RU N]
Databases to be deployed by RU, IM, Wagon Keepers or Customers:

• Rolling Stock Reference Data-bases (RSRD).

• Wagon and Intermodal Operational Unit Database (WIMO).

• Wagon Trip Plan Databases.

• Reference Files:
  ▪ **Centrally stored and administrated:** (Coding for all IMs, RUs, Service provider companies; Coding for Freight Transport Customers; Coding of Locations (Primary and subsidiary),

  ▪ **Locally stored and administrated:** Reference File of the emergency services, correlated to type of hazardous goods.
Architecture to Exchange Data?

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

Railway Undertakings:
- Consignment Note data
- Path Request
- Train Preparation
- Train Running Forecast
- Service Disruption Information
- Train Location
- Shipment Estimated Time of Interchange / Arrival
- Wagon Movement
- Interchange Reporting
- Data Exchange for Quality Improvement

Infrastructure Managers:
- Path Request
- Train Preparation
- Train Running Forecast
- Service Disruption Information
- Interchange Reporting
- Data Exchange for Quality Improvement

Own Developments fulfilling TAF TSI Technical Requirements are Possible !!!

Wagon Keepers:
- Rolling Stock Reference Databases

Rail Freight Customers
**Tillägg I**

Förteckning över tekniska dokument

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<th>Version</th>
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<td>1</td>
<td>ERA-TD-100</td>
<td>TSD:n avseende delsystemet Telematikapplikationer för godstrafik – BILAGA A.5: SIFFROR OCH SEKVENSDIAGRAM I TSD TAF-MEDDELANDEN</td>
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<td>17.10.2013</td>
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</table>
TAP TSI BASIC MAIN CONTENT
Rail distribution process

Before …

- Timetable information
- Tariff information
- Availability and booking
- Ticketing
- Journey-information

During …

- Issuing of tickets
- Information about connecting services, delays

After …

- Handling of customer complaints

TAP TSI published on EU Journal: COMMISSION REGULATION (EU) No 454/2011
The Technical Specification for Interoperability on “Telematics Applications for Passengers” (TAP TSI) prescribes protocols for the data exchange of

- timetables,
- tariffs,
- reservations, fulfillment
- Information to passengers in station and vehicle area
- train running information,
- etc.

which must be respected by the European rail sector (railways, infrastructure managers, ticket vendors etc) according to the European Rail Passengers’ Rights Regulation EC/1371/2007 and to the Interoperability Directive EC/2008/57.
Structure:

• Scope
• Definition of subsystem/scope
• Essential requirements
• **Characterisation of subsystem**
  – Retail basic parameters
  – Basis parameters for the communication between railway undertaking and infrastructure manager
• Interoperability constituents
• Assessment of conformity and/or suitability for use of the constituents and verification of the subsystem
• **Implementation** (including Change Control Management)

• **Technical Documents (in Annex)**
• Technical scope:
  • This Technical Specification for Interoperability (hereinafter referred to as the TSI) concerns the element ‘applications for passenger services’ of the subsystem ‘telematics applications’ of the trans-European rail system referred to in Article 6(1) of Directive 2008/57/EC. It is included in the functional area of the list in Annex II to Directive 2008/57/EC.

• Geographical scope:
  • The geographical scope of this TSI is the trans-European rail system as defined in Article 2(a) of Directive 2008/57/EC.
  • it applies also to the EU-1520 mm network
Definition of subsystem/technical scope

• “the functional subsystem ‘Telematics applications for passenger services’” for the information provision towards the passengers
• “the part of the maintenance subsystem relating to the telematics applications for passenger services” for the maintenance of the passenger information systems (i.e. methods of use, management, updating and maintenance of databases, software and data communication protocols, etc.).
• It includes the provision of information on the following aspects:
  – systems providing passengers with information before and during the journey;
  – reservation and payment systems;
  – luggage management;
  – issuing of tickets via ticket offices or ticket selling machines or telephone or Internet, or any other widely available information technology, and on board trains;
  – management of connections between trains and with other modes of transport.
TAP TSI *retail* basic parameters for passenger information, ticketing

