

#EUYearofRail

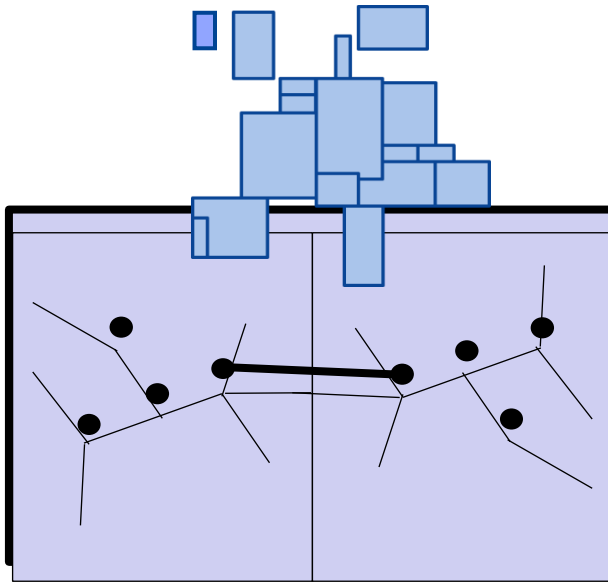


Transport Architecture and Regulation

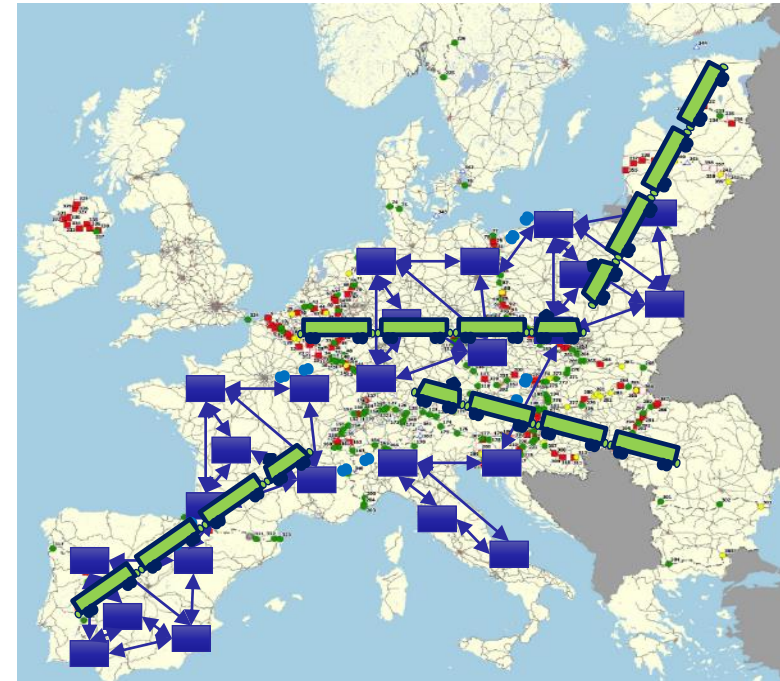
The Agency's Challenges for the Next Years

Josef Doppelbauer, European Union Agency for Railways (ERA)

European Thinking in the Rail Network



Single Rail Area - harmonised specification
Operators work seamlessly across borders (in competition)



Go everywhere operators and rail vehicles - Single Safety Certification and EU wide Authorisation (4 RP)

