



# *European Policies for Railways*

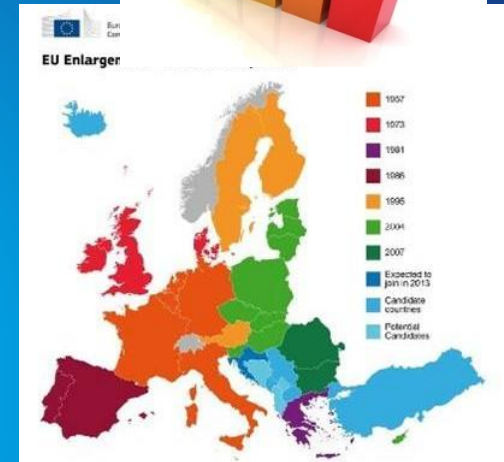
## *– Interoperable, sustainable and competitive rail*

7th TAF TSI Regional Workshop  
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Carlo De Grandis, Policy Officer  
Railway Safety and Interoperability,  
DG MOVE, European Commission

## Transport... some challenges

- An ever growing demand for transport, cannot be addressed simply by construction of new infrastructures
- EU enlargement and its sustainable development require optimisation of the whole transport sector
- A modern transport system must be sustainable from Economic, Social & Environmental points of view
- Transport is a major polluter playing a central role in current climate changes



## ... and some symptoms

*... penalizing both users & economy*



**Traffic congestion**

**Environmental nuisances**



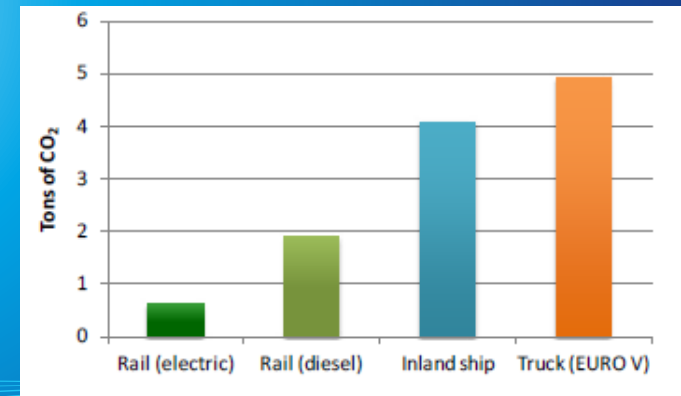
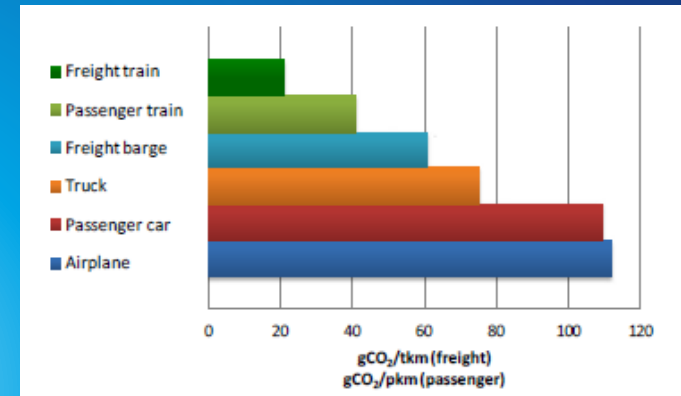
**Increased rate of accidents or of their severity**





## What about rail?

- Rail is critical to the EU strategy for improving economic and social cohesion and **connectivity**
- Railway perfectly fits EU **decarbonisation** strategy, being one of the more environmentally friendly transport modes
- The rail sector makes a substantial contribution to the EU economy, directly **employing 900,000 people...**
- ...but rail also absorbs €35 bn in yearly subsidies, translating into cost of **€80 per every European**



Source: Fifth Report on Monitoring development of the Rail Market, COM(2016) 780 final (data 2014), Rail Transport and environment 2015 (UIC/CER)

# What about rail?

From patchwork ...



