The Facts

**5x less gCO₂e / 10 km**
emitted by the average rail freight load compared to its counterpart on the road

**EU average GHG emissions for freight transport (gCO₂e per tonne-km, 2018)**
- 1036 Air
- 137 Road
- 33 Inland waterways
- 24 Rail
- 7 Maritime

**3x less friction**
for a wheel on rail compared to rubber on road, making rail 3x more energy efficient

**Benefits of Rail:**
The greenest mode of transport

**Numbers talk...**

**45x less external costs**
compared to road transport

- Total external cost of transport in the EU: 987 billion €
  - Rail: 18 billion €
  - Aviation: 48 billion €
  - Maritime: 98 billion €
  - Road transport: 820 billion €

**External cost of transport include:**
- Accident costs
- Congestion costs
- Environmental costs

**10x less energy consumption**
Rail transport is 10 times more fuel efficient than a private car per 100 km
The Potential

36 %
Rail Market Share – if long distance road freight is substituted by rail

Saving
40 million tonnes CO₂ per year

See also: Study analyses transhipment options for more competitive intermodal transport and terminal capacity on TEN-T network, DG MOVE, May 2022
Increase in freight traffic by 2050:

- +100% increase in freight traffic by 2050

Foreseeable number of freight wagons and locos retrofitted with Digital Automatic Coupling (including RID wagons):

- 500K

Safety improvements depend on Safety Culture and Data Sharing:

- Still accidents occur...

Relevant EU acquis linked to safe operation for Transport of Dangerous Goods by Rail:

- >15

Each actor implements its own role within a shared railway system:
Full-fledged performance of the Agency’s tasks as **EU-wide authority** for safety certification, vehicle authorisation and **ERTMS** trackside approval, as foreseen in the Technical Pillar of the Fourth Railway Package

**Policy tasks** contributing to EU railway development by **enhancing the level of interoperability** on the Union rail system and by developing Union legislation on a **common approach to safety**
A Railway Authority in action

Facts & Figures December 2022

<table>
<thead>
<tr>
<th>Vehicle Authorisations</th>
<th>Single Safety Certificates</th>
<th>ERTMS Trackside Approvals</th>
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<tbody>
<tr>
<td>4 420* delivered</td>
<td>131 Delivered</td>
<td>4 Delivered</td>
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<tr>
<td>representing in total</td>
<td></td>
<td></td>
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<tr>
<td>47 636 vehicles</td>
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<tr>
<td>78 projects ongoing</td>
<td>34 projects ongoing</td>
<td>84 projects ongoing</td>
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</tbody>
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*4086 Vehicle Authorisations in Conformity to Type, 251 Vehicle Authorisations and 83 Pre-engagement opinions

Delivery for conformity-to-type with median of 3.89 working days in December 2022

Delivery within an average time of 5,4 months
Common Safety Method ASLP will establish the digitalization of rail safety data, and will facilitate further safety improvements.

It will:
1. support operators in implementing effective Safety Management Systems;
2. support operators in monitoring of information relevant for maintaining and improving safety;
3. facilitate the sharing of relevant safety information between operators;
4. facilitate efficient safety-oriented / risk-based decision-making at all levels, including the implementation of the CSM on risk assessment and evaluation;
5. facilitate the effective supervision of the operators by NSAs and TDG CA at national level;
6. facilitate the sharing of relevant safety information on national and Union levels;
7. facilitate monitoring and harmonised safety development at Union level.
Building Capacity
A challenge for each actor

When a challenge is big, understand the context, cut problems in pieces, prioritise actions, and achieve milestones...

One by one...
### Roles and obligations

15 EU relevant legislative texts interfacing with RID

<table>
<thead>
<tr>
<th>Administrative actor</th>
<th>Responsible actor</th>
<th>Applicant (subject) actor</th>
<th>Contributing actor (or service providers)</th>
<th>Informed actor (sharing of information)</th>
</tr>
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1. Risk evaluation and assessment
2. Safety Management Systems
3. Safety authorisation of the infrastructure manager
4. Safety certification of a railway undertaking
5. Monitoring of SMS functioning
6. Assessment of operators’ safety (inc. new CSM ASLP)
7. Supervision of SMS implementation
8. Emergency situation management (planning)
9. Reporting of occurrences (inc. new CSM ASLP)
10. Investigation of occurrences
11. National rules
12. Certification of tanks
13. Vehicle authorisation of tank-wagons
14. Registration of tank-wagons
15. Maintenance of tank-wagons
Supervising NSA can be Assessor if only one MS is concerned and the RU choses this option.

ERA is Assessor if several MS are concerned or if only one MS is concerned but the RU choses this option.

Railway Undertaking (RU) RU providing the roles of keeper and/or ECM

TDG Competent authority (may be the NSA or another body)

TDG Safety Adviser

Other service providers

Keeper role as external service to the RU

ECM role as external service to the RU

Example of the Certification of Railway Undertakings
Looking Forward
Into your needs...

**OCT 2021**
Railway Safety within EU, and Bodies relationship for developing TDG railway legislation

**MARCH 2023**
What are your needs?
What are your priority topics?

**2024**
Allocate resources
Start building / reinforcing capacity

**JAN 2021**
Importance of TDG Risk Management (see Multimodal TDG RMF)

**MAY 2022**
Roles, obligations and interfaces between actors implementing TDG Directive, Railway Safety Directive, Vehicle Autorisation, and Maintenance...

**2023**
Plan topical meetings
Identify needs
Identify gaps
Your Priorities?
Tell us, then we will focus the right assistance on the right topics...

Day/Month/Year
Topic 1, target to be achieved

Day/Month/Year
Topic 2, target to be achieved

Day/Month/Year
Topic 3, target to be achieved
THANK YOU

Moving Europe towards a sustainable and safe railway system without frontiers.

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