Railway Safety within EU
ERA support to IPA beneficiaries

TCT – TDG TC
(remote) 27 October 2021
Rail is connecting people and delivering goods efficiently, reliably – and safely
... but there are still catastrophic accidents

- The safety level of rail in Europe has improved at impressive pace over the past decades, and the railway industry can be proud of its achievements - most of this has been achieved through advances in technology
- Migrating towards Safety Management Systems - need for strong safety leadership and for an environment that has a positive safety culture
- Human and Organisational Factors (HOF) plays a significant role in all catastrophic railway accidents and occurrences
- (Cyber-)Security is a rising threat
Progress with Railway Safety in the EU

Report on Railway Safety and Interoperability in the EU 2020

Significant accidents, fatalities and serious injuries

<table>
<thead>
<tr>
<th>Year</th>
<th>Significant accidents</th>
<th>Fatalities</th>
<th>Serious injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2,292</td>
<td>1,270</td>
<td>1,029</td>
</tr>
<tr>
<td>2011</td>
<td>2,224</td>
<td>1,206</td>
<td>1,018</td>
</tr>
<tr>
<td>2012</td>
<td>2,069</td>
<td>1,135</td>
<td>934</td>
</tr>
<tr>
<td>2013</td>
<td>1,980</td>
<td>1,129</td>
<td>851</td>
</tr>
<tr>
<td>2014</td>
<td>2,076</td>
<td>1,054</td>
<td>819</td>
</tr>
<tr>
<td>2015</td>
<td>1,804</td>
<td>962</td>
<td>682</td>
</tr>
<tr>
<td>2016</td>
<td>1,795</td>
<td>970</td>
<td>625</td>
</tr>
<tr>
<td>2017</td>
<td>1,848</td>
<td>974</td>
<td>756</td>
</tr>
<tr>
<td>2018</td>
<td>1,721</td>
<td>885</td>
<td>760</td>
</tr>
</tbody>
</table>

Source: Common Safety Indicators (CSIs) as reported by National Safety Authorities (NSAs) to the Agency, published in ERAIL.
Railway Safety across the EU

Figure A-9: Railway fatality rates (ERA countries, 2016-18)

All fatalities per million train kilometers over 2016-2018

Notes: EU= 28 Member States as of 2019
Source: Common Safety Indicators (CSIs) as reported by National Safety Authorities (NSAs) to the Agency, published in ERAIL
ERA support to IPA beneficiaries since 2011

EU Candidates

North Macedonia, Montenegro, Serbia, Turkey, Albania

EU Potential Candidates

Bosnia and Herzegovina, Kosovo *

Implementation period

01/01/2020 – 31/12/2022

Budget available

450,000 EUR (2020 – 2022)

Project profile and scope

A structured instrument for providing pre-accession assistance and support in the field of institutional building, transposition of EU law, training of experts of EU candidates and potential candidates

Reasons/Necessity of the measures

Enhancement of cooperation and support to Western Balkans and Turkey with view future or potential EU membership

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ opinion on the Kosovo declaration of independence.
• Close cooperation with the Transport Community and its Technical Committees, e.g. Committee for Railways, TDG Committee, Social Forum
• Trainings for Project Beneficiaries (e.g. SMS, Risk Management, Human and Organisational Factors (HOF) in accident investigation)
• Support the implementation of the Transport Community Rail Action Plan e.g. capacity building (Establishing functioning institutions NSA, NIB)
• Technical Support to IPA Beneficiaries e.g. help to prepare the cleaning up of national rules
• Integrating (as observers) the IPA Beneficiaries into the NSA Network and the NIB Network
• Inviting experts from among IPA Beneficiaries to participate in NSA Monitoring activities and NIB Peer Reviews
TDG by Rail within EU

TCT – TDG TC
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Transport of Dangerous Goods from International law viewpoint

- **Globally Harmonised System for Classification and Labelling of Chemicals**
- **Recommendations on the Transport of Dangerous Goods (Model Regulations)**
  - ICAO Technical Instructions (aviation)
  - IMDG Code (maritime)
  - Regulations for the (European) Land Modes
    - ADN (inland waterways)
    - ADR (road)
    - RID (rail)
  - SMGS Annex 2 (TDG rail)

Source: OTIF presentation
Transport of Dangerous Goods from EU Directive viewpoint

ADR Annex

RID Annex

ADN Annex
Inland Transport of Dangerous Goods

Application scope (examples)

and results (examples)
Interfaces and coordination of legal requirements

Safe railway operations AND Interoperable railway operations

**Directive (EU) 2016/798**
Definition of railway actors’ roles and responsibilities (applicable to TDG service)
- CSM on SMS requirements
  - similar as Safety Adviser duties,
  - including risk management,
  - and compliance with RID provisions (rules)
- ECM Regulation (ECM)
  - Vehicle maintenance, including TDG wagons
- CSM Monitoring (RU, IM, ECM)
- CSM Risk assessment and evaluation
  - Risk Control Measures
  - Change management
- CSM ASLP (under adoption process)
  - Occurrence reporting
  - Analysis of accident scenarios
  - Safety information sharing
  - Safety improvement process
- Investigations (NIB)
- CSM Supervision (NSA)

