

# 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



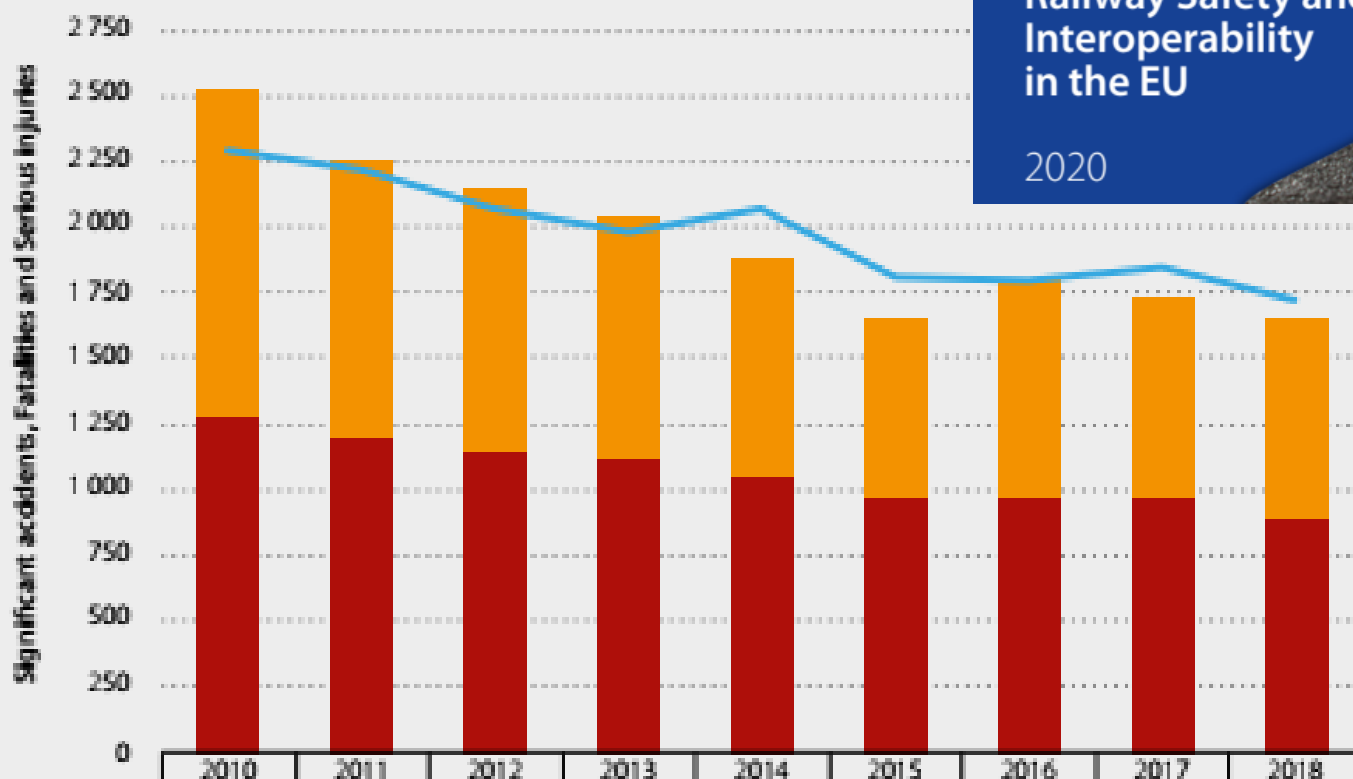
- The safety level of rail in Europe has improved at impressive pace over the past decades, and the railway industry can be proud of its achievements - most of this has been achieved through advances in technology
- Migrating towards Safety Management Systems - need for strong **safety leadership** and 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