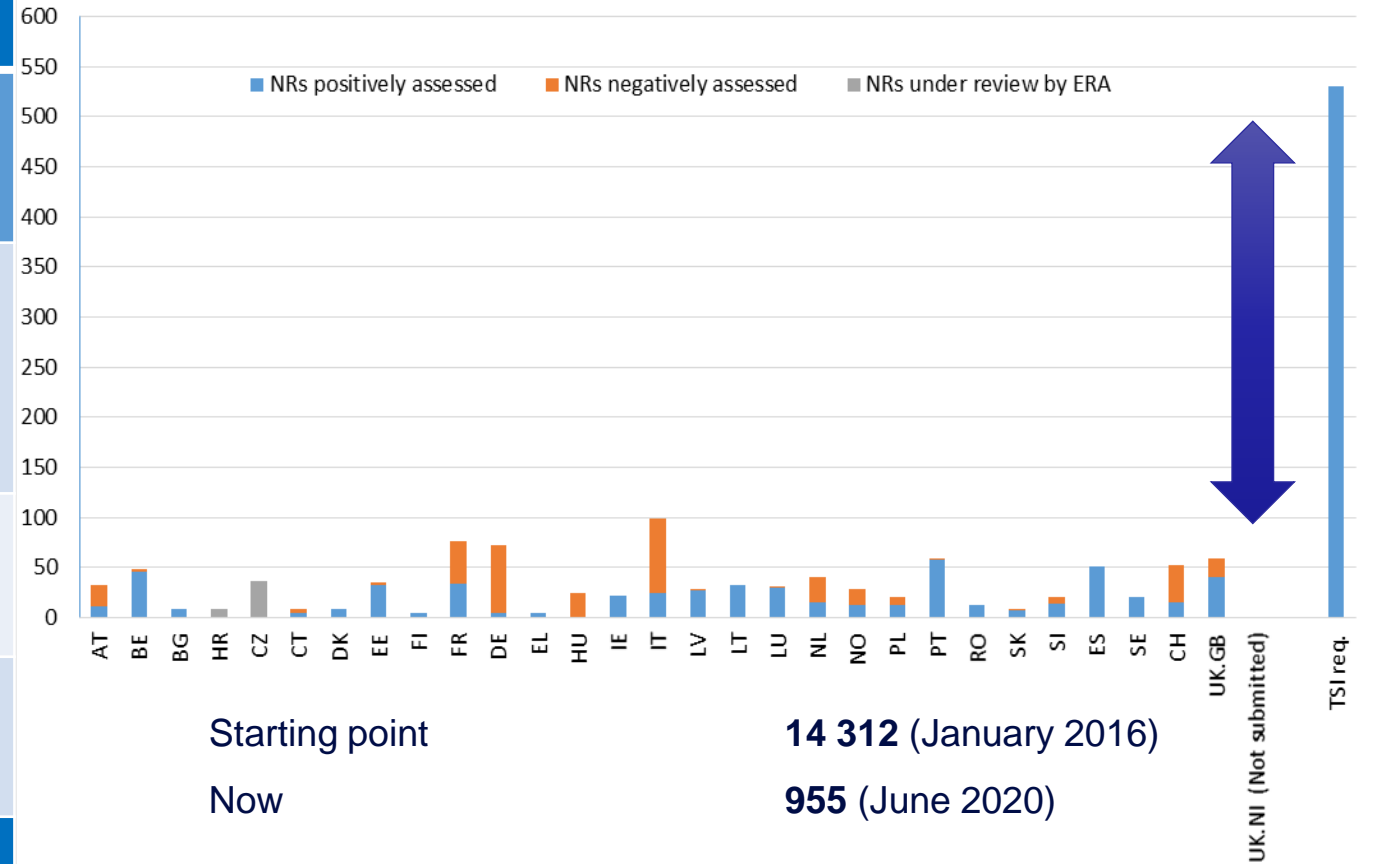
True **harmonisation of operations** at EU level - OPE TSI 2019 revision and elimination of national rules