to network



## Connect rail - how?

**Connecting infrastructure across borders (CEF Annex I)**

**Conect Rail with other modes - Multimodal platforms, Terminals, nodes**

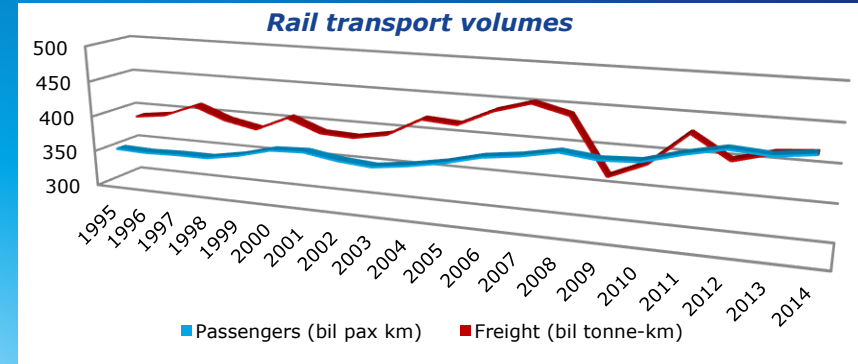
**Single EU Railway Area**

- **> Internal market**
- **< GHG**

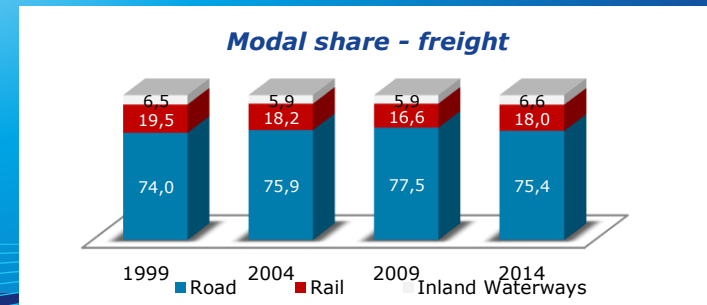
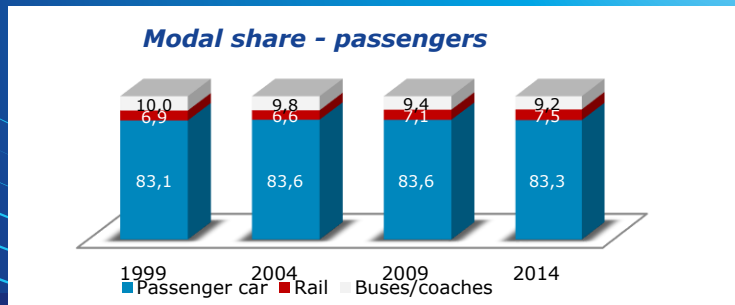
**Connecting seamlessly operations: INTEROPERABILITY, Simplification of national rules, seamless information flows**

## Recent situation...

Overall, passenger transport has been increasing since 1995, whereas freight is still recovering from 2009 crisis point

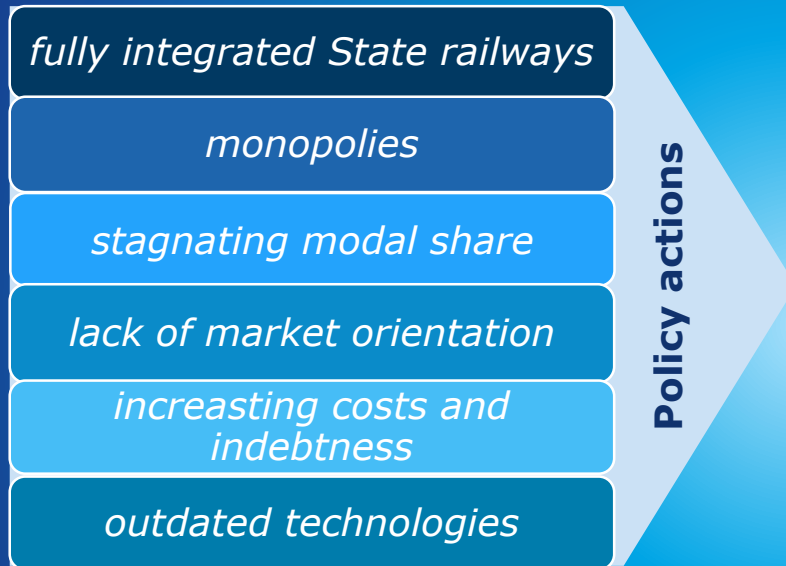


...however modal share only slightly increased for passengers and remained stagnant for freight since 2004