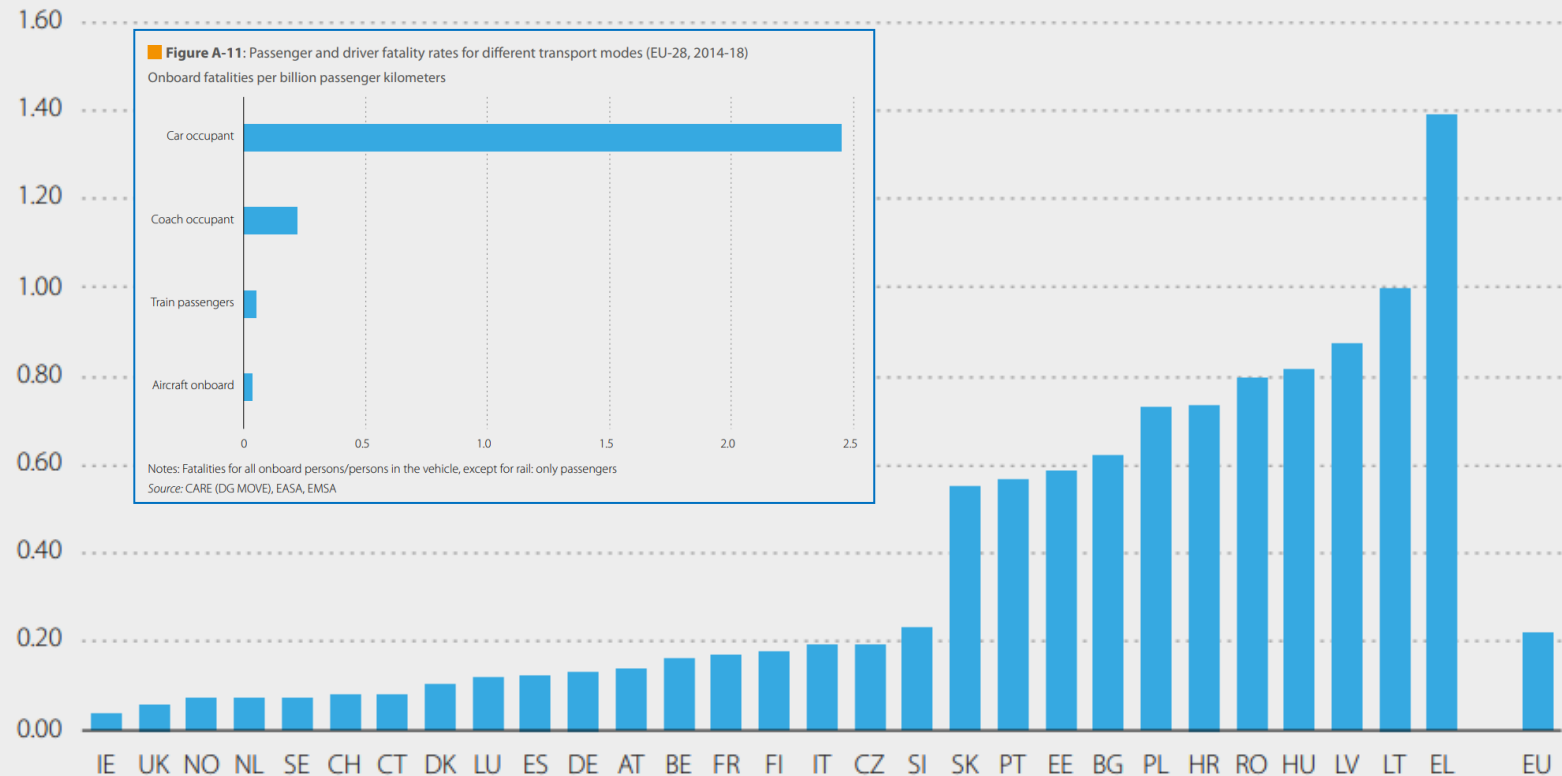


Source: Common Safety Indicators (CSIs) as reported by National Safety Authorities (NSAs) to the Agency, published in ERAIL

# Railway Safety across the EU

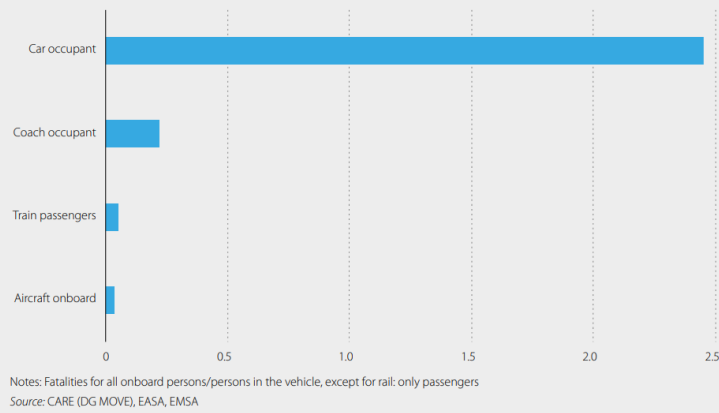
**Figure A-9: Railway fatality rates (ERA countries, 2016-18)**