- 4.2.1. Exchange of timetable data
- 4.2.2. Exchange of tariff data
- 4.2.3. Handling of information on contact details of the railway undertaking
- 4.2.4. Handling of information concerning conditions of carriage
- 4.2.5. Handling of information concerning carriage of registered luggage
- 4.2.6. Handling of information concerning carriage and assistance of persons with reduced mobility (PRM)
- 4.2.7. Handling of information concerning the carriage of bicycles
- 4.2.8. Handling of information concerning the carriage of cars
- 4.2.9. Handling of availability/reservation
- 4.2.10. Handling of security elements for product distribution
  - Open point
- 4.2.11. Delivery of the product to the customer after its purchase (fulfilment)
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TAP TSI communication between RU/IM basic parameters

- 4.2.12. Handling of information provision in the station area
- 4.2.13. Handling of information provision in the vehicle area
- 4.2.14. Train preparation
- 4.2.15. Train running information and forecast
- 4.2.16. Service disruption information
- 4.2.17. Handling of short term timetable data for trains
Structure of TAP TSI – RU/IM-communication

- **RU/IM communication**
  - Train Ready reporting
  - Train Running reporting
  - Train Forecast reporting
  - Train Interruption reporting
  - Short Term Timetable

- **Activity Area**
  - TSI Ch.

- **T.D.**

- **TAF TSI**

  - B.30

- **TAF TSI - ANNEX D.2: APPENDIX F - TAF TSI DATA AND MESSAGE MODEL**

- **CCM**
Technical Documents of TAP TSI

• The technical aspects of the TSI’s can be defined in technical documents annexed to the TSI, thus legally binding

• In Dec 2009 ERA has signed contract with UIC according to which UIC has transferred some UIC leaflets as ERA Technical Document B.1, B.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9, B.10 and B.30.

• All Technical Documents are publicly available at ERA’s website at http://www.era.europa.eu/Document-Register/Pages/TAP-TSI.aspx
Technical Documents of TAP TSI - CCM

- For the purpose of the Technical Documents ERA runs a dedicated CCM WP which produces CCM baselines (see chapter 7.5 of TAP TSI).
• In order to ensure that there will be no gap in the future between UIC leaflets and corresponding ERA TDs UIC and ERA have conclude 2014 a TA.
• The scope of this Agreement is limited to the corresponding parts (“CPs”) which are those parts of the UIC Leaflets with corresponding content within the ERA technical documents.
• Both of the Parties agree to maintain identical text describing the CP in accordance with this Agreement for those parts of UIC leaflets which are included in TDs.
• If there is change in UIC leaflet >> CR for ERA TD must be submitted. >> ERA CR lifecycle >> update of UIC leaflet.
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<td>B.2 - Computer generation and exchange of tariff data meant for international and foreign</td>
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<td>B.8 - Standard numerical coding for railway undertakings, infrastructure managers</td>
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<tr>
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<td>B.9 - Standard numerical coding of location</td>
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<td>messages</td>
<td></td>
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TAP TSI RETAIL BASIC PARAMETER
BP 4.2.1. Exchange of timetable data

• **Purpose:**
• Exchange of timetable data
• **Conditions:**
  – Annual timetable must be published at least two months before entering into force
  – Timetable changes must be published at least 7 days in advance
• **How:**
  – File in EDIFACT-format (technical document B.4)
BP 4.2.1. Exchange of timetable data: Example

- Example:

PRD+00090::37::Vauban+0083**0085’
POP+273:2003-12-15/2003-12-20::111111’
PDT++:::50’
SER+9’

POR+008301700:37:12+*0810’
POR+008507000:37:12+1156*1204’
POR+008721202:37:12+1444*1446’
POR+008200100:37:12+1650’

ODI+008507000*008200100+2*4’
SER+26’

EC 90 provides a restaurant (code 9).