Increased interoperability and ERTMS game changers - TSI 2022 revision

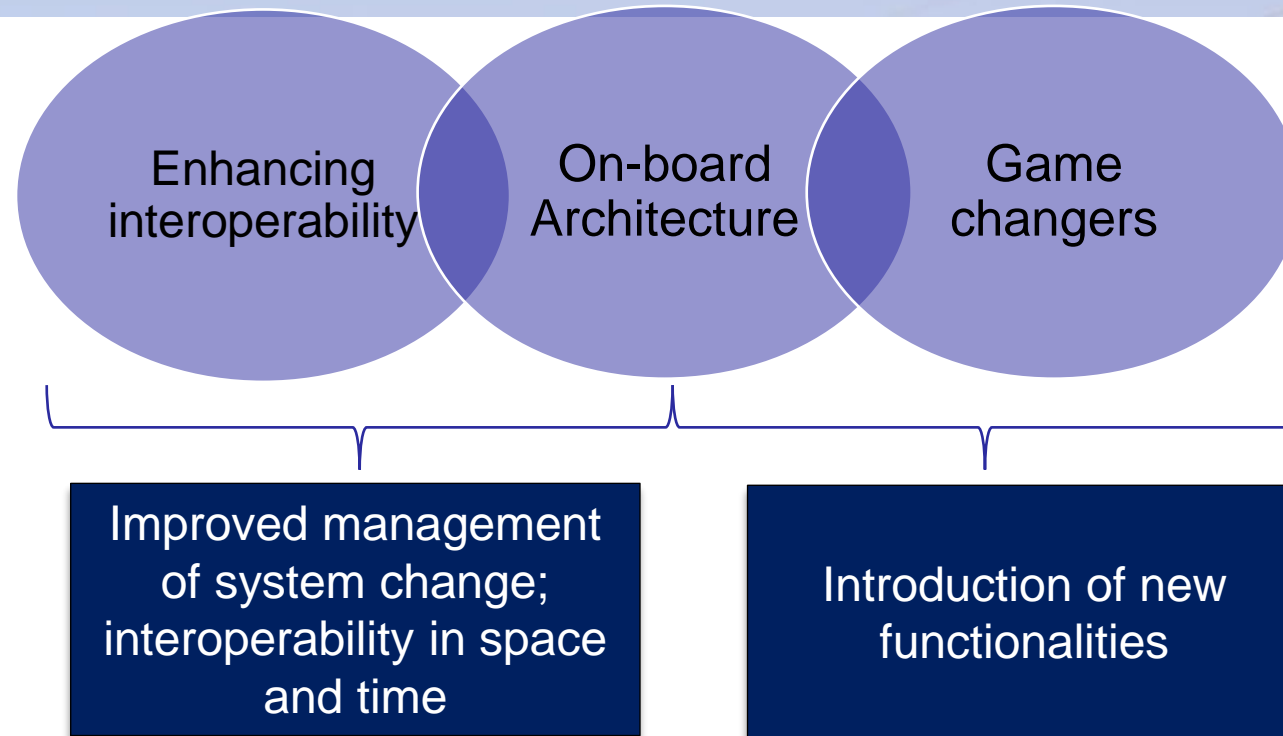
Facts & Figures (December 2020)*

Vehicle Authorisations	Single Safety Certificates	ERTMS Trackside Approvals
1221 delivered* representing in total 14488 vehicles	24 delivered	19 applications
93 projects ongoing since 15 December 2020	15 projects ongoing	19 initial engagements from which 4 closed
Delivery for conformity-to-type with median of 3 working days in November 2020	Delivery within an average time of 4,25 months	
* 1138 conformity-to-type; 30 pre-engagement baseline opinions; 45 other (4 rejected)		
(4 rejected)		
*) since 16 June 2019		

National Rules for Vehicle Authorisation



4RP provides the necessary legal context to operate railways internationally and at industrial