All fatalities per million train kilometers over 2016-2018



**Figure A-11: Passenger and driver fatality rates for different transport modes (EU-28, 2014-18)**

Onboard fatalities per billion passenger kilometers



Notes: Fatalities for all onboard persons/persons in the vehicle, except for rail: only passengers

Source: CARE (DG MOVE), EASA, EMSA

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.

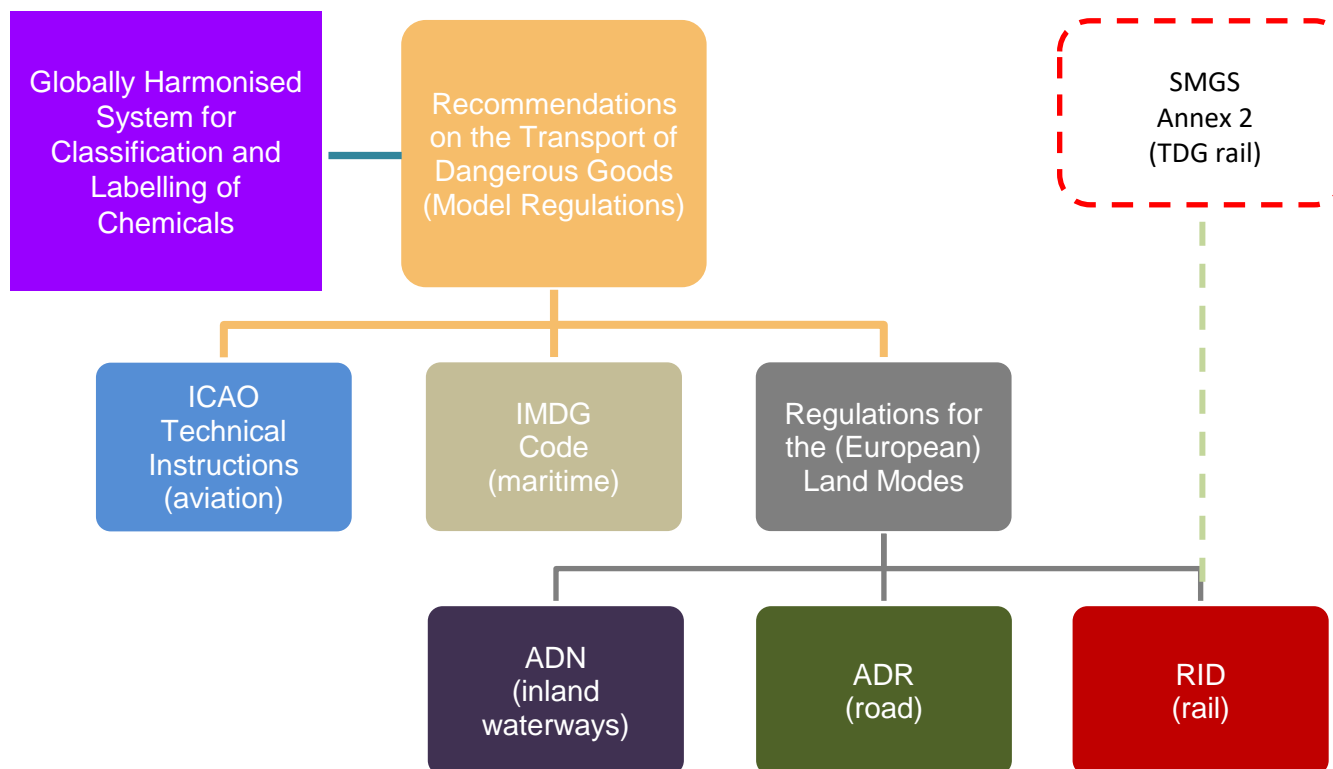
- Close cooperation with the Transport Community and its Technical Committees, e.g. Committee for Railways, TDG Committee, Social Forum
- Trainings for Project Beneficiaries  
(e.g. SMS, Risk Management, Human and Organisational Factors (HOF) in accident investigation)
- Support the implementation of 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

