Safe operation of international trains: from a patchwork of national networks to a unified network

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Software vs Hardware
Organising international rail transport

- Access conditions
- Cross border operation of train
- Exchange of vehicles
- Transport contracts

State A

Agreement

State B

Access conditions

Appendix H

Cross border operation of train

APTU + ATMF

Exchange of vehicles

CIM + CIV

Transport contracts
Exchange of vehicles

The classical model for international rail transport

Requires, e.g.:

• Wagons and passenger coaches approved for international operation
• Harmonised vehicle interfaces
• Clear responsibilities concerning vehicle maintenance
• Multiple railway undertakings to bring vehicle to its destination
Technical interoperability

Running complete trains safely across borders from departure to destination

Requires, e.g.:
• Rolling Stock approved for international operation
• Railway undertakings certified to operate in multiple States
• Infrastructure managers capable of working with different RUs
• Clearly define responsibilities at interfaces between RUs and IM
• Separation between State Authorities and national railway operator
Strategy towards better integration based on EU regulations

• The integration of a regional area would mean including the specific features of the forecast international corridors in the regulations.

• The role of ERA would be predominant, as it would be able to actually issue the regulations.

• The main question would how to arrange the technical work, so that non-EU states’ voices could also be heard.
New Appendix H to COTIF concerning the safe operation of trains in international traffic

Basic principles

States to ensure:

1. Trains are operated in international traffic in accordance with the new Appendix
2. National binding operational and safety rules are published (and must not conflict with COTIF rules, otherwise it would conflict with principle 1.)
3. RU and IM are responsible for safety and each must establish their SMS (even when part of one integrated railway organisation)
4. A Certification Authority is established
5. A Supervision Authority is established
6. These authorities must be independent from any RU or IM and can be national or international
Appendix H: main elements

State A

- Safety certification authority
- Supervision authority

Railway undertaking

- Safety management system

State B

- Safety certification authority
- Supervision authority

Railway undertaking

- Safety management system

Common COTIF rules

National rules

State A: National rules

State B: National rules

State A: COTIF rules

State B: COTIF rules

Supervision authority

Supervision authority

Safety management system

Safety management system

Infrastructure manager

Infrastructure manager
Open questions currently being discussed within OTIF

- Assessing infrastructure compatibility:
  - process (starting from Infra TSI?)
  - developing OTIF’s regulations?

- Role of ERA?

- How to integrate UIC in the process?