The train runs from MILANO (008301700) via BERN (008507000) and STRASBOURG (008721202) to LUXEMBOURG (008200100).

Bicycle transport (code 26) is available only from BERN (stop index 2) to LUXEMBOURG (stop index 4).
Purpose:
Exchange of tariff data

Conditions:
- RU’s shall provide their tariff data to other RU’s, third parties according to distribution agreements between them
- tariffs must be published to authorized public bodies

How:
- distance based fares based (B.1)
- yield-managed fares (B.2)
- reduction cards, supplements and special offers (B.3)
BP 4.2.2. Exchange of tariff data - Example

Example:

<table>
<thead>
<tr>
<th>RU</th>
<th>Series N°</th>
<th>Origin</th>
<th>Destination</th>
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<tr>
<td></td>
<td>1181023990300123600</td>
<td>Feldkirch</td>
<td>00317600 Flugh. Graz-Feld. 010000</td>
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</table>

0 0 0<1181>Zell/See*Trieben*Bruck/Mur

via with carrier code

0006160006160101001000000000000000000011451001637100315810

Km in 2nd class fare table N°

00000000000000200912100120991231

Validity period
BP 4.2.3. Handling of information on contact details of the railway undertaking

• This basic parameter lays down how the railway undertaking shall provide information about its official website from which customers can obtain accurate information.

• The railway undertaking shall make available to other railway undertakings, to the Agency, to third parties and to public bodies a dataset that includes its carrier name, carrier code and its official website. The official website referred to in this basic parameter shall be machine readable and compliant with web content accessibility guidelines. If a railway undertaking operates a joint business unit with (an)other railway undertaking(s), the name of the joint business unit, carrier codes and official website shall be made available to the other railway undertakings.

• When a railway undertaking makes its timetable information available to other railway undertakings pursuant to Section 4.2.1.1, it shall ensure that the carrier name in the timetable delivery has a corresponding carrier name in this dataset. If changes have occurred, the railway undertaking shall update the content of the dataset as soon as possible.
BP 4.2.4. Handling of information concerning conditions of carriage

• This basic parameter shall ensure that conditions of carriage are available on the official website of the railway undertaking.
• The provisions of this basic parameter shall apply to the passenger services of the railway undertaking.
• The railway undertaking shall publish information relating to:
  • general conditions of carriage for rail passengers (GCC-CIV/PRR),
  • its own conditions of carriage,
  • a link to Regulation (EC) No 1371/2007 of 23 October 2007 on rail passengers’ rights and obligations,
  • the accepted means of payment,
  • sales and after-sales conditions, especially for the exchange and reimbursement of tickets,
  • procedures for the submission of complaints,
  • at least on its official website. This website shall comply with web content accessibility guidelines which take into account the needs of people with auditory and/or visual impairment.
• This process shall be performed for the first publication not later than 6 months after this TSI comes into force. Changes to this information shall be published at least 6 days before they enter into force. The railway undertaking shall list the articles which have been changed compared to the previous version. On each such occasion the railway undertaking shall maintain the earlier version of this information on its official website.
BP 4.2.5. Handling of information concerning carriage of registered luggage

- The railway undertaking shall publish for the attention of passengers the conditions for the handling of registered luggage where the railway undertaking offers such handling. Where the service is not offered, the railway undertaking shall publish information to that effect. This information shall be published at least on the official website of the railway undertaking. This website shall comply with web content accessibility guidelines which take into account the needs of people with auditory and/or visual impairment.
The railway undertaking shall publish the following information:

- the train types/numbers and/or line number (if no train number is available for the public) where PRM facilities are available,
- the types and minimum quantities of PRM facilities in the above trains (such as wheelchair seat, PRM berth, PRM toilet, location of PRM seats) under normal operating conditions,
- the methods of requesting assistance for boarding and disembarking from trains (including PRM notice period, address, e-mail, operating hours and the telephone number of the office(s) for PRM-assistance) according to Article 24 of the Regulation on Passenger Rights,
- the maximum size and weight of wheelchair (including the weight of the PRM) permitted,
- the transport conditions for accompanying persons and/or animals,
- conditions of access to the station building and platforms, including whether the station is classified as accessible for PRMs and whether is staffed for PRM support,
- at least on its official website. This website shall be accessible to persons with disabilities.
BP 4.2.6. Handling of information concerning carriage and assistance of persons with reduced mobility (PRM)