(remote) 27 October 2021

# Transport of Dangerous Goods from International law viewpoint



# Transport of Dangerous Goods from EU Directive viewpoint

30.9.2008 EN Official Journal of the European Union L 260/13

**DIRECTIVES**

**DIRECTIVE 2008/68/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**  
**of 24 September 2008**  
**on the inland transport of dangerous goods**  
 (Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 71 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee <sup>(1)</sup>,

After consulting the Committee of the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty <sup>(2)</sup>,

Whereas:

(1) The transport of dangerous goods by road, rail or inland waterway presents a considerable risk of accidents. Measures should therefore be taken to ensure that such transport is carried out under the best possible conditions of safety.

(2) Uniform rules concerning the transport of dangerous goods by road and by rail were established by Council Directive 94/55/EC of 21 November 1994 on the approximation of the laws of the Member States with

regard to the transport of dangerous goods by road <sup>(3)</sup> and Council Directive 96/49/EC of 23 July 1996 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail <sup>(4)</sup> respectively.

(3) In order to set up a common regime covering all aspects of the inland transport of dangerous goods, Directives 94/55/EC and 96/49/EC should be replaced with a single Directive which also lays down provisions in relation to inland waterways.

(4) The majority of Member States are contracting parties to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), subject to the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) and, in so far as is relevant, contracting parties to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN).

(5) The ADR, RID and ADN lay down uniform rules for the safe international transport of dangerous goods. Such rules should also be extended to national transport in order to harmonise across the Community the conditions under which dangerous goods are transported and to ensure the proper functioning of the common transport market.

(6) This Directive should not apply to the transport of dangerous goods in certain exceptional circumstances linked to the nature of the vehicles or vessels involved, or to the limited nature of the transport undertaken.

(7) Nor should the provisions of this Directive apply to the transport of dangerous goods under the direct and physical responsibility or supervision of the armed forces. The transport of dangerous goods carried out by commercial contractors working for the armed forces should, however, fall within the scope of this Directive unless the contractual duties are carried out under the direct and physical responsibility or supervision of the armed forces.

<sup>(1)</sup> OJ C 256, 27.10.2007, p. 44.  
<sup>(2)</sup> Opinion of the European Parliament of 5 September 2007 (OJ C 187 E, 24.7.2008, p. 148), Council Common Position of 7 April 2008 (OJ C 117 E, 14.5.2008, p. 1) and Position of the European Parliament of 19 June 2008 (not yet published in the Official Journal).  
<sup>(3)</sup> OJ L 319, 12.12.1994, p. 7.  
<sup>(4)</sup> OJ L 235, 17.9.1996, p. 25.

ADR Annex



RID Annex



ADN Annex



# Inland Transport of Dangerous Goods



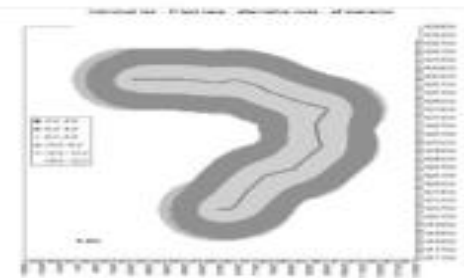
## Application scope (examples)



## and results (examples)

		Likelihood				
		Very Likely	Likely	Possible	Unlikely	Highly Unlikely
Consequence	Fatality	Extreme	High	High	High	Medium
	Major Injury	High	High	High	Medium	Medium
	Minor Injury	High	Medium	Medium	Medium	Medium
	First Aid	Medium	Medium	Medium	Low	Low
	Negligible	Medium	Medium	Low	Low	Low

Figure 3b



Example of a diagram with DSC risk graphs of the spatial distribution of the individual risk component for DSC scenarios, from [11]

