Technical specifications for Interoperability (TSIs)
1. Content and Scope
2. Major differences between a TSI and UIC-leaflets / standards
3. When do they need to be applied?
Railway Interoperability Directives are « new approach » Directives

*Principles of « new approach » laid down in Council resolution, 1985:*

- Legislative harmonisation is limited to essential requirements to be met if products are to benefit from free movement within the Community
- Technical specifications that would enable products to meet the essential requirements set out in new approach directives are laid down in European ‘harmonised’ standards
- Compliance with ‘harmonised’ standards remains voluntary
- Products manufactured in compliance with ‘harmonised’ standards benefit from a presumption of conformity with the corresponding essential requirements.

Interoperability Directives add a « layer »:

Technical Specifications for Interoperability (TSIs)
In application of the “new approach process” Interoperability Directive fixes essential requirements:

- Safety,
- Reliability and availability,
- Health
- Environmental protection
- Technical compatibility

Plus requirements specific to each subsystem

Directive not ask directly for standards but intermediate mandatory rules:

Technical Specifications for Interoperability - TSI
For the purposes of this Directive, the system constituting the rail system may be broken down into the following subsystems, either:

(a) structural areas:
   - infrastructure,
   - energy,
   - control-command and signaling,
   - rolling stock;

(b) functional areas:
   - traffic operation and management,
   - maintenance,
   - telematics applications for passenger and freight services.

EC DIR 2008/57
Annex II
1. Each of the subsystems shall be covered by one TSI. Where necessary, a subsystem may be covered by several TSIs and one TSI may cover several subsystems. ........

2. Subsystems shall comply with the TSIs in force at the time of their placing in service, upgrading or renewal, in accordance with this Directive; this compliance shall be permanently maintained while each subsystem is in use.
Both requirements & assessment procedures are mandatory
How does the Agency work?

Sector organisations acting at European level*:
- UNIFE
- CER
- EIM
- UITP
- UIP
- UIRR
- ERFA
- ETF
- ALE
- EPTTOLA

National Safety Authorities’ experts

Decision

Opinion of RISC
(Railway Interoperability + Safety Committee)

Commission

Social Partners

Passengers / customers

experts

Working Party

Working Party

Working Party

……………

recommendations

* List established by Article 21 Committee on 22 February 2005, amended on 04.12.2009

9 March 2011 IPA project - ERA visit to Croatia
1. Content and Scope
2. Major differences between a TSI and UIC-leaflets / standards
3. When do they need to be applied?
**TSI / EN-Standard ; UIC-leaflet**

**TSI**
- legal act: Commission decision or regulation
- mandatory
- linked to Essential requirements
- assessment by NoBo (structural TSIs)

**EN-Standard; UIC-leaflet**
- CEN/ CENELEC or UIC
- voluntary (generally)
- can meet Essential requirements or support internal/commercial procedures / issues
- assessment by addressee

IPA project - ERA visit to Croatia
TSIs may take an explicit, clearly identified reference to European or international standards or specifications or technical documents published by the Agency.

These standards or specifications or technical documents shall be regarded as annexes to the TSI concerned and shall become mandatory from the moment the TSI is applicable.

TSIs shall be published by the Commission in the Official Journal of the European Union.

EC DIR 2008/57
Art. 5.8 & Art. 6.10
Example of mandatory application of standards:
Decision 2009/107 amending Decision 2006/861 “Wagons TSI”

Annex JJ-2
2.5. Dynamic behavior of the vehicle
In addition to the specifications of section 4.2.3.4 of this TSI, it is required that for the particular cases of the bogies not listed in annex Y, EN 14363 or leaflet UIC 432 apply

Chapter 6 – Assessment procedures
6.2.3.2.1.4. Exemptions from stationary tests
Freight wagons are exempted from the stationary tests mentioned in section 4.2.3.4.2.1 if they comply with the requirements of UIC leaflet 530-2 (May 2006)
Example of voluntary application of standards providing presumption of conformity:

Standards in CR Rolling stock – Freight wagons TSI (2006/861/EC)


Pages 6 & 7 /13
Standards or other documents not referred in the rolling stock –freight wagons TSI (and therefore voluntary)

| 4.2.2.3.5 | Securing of freight | UIC-577 Wagon stresses  
| UIC-571-4 Standard wagons - Wagons for combined transport - Characteristics  
| EN 12663-2 Railway applications - Structural requirements of railway vehicle bodies |
1. Content and Scope
2. Major differences between a TSI and UIC-leaflets / standards
3. When do they need to be applied?
Without prejudice to Chapter V, each Member State shall authorise the placing in service of those structural subsystems constituting the rail system which are located or operated in its territory.

EC DIR 2008/57
Art. 15.1
1. Before being used on a network, a vehicle shall be authorized to be placed in service by the national safety authority which is competent for this network, unless otherwise provided for in this Chapter.

2. A TSI conform vehicle shall be authorized in accordance with Articles 22 or 23.

3. A non-TSI conform vehicle shall be authorized in accordance with Articles 24 or 25.
The first authorization shall be granted by a national safety authority as follows:

(a) ....;
(b) in the case of vehicles bearing all necessary ‘EC’ declarations of verification .. a national safety authority may check ...:

— technical compatibility between the vehicle's relevant subsystems and their safe integration in accordance with Article 15(1),
— technical compatibility between the vehicle and the network concerned,
— national rules applicable to the open points
— national rules applicable to the specific cases duly identified in the relevant TSIs.
After these subsystems have been placed in service, the check shall be carried out:

(a) for infrastructures, in the context of the granting and supervision of safety authorizations under Article 11 of Directive 2004/49/EC;

(a) for vehicles, in the context of the granting and supervision of safety certificates under Article 10 of Directive 2004/49/EC.

EC DIR 2008/57
Art. 15.3
In the absence of relevant specific cases, a Member State need not apply one or more TSIs ....:
(a) for project,....., at an advanced stage of development;
(b) for project ...... where the loading gauge, track gauge, space between the tracks or electrification voltage in these TSIs is not compatible with those of the existing subsystem;
(c) for project ... separated or isolated by the sea or separated as a result of special geographical ...;
(d) for project .. when the application of these TSIs would compromise the economic viability and/or the compatibility ...;
(e) following an accident or a natural disaster, .....;
(f) for vehicles coming from or going to third countries with different the track gauge.