- **Purpose:**
  - assistance request for persons with reduced mobility (PRM)

- **Conditions:**
  - If the railway undertaking or ticket vendor uses IT communication for the purposes of sending an availability / reservation request for PRM assistance

- **How:**
  - Reservation of PRM assistance (technical document B.10)
  - On bilateral agreement usage of proprietary standards possible
BP 4.2.6. Handling of information concerning carriage and assistance of persons with reduced mobility (PRM) - Example

- Example request:

```xml
<Requestor Company="1180" System="1"/>
(Dialogue DialogId="12345" Date="2010-08-13">
<PrmCustomer DisabilityDegree="25" PriorityCard="true" WheelChairChange="true">
<pc:FirstName>Jan</pc:FirstName>
<pc:LastName>Smith</pc:LastName>
<pc:Title>Mr</pc:Title>
<pc:DateOfBirth>1967-08-13</pc:DateOfBirth>
<pc:Phone Preferred="false">+49 5558 458787</pc:Phone>
<pc:MobilePhone Preferred="false">+49 5458</pc:MobilePhone>
<pc:E-mail Preferred="false">JS@blah.com</pc:E-mail>
...
```
BP 4.2.9. Handling of availability/reservation

- **Purpose:**
  - Exchange of availability/reservation messages data between RU’s and ticket vendor
  - Reservation of seats, berths, storage place for bicycles
- **Conditions:**
  - Based on commercial agreements between RU’s and/or ticket vendors
- **How:**
  - Reservation of seats, berths and storage places for cars and bicycles (technical document B.5)
  - On bilateral agreement usage of proprietary standards possible
• Example:

83859302707811000165900 001101001221904830011185000800522 070000005
(reservation request for 5 places Milano-Brig)
BP 4.2.10. Handling of security elements for product distribution

• Attributing system creates security element for electronic delivery
  – If a railway undertaking issues CIV compliant ticket/reservation, the staff of the rail ticket office/agency/retailer or the distribution system of the railway undertaking shall generate the security information to be inserted in the ticket/reservation.

• Attributing system creates a dossier reference for the railway undertaking for electronic delivery
  – If a railway undertaking issues CIV compliant ticket/reservation, the staff of rail ticket office/agency/retailer or the distribution system of the railway undertaking shall produce a dossier reference to retrieve the ticket/reservation and shall enter all information concerning the ticket into its own distribution system.

• Attributing system creates a dossier reference for the passenger undertaking for electronic delivery

• All these basic parameters are open points, no technical standard is available and has to be developed by ERA. Will be included in future version of TAP TSI.
BP 4.2.11. Delivery of the product to the customer after its purchase (fulfilment)

- **Conditions:**
  - Based on commercial agreements between issuer (e.g. RU, travel agency) and RU

- **How:**
  - RCT2 Ticket
  - Home printed ticket

- **Future developments:**
  - CEN standard (CEN/TS 16406) for e-ticket and manifest on list
BP 4.2.11. Delivery of the product to the customer after its purchase (fulfilment) - Example

Practical example: B.7

Generic layout of a home print ticket (A4 format) - upper and lower part:
A.5.1.4 Specimen No. 18: InterRail Complimentary Pass – Global Pass – FLEXI

<table>
<thead>
<tr>
<th>(CIV-MDI / UIC)</th>
<th>Full Name: EDSTROM KARL</th>
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</thead>
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10 D A Y S / 2 2 D A Y S