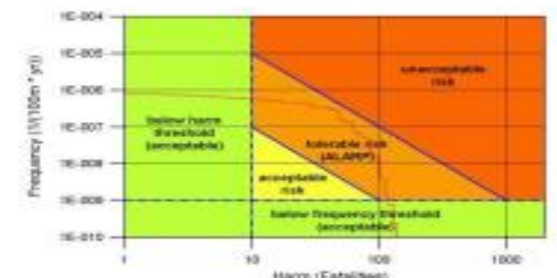
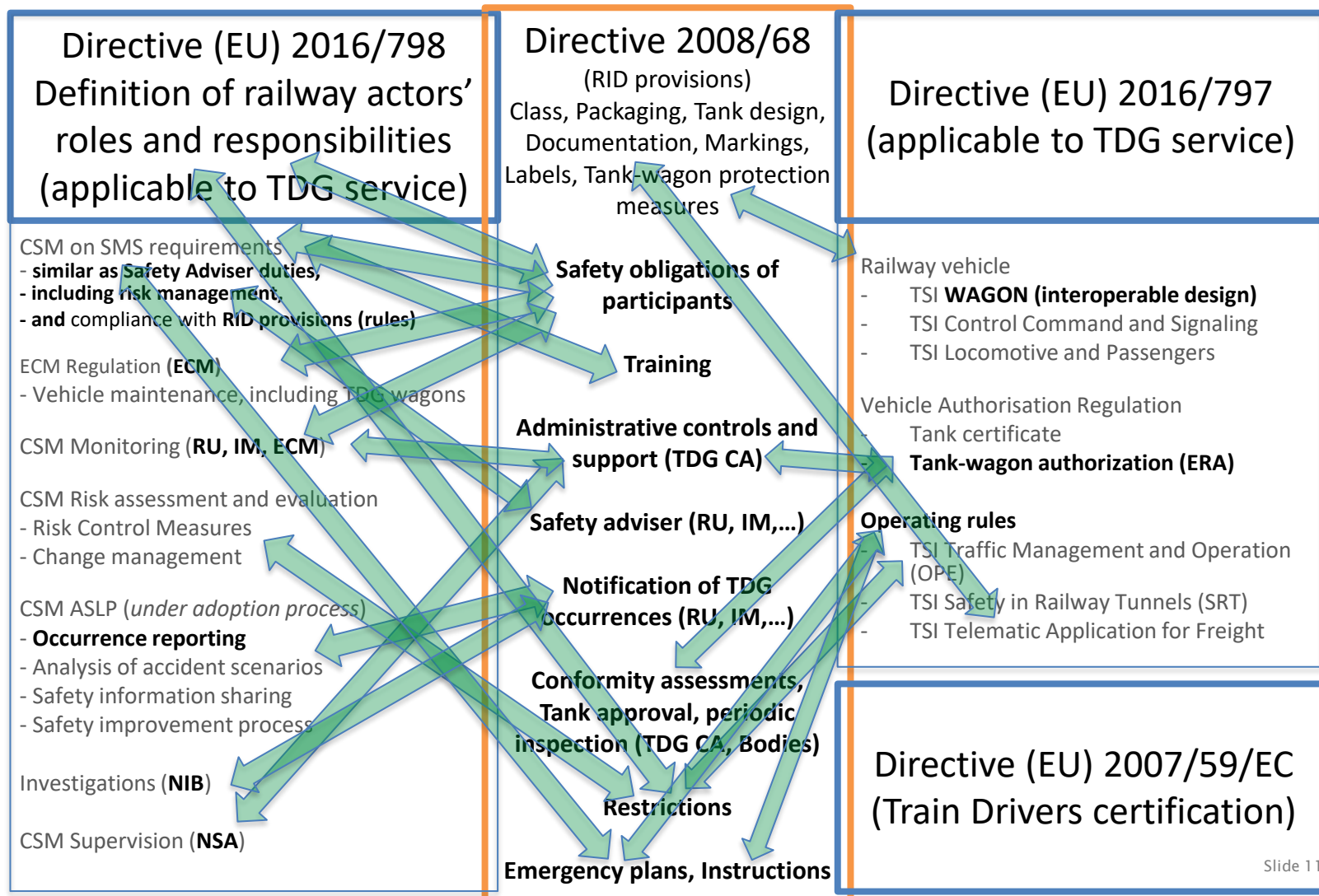


Figure 3c: Example of an FN graph for societal risk with possible areas for risk evaluation (presentation of principle with arbitrary scaling)