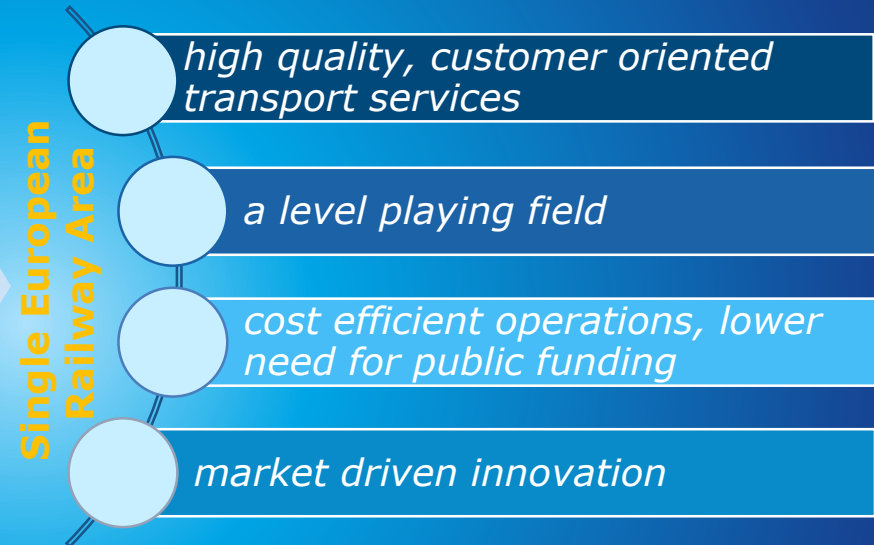


## In one slide:

Where we were...



Where we want to be

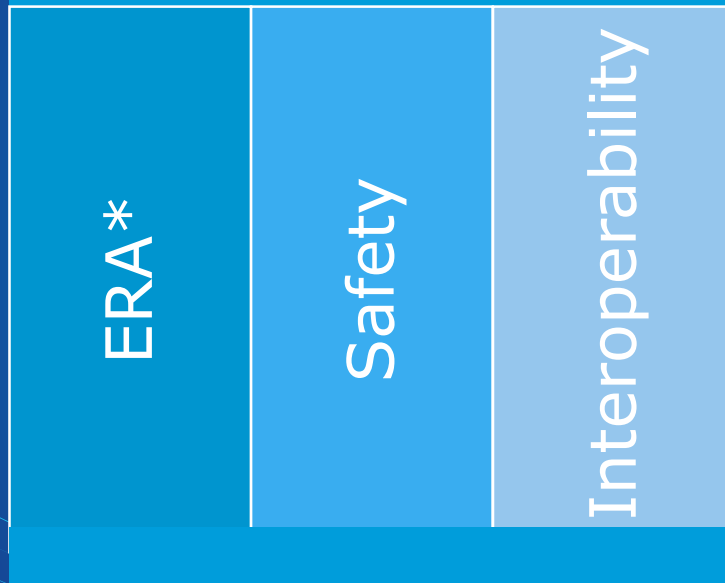


**Competitive, attractive railways**



# 4th Railway Package

## Technical Pillar



## Market Pillar



\* ERA = European Union Agency for Railways





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## What do we want to achieve

- Need to move towards more standardised rail products, as with aircraft and cars
- Reduction of national rules (still more than 11000!)
- ERA as One-Stop-Shop will lead to faster, cheaper and better coordinated procedures for vehicle authorisation and safety certification of railway undertakings
- ERA as system authority for ERTMS through issuing track-side approvals



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## Legislative Framework

- Regulation (EU) 2016/796 of the European Parliament and the Council of 11 May 2016 on the **European Union Agency for railways** and repealing Regulation (EC) n°881/2004
- Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the **interoperability** of the rail system within the European Union
- Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway **safety**.