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</tbody>
</table>

Travel Calendar Below Must Be Filled

Valid: All Companies Participating in InterRail

Child: Only Valid With Passport ID and Not For Sale

Not Valid In Country of Residence

| PAGE: 1 / 1 |

Logo / name of ticket bearer

Items are designated as "blank" in ERA TAP TSI TD B.6

Orange field for stock control number
TAP TSI RU / IM BASIC PARAMETER
BP 4.2.12. Handling of information provision in the station area

• Purpose:
  – station manager shall provide the customer with train running information within the station area
  – E.g. Train type and/or number, Station(s) of origin, Scheduled arrival time, Deviation from plan

• Conditions:
  – at least in respect of stations at which trains performing international service stop
  – Display/voice announcement at discretion of station manager

• How:
  – No technical means are described in TAP TSI

Station manager

Information provision
BP 4.2.13. Handling of information provision in the station area

• Purpose:
  – RU shall provide the customer with train running information within the vehicle
  – E.g. Train type and/or number, Final destination(s), intermediate station stops, delay, next stop, connections

• Conditions:
  – at least all those trains performing international service
  – Display/voice announcement as discretion of railway undertaking

• How:
  – No technical means are described in TAP TSI
BP 4.2.15 Train running information and forecast

- This basic parameter lays down the train running information and train running forecast. It must prescribe how the dialogue between infrastructure manager and railway undertaking, as well as between railway undertaking and station manager, are to be maintained in order to exchange train running information and train running forecasts.

- The infrastructure manager shall send a ‘train running forecast’ message to the railway undertaking. This process shall be performed as soon as the train reaches contractually agreed Reporting Points to deliver a forecast. An agreed forecast point can be, among others, a handover point or a Station. A train running forecast can also be sent before the train starts running. For additional delays occurring between two Reporting Points, a threshold has to be contractually defined between the railway undertaking and the infrastructure manager to which an initial or a new forecast has to be sent. If the delay is not known, the infrastructure manager has to send a ‘service disruption message’ (see Section 4.2.16 Service disruption information).
Train Running Forecast Message

This message is issued from the IM to the neighbouring IM upon departure from or movement past agreed points or prior to reaching the first reporting point if, owing to a delay, the train has not reached the bilaterally agreed initial running time. This message is also issued from the IM to the RU when, at the next stopping or handling station, out-of-schedule running is anticipated that exceeds the threshold agreed with the RU responsible for the train. This message is also issued in any cases for handover points, interchange points, for the destination point and for each other reporting point predefined by contract.
Open points

• some standards could not be covered during the drafting phase of the TAP TSI → so called “Open points”
• These standards will be developed by ERA/CEN and incorporated during a revision of the TAP TSI as legally binding document
• The following European standards will be developed:
  • For fulfilment:
    – handling of security elements (e.g. barcodes) for product distribution
    – Fulfilment ‘Ticket On Departure’ and for European ‘Manifest On List’
    – fulfilment methods – direct and indirect - for domestic sales
  • For tariff data exchange

→ New standards will be mandatory after incorporation in TAP TSI: **study has been launched by ERA**
TAP TSI IMPLEMENTATION
Implementation of TAP TSI

Phase one
- detailed IT-Specification
- architecture (RU/IM, commercial)
- Master plan
- Governance

→ results incorporated in amended TAP TSI regulation EC 1273/2013

Phase two
- development

Phase three
- Roll-out of TAP TSI

Today

Ca. 2016
TAP TSI master plan – retail functions

- The master plan define the implementation dates for the functionalities of the TAP TSI (retail and RU/IM-communication).
- Some milestones for TAP TSI retail basic parameters:

<table>
<thead>
<tr>
<th>Basic parameter (excerpt)</th>
<th>Implementation year</th>
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</thead>
<tbody>
<tr>
<td>Timetable</td>
<td>2016</td>
</tr>
<tr>
<td>NRT fares (TCV fares)</td>
<td>2016</td>
</tr>
<tr>
<td>Sending reservation requests</td>
<td>2015</td>
</tr>
<tr>
<td>Answering reservation requests</td>
<td>2015</td>
</tr>
<tr>
<td>Issuing value paper tickets (RCT2)</td>
<td>2012</td>
</tr>
<tr>
<td>Accepting value paper tickets (RCT2)</td>
<td>2013</td>
</tr>
</tbody>
</table>