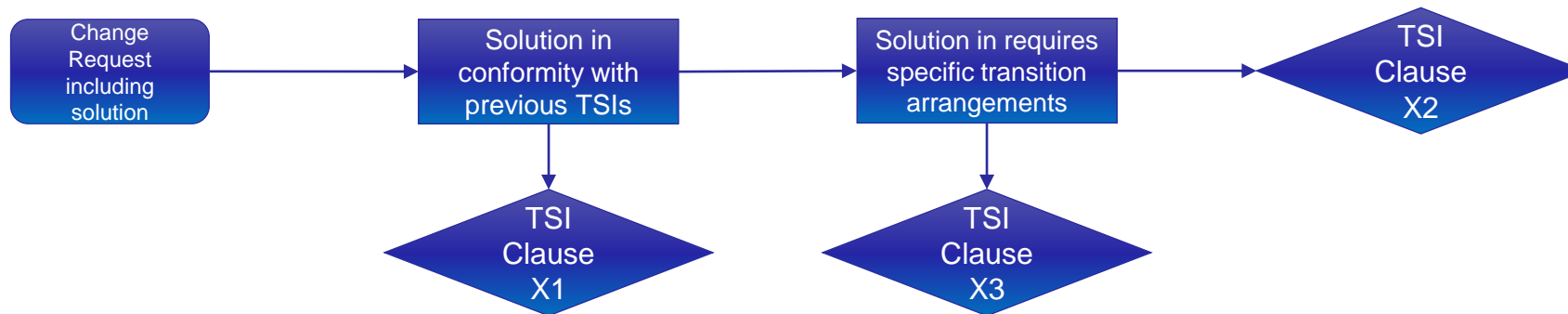
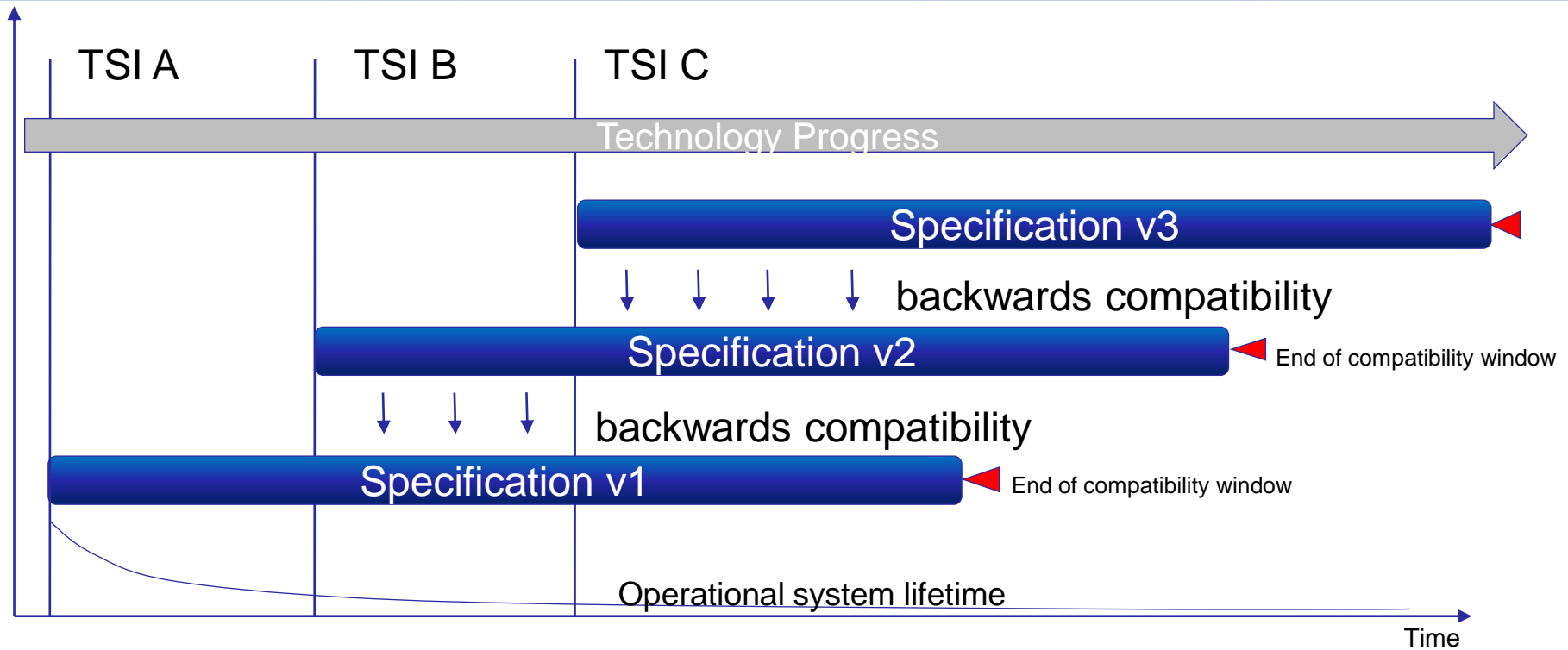
Enhancing ERTMS technical and operational interoperability