REGULATION(EU) 2016/796 ON THE EU AGENCY FOR RAILWAYS

## An enhanced role for the Agency (1)

### The Agency will act as "ONE STOP SHOP"

- It will issue safety certificates for Railway Undertakings operating in more than one Member State and, if so requested by the applicant, in one Member State (**area of operation**)
- It will issue authorisations for placing on the market of vehicles intended to be used in more than one Member State and, if so requested by the applicant, in one Member State (**area of use**)
- NSAs will work in close cooperation with the Agency through cooperation agreements
- A new IT system to ensure an harmonised approach (OSS)
- Additional resources of the Agency to be financed by fees and charges





REGULATION(EU) 2016/796 ON THE EU AGENCY FOR RAILWAYS

## An enhanced role for the Agency (2)

### New tasks to ensure an uniform implementation of the EU framework:

- Examination of **national rules** with the right to request the removal of unnecessary ones
- Monitor National Safety Authorities and Notified bodies
- System authority for ERTMS
- System authority for telematics



DIRECTIVE (EU) 2016/797 ON INTEROPERABILITY

# An increased harmonisation towards railway interoperability

(Technical Pillar)



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# No change in 4RP



## Interoperability

Why?

Essential requirements

**Interop.  
Directive**

What?

Subsystems

**Technical  
Specifications for  
Interoperability  
(TSI)**

How?

Interoperability  
Constituents

**European  
Standards  
(EN)**

**Standards,  
specs or ERA  
Tech Doc**



## What are Technical Specifications for Interoperability?

specifications by which each subsystem or part of a subsystem is covered in order **to meet the essential requirements and to ensure the interoperability** of the Union rail system:

### Subsystems:

#### Structural areas:

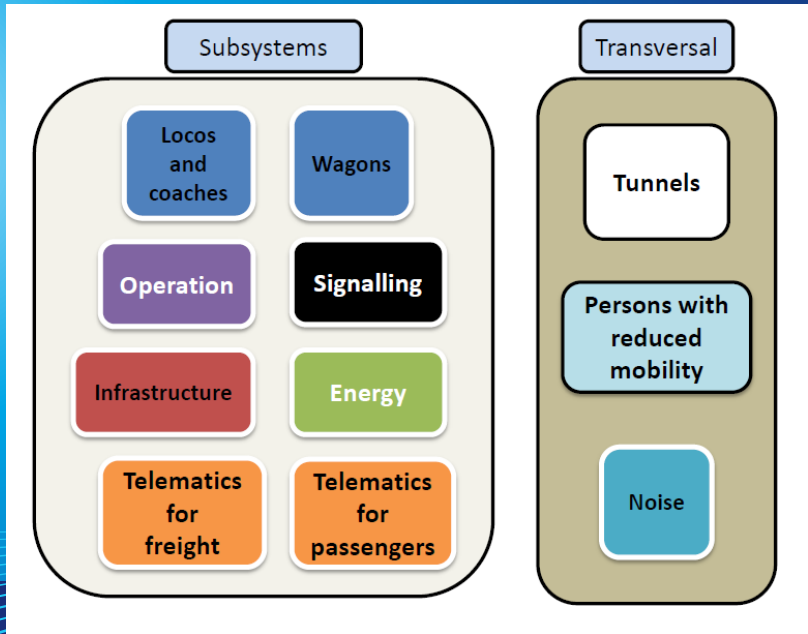
- Infrastructure
- Energy
- Trackside control-command and signalling
- On-board control-command and signalling
- Rolling stock

#### Functional areas:

- Operation and traffic management
- Maintenance
- Telematics applications for passenger and freight services



### TSIs:





# No change in 4RP



## What are Standards for?

Standardisation helps eliminate technical barriers to trade and increase market access for all operators  
→ **improved competitiveness of the rail sector.**

## European rail standards



TC	Published documents (TS, CWA and TR included)	Harmonised Standards (2008/57/EC)	In progress
CEN/TC 256	241	100	104
CLC/TC 9X	170	32	38
Total	411	132	142

**NEW**



DIRECTIVE (EU) 2016/797 ON INTEROPERABILITY

## **An increased harmonisation at EU level to improve railway interoperability**

- Alignment of definitions of NSR and NTR, stronger procedure
- Detailed rules to describe the authorisation procedure
- European vehicle register to be operational 5 years after the entry into force of the directive
- Distinction between authorisation to placing on the market and checks before use
- Convergence of criteria applicable to notified bodies and designated bodies



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**NEW**



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## A simplified authorisation process

### Before the 4RP:

- first vehicle authorisation in a MS
- + **additional** vehicle autorisations in other MSs **issued by NSA**

### Under the 4RP:

- one vehicle authorisation issued by ERA **valid in all MS**
- + **Railway Undertaking responsible** for verifying route-specific compatibility