- TAP TSI master plan available at ERA-website:
TAP TSI implementation assessment

- Assess the implementation of TAP TSI
- Reporting about the TAP TSI implementation progress of commercial functions to DG MOVE and MS’s:
  - per TAP-TSI Function compared to the Master Plan target date
  - per TAP-TSI function by country, as an aggregate of all responses, compared to the Master Plan target date
  - progress (shown as percentage) of the implementation per TAP TSI function on weighted responses
- There will be 2 reports per year
- Propose measures to mitigate possible delays
- Identification of problems for the implementation of the TAP TSI
- Submitted via sector organisations, NCP’s to ERA
- Discussion about the possible solution for these problems (e.g. change request to TAP TSI change control management)
For coherent TAP implementation monitoring ERA started 2016 the TAP cooperation WG. → 1st implementation report was sent to EC 2016.
TAF TSI implementation assessment

- Implementation database + GIS map available at:

Example: train running function implementation
TAF TSI implementation assessment

- Implementation data series make available trends and forecasts
Supporting tools for TAP TSI available in the market:

- MERITS database (passenger timetables) by UIC
- PRIFIS database (fares database) by UIC
- HERMES reservation system by HitRail
- PCS/TIS by RNE for RU/IM communication

- Other IT providers are possible or own IT developments within the companies (RUs and IMs).
Useful links

ERA:
http://www.era.europa.eu/Pages/Home.aspx

TAF TSI Regulation EU 1305/2014:

TAF TSI Technical Documents:

TAF TSI GIS Interactive Implementation Maps:

TAF TSI Master Plan:

TAP TSI Regulation EU 454/2011:

TAP TSI Technical Documents:

TAF/TAP Reference Files (Company Codes and Primary Location Codes):
http://teleref.era.europa.eu/
Useful links

TAF Regional Workshops held by ERA:

Workshops links (with presentations):

- [http://www.era.europa.eu/Communication/News/Pages/Regional-Workshops-for-TAF-TSI.aspx](http://www.era.europa.eu/Communication/News/Pages/Regional-Workshops-for-TAF-TSI.aspx)
Making the railway system work better for society.

Follow us on Twitter: @ERA_railways
CEF FUNDING
INEA

Innovation and Networks
Executive Agency

INEA in short:

- Executive Agency with 4 Commission parent DGs
- Mandated to manage parts of CEF/H2020 and Legacy programmes
- Specialist staff, many with previous experience in EU Institutions – primarily the Commission
- Rapid expansion from 100 to ca. 300 staff managing around 2000+ projects by 2020
INEA's goals: Making implementation happen

- Raising **visibility** of EU support to transport infrastructure and transport research
- Promoting **funding** opportunities to open access to EU funding
- Providing **information and support** to beneficiaries
- Administering the **grants** awarded
- Providing **technical and financial follow-up** of project implementation
- Controlling the use of allocated **funds**
- Promoting **achievements, results and successes**
- Providing **feedback to policy-making**
- Creating **synergies** across the programmes
Managing programmes worth €34.1bn

- CEF Transport *(incl. Cohesion Fund allocation)*
- CEF Energy
- CEF Telecom

**Marco Polo legacy from 2007-2013** *(previously managed by EACI – now EASME)*

**TEN-T legacy from 2007-2013**

For the period 2014-2020 - €22.4 billion for CEF Transport and €2.9 billion for H2020 Transport
CEF 2014 Call: Rail Interoperability

€50 million (general envelope) indicative budget for actions in the following Specific Objectives:

Interoperability of the rail system as set out in Directive 2008/57/EC, addressing:

- TAF and TAP TSI
- Railway system compliance with IOP and Safety Directives (including TSI other than TAF/TAP) and TEN-T Guidelines