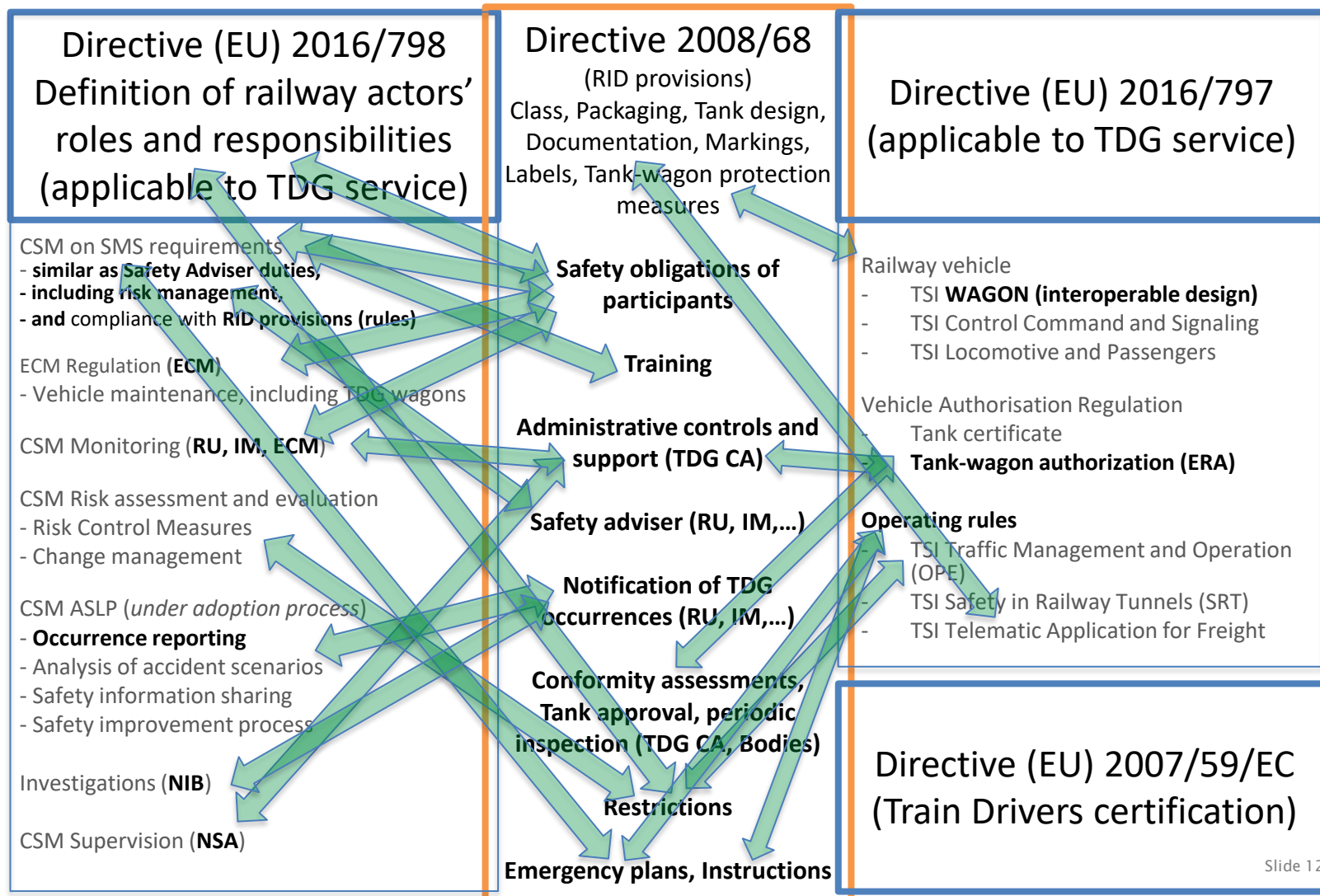
# Interfaces and coordination of legal requirements