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## ERTMS: the benefits

- **Increased capacity** on existing lines and a greater ability to respond to growing transport demands. ERTMS reduces the headway between trains enabling significantly more capacity on currently existing infrastructure.
- **Reduced maintenance costs:** With ERTMS level 2, trackside signalling is no longer required, which considerably reduces maintenance costs;
- **Higher reliability:** ERTMS may significantly increase reliability and punctuality, which are crucial for passenger transport (e.g.: Marseille-Ventimiglia benefit appraised by SNCF);
- **Improved safety for passengers**
- **Faster passenger services:** ETCS Level 2 (/3) allows exploiting the High-speed / fast lines potential – see next slide



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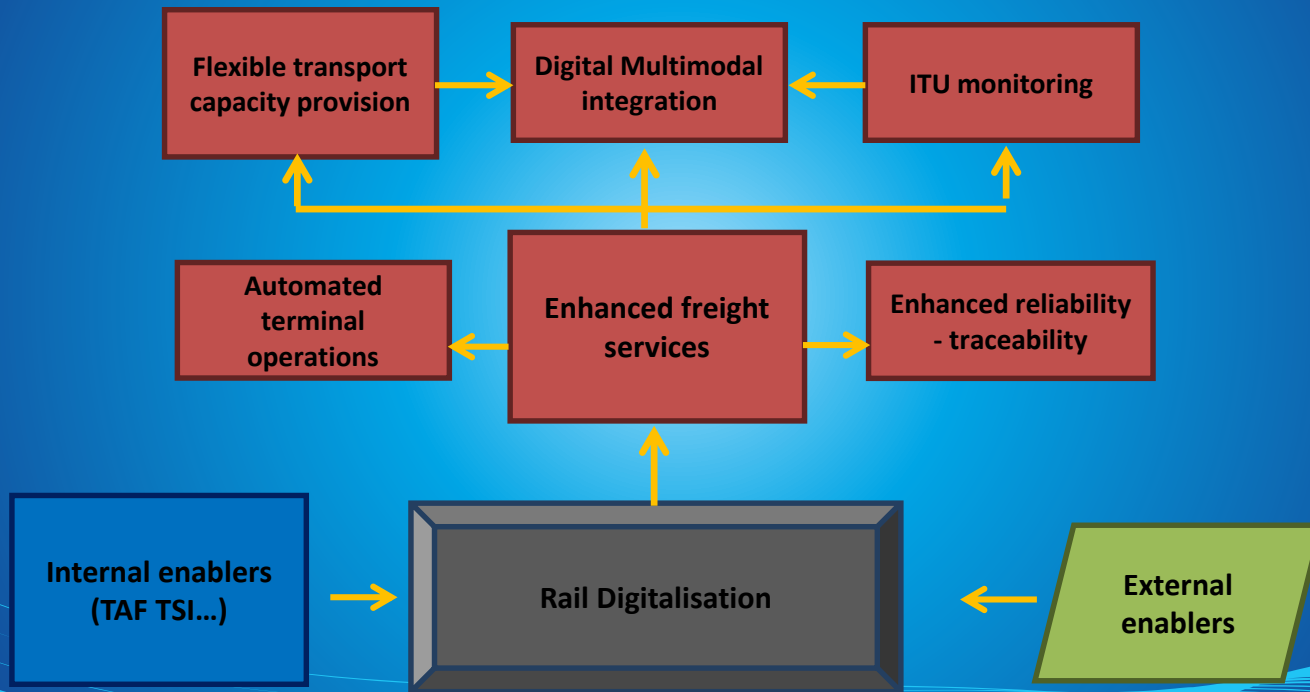
# Geographical base for ERTMS deployment: EDP ETCS Status year 2023 (4000 -> 16000 Km)



## **ERTMS evolution: the game changers as add-on**

- **A new Communication System for ETCS and Communications-Based Train Control (CBTC)**
- **Automatic Train Operation (ATO) over ETCS (L2/3)**
- **Level 3: Virtual blocks & Moving Block**
- **Safe Train Positioning (based on GNSS)**
- **On-Board Train Integrity**
- **Virtual Coupling**

# Wide rail digitalisation framework for enhanced passenger services open to multimodal





**Thank you!**