Rail Freight Corridors

- Regulation 913/2010/EC concerning a European Rail Network for Competitive Freight ("RFC-Regulation")

RFC:

7 apps submitted
7 selected with €20M EU grant

TSI:

3 apps submitted
1 selected with €8M EU grant
CEF 2015 Call: Rail Interoperability

€50 million (cohesion envelope) indicative budget for actions in the following Specific Objectives:

- Interoperability of the rail system as set out in Directive 2008/57/EC (TAF and TAP TSI)
- Railway system compliance with Interoperability and Safety Directives (including TSIs other than TAF/TAP) and TEN-T Guidelines
- Implementation of the Rail Freight Corridors

RFC:
2 apps submitted
0 selected

TSI:
5 apps submitted
4 selected with €12M EU grant
CEF 2016 Call: Rail Interoperability

€20 million (cohesion envelope) indicative budget for actions in the following Specific Objectives:

Interoperability of the rail system as set out in Directive 2008/57/EC (TAF and TAP TSI)

Railway system compliance with Interoperability and Safety Directives (including TSI's other than TAF/TAP) and TEN-T Guidelines

TAF/TAP TSI:

7 apps submitted
4 selected with €7,5M EU grant

Other TSI's:

1 app submitted
0 selected
CEF Calls: Rail Interoperability

Most recurrent reasons for not retaining applications:

- moderate response to the Calls
- poor quality
- poor relevance
- limited EU added value (impact)
The call process

European Commission

Executive Agency (INEA)

Call publication
Proposal admissibility & eligibility check
External evaluation

Internal evaluation/Selection

Consultation of the CEF Coordination Committee
Selection decision

Preparation & signature of grant agreements
CEF funding

**Submission of proposals**
- Admissibility check
- Eligibility check

**Individual evaluation**
- Individual evaluation report

**Consensus**
- Consensus report

**Internal evaluation & selection**
- Draft list of proposals selected for funding

**Financial and operational capacity check**

**INEA**
**External experts**
**INEA/Commission**

N° 84
Who are these experts?

- Registered in the Commission's Expert database for CEF
- Expertise in Transport domains
- Without Conflict of Interest
- Geographic and gender balance

What is their working process?

Understand Call Text
- Read briefing material
- Follow remote/on-site briefings

Evaluate individually
- Remote phase
- No contact between experts

Come to Consensus meetings
- Discuss with 2 other experts
- Reach consensus on comments and scores
- Recommend / not recommend a proposal for funding
Evaluation: Award criteria

Relevance
- Contribution of the proposed Action to the TEN-T & CEF priorities and priorities of the calls
- EU added value

Maturity
- Is the proposed Action ready to go (at the latest within 18 months after the closure of the Call)?

Impact
- Expected effect on financial viability
- Expected socio-economic effects, climate and environmental aspects

Quality
- Completeness and clarity of the proposal
- Description of the planned activities
- Timely completion
- Coherence between objectives, activities and planned resources
- Soundness of the project management process
Evaluation: Selection Committee – DG MOVE, INEA & DG ENV

Role: Assess and validate the list of proposals recommended for funding and those not to be funded paying particular attention to:

- Contribution to the balanced development of the network
- Budgetary constraints
- Complementarity with other EU funded projects
- Potential synergies across the different CEF sectors and/or other EU Programmes
- Comparative EU added value in relation to other proposed Actions
- Any risks of double-funding from other Union sources
Tips to increase your chances in the future calls

Start preparing your proposal as early as possible. Don’t wait until the deadline to submit your proposal.

Write as clearly and concisely as possible.

Refer to the proposal checklist before submitting.
For more information

inea@ec.europa.eu

http://ec.europa.eu/inea

@inea_eu

Look for INEA!

CEF-T Projects by country:

Your Telematics Team at the European Union Agency for Railways:

- Mickael.varga@era.europa.eu
- Kresimir.raguz@era.europa.eu
- Stefan.Jugelt@era.europa.eu
- Kornel.nagy@era.europa.eu

Thank you! Tack!