**Directive 2008/68**
(RID provisions)
- Class, Packaging, Tank design, Documentation, Markings, Labels, Tank-wagon protection measures

**Safety obligations of participants**

**Training**

**Administrative controls and support (TDG CA)**

**Safety adviser (RU, IM,...)**

**Notification of TDG occurrences (RU, IM,...)**

**Conformity assessments, Tank approval, periodic inspection (TDG CA, Bodies)**

**Restrictions**

**Emergency plans, Instructions**

**Directive (EU) 2016/797**
(applicable to TDG service)

**Railway vehicle**
- TSI WAGON (interoperable design)
- TSI Control Command and Signaling
- TSI Locomotive and Passengers

**Vehicle Authorisation Regulation**
- Tank certificate
- Tank-wagon authorization (ERA)

**Operating rules**
- TSI Traffic Management and Operation (OPE)
- TSI Safety in Railway Tunnels (SRT)
- TSI Telematic Application for Freight

**Directive (EU) 2007/59/EC**
(Train Drivers certification)

Interoperable railway operations

Safe railway operations
Interfaces and coordination of legal requirements

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Interoperable railway operations

Safe railway operations
Interfaces and coordination of legal requirements (not exhaustive) examples of interfaces

**Consistent application** of EU Directives on Railway Safety, Railway Interoperability, Drivers... and COTIF appendices *is necessary*

- **Safety obligations of the participants – RID 1.4**
  - / including also interfaces with other COTIF appendices

- **Checks and other support measures to ensure compliance with safety requirements – RID 1.8.1 and 1.8.2**
  - / Audit and inspections obligations of the National Safety Authorities (NSA)
  - / Common Safety Method on Supervision of operators (CR (EU) 2018/761) applied by the NSAs
  - / Safety Authorisations of Infrastructure Managers by NSAs
  - / Safety Certification of Railway Undertakings by ERA in cooperation with (NSA) within EU
  - / Practical arrangements between NSAs and ERA

- **Conformity assessments, inspections, checks of tanks - RID 1.8.6, 1.8.7 / RID 6.8**
  - / Vehicle Authorisations – including tank-wagons – issued by ERA within EU

- **Notification of occurrences involving dangerous goods - RID 1.8.5**
  - / Annex I and II to RSD on Common Safety Indicators
  - / Investigation of accidents
  - / future CSM on Safety level and safety performance of railway operators

- **Safety Advisor - RID 1.8.3**
  - Article 4 (f) “where applicable, .../the SMS of the organisation shall take into account/... the conclusions of the annual report of the safety advisor, as referred to in RID, on the activities of the organisation relating to the transport of dangerous goods.”
  - / Common Safety Method on Monitoring (CR (EU) 1078/2012)

- **Special provisions – RID 6.8.4 (TE 22, TE 25...)**
  - / Technical Specifications for Interoperability

- **Restrictions on carriage imposed by the Competent Authorities - RID 1.9**
  - / Art. 1.4.b on routing or modal prescriptions
  - / Art 5.1 of TDG Directive on specific safety requirements
  - / National rules under RSD and IOD Directives
  - / Regulation 402/2013 (Common Safety Method on Risk Assessment and Evaluation) – equivalent UTP under APTU

  -> Guidelines on Harmonised risk management Framework
  Referred to in RID/ADR 2023
Interfaces and coordination of legal requirements

Joint Coordinating Group of Experts
The purpose of these AdAr is to establish effective collaboration and coordination in the field of international railway transport policy and law to ensure complementarity and synergy of effort within the framework provided by their respective areas of competence.

7 TRANSPORT OF DANGEROUS GOODS

The participants [OTIF/DG MOVE/ERA] should endeavour to exchange information with the aim of improving consistency between RID and the EU rules applicable to railways, where necessary through the Joint Coordinating Group of Experts, in particular on the following issues:

a) Allocation of responsibilities to the railway stakeholders
b) Railway operations
c) Wagon construction
d) Reporting of accidents and statistics
e) Emergency planning
f) Telematics applications
g) Terminology
h) Risk evaluation and assessment methods
i) Any other relevant issues.

• Administrative Arrangements (212.64 KB)
• Annex to the Administrative Arrangements between the OTIF Secretariat, DG MOVE and ERA (270.07 KB)
• EU-OTIF equivalence table (1.08 MB)
• Cross reference table EU and OTIF terminology (1.15 MB)
Making the railway system work better for society.

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