Safe railway operations AND Interoperable railway operations



# Interfaces and coordination of legal requirements

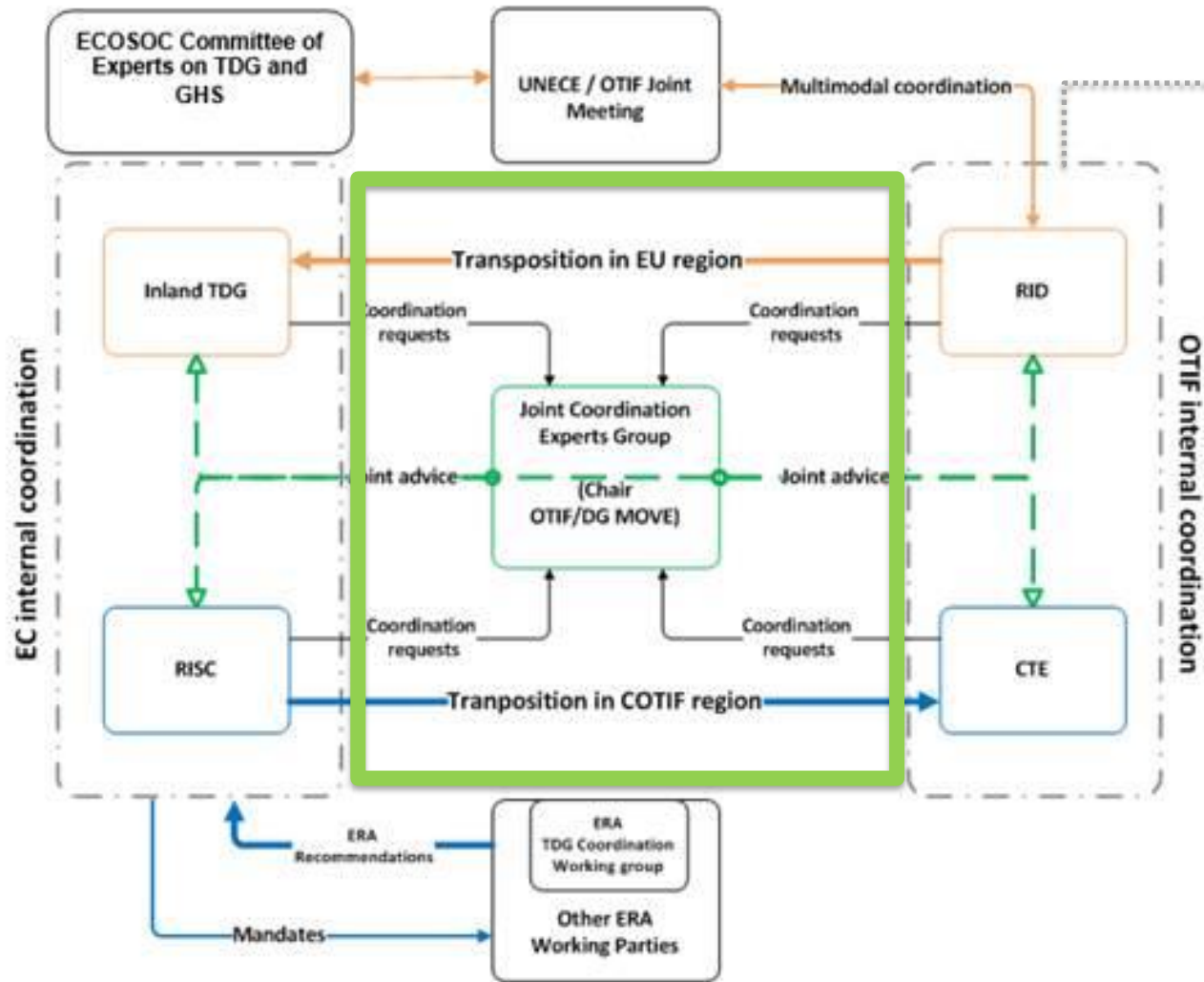
Safe railway operations AND Interoperable railway operations



# 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**
    - / Railway Safety Directive – Interoperability Directive
    - / 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**
    - / Safety Management System requirements (Commission Regulation (EU) 2018/762)
    - 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



Joint Coordinating Group of Experts

# Interfaces and coordination of legal requirements

## Administrative Arrangements OTIF / DG MOVE / ERA

- [Administrative Arrangements](#) (212.64 KB)

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

- [Annex to the Administrative Arrangements between the OTIF Secretariat, DG MOVE and ERA](#) (270.07 KB)

.../

### **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.

.../

- [EU-OTIF equivalence table](#) (1.08 MB)

- [Cross reference table EU and OTIF terminology](#) (1.15 MB)



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