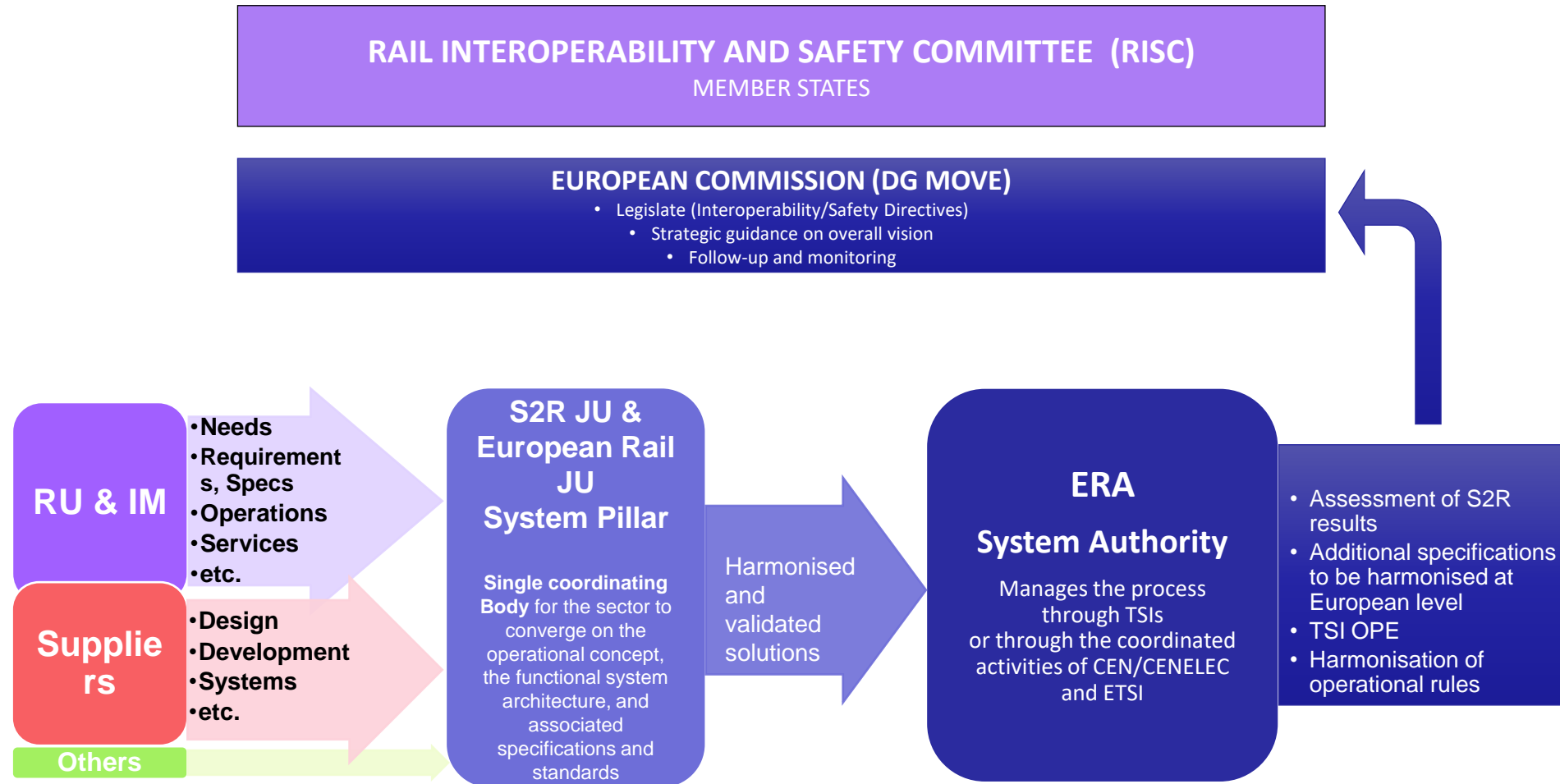
Modular on-board architecture to deliver more flexible, robust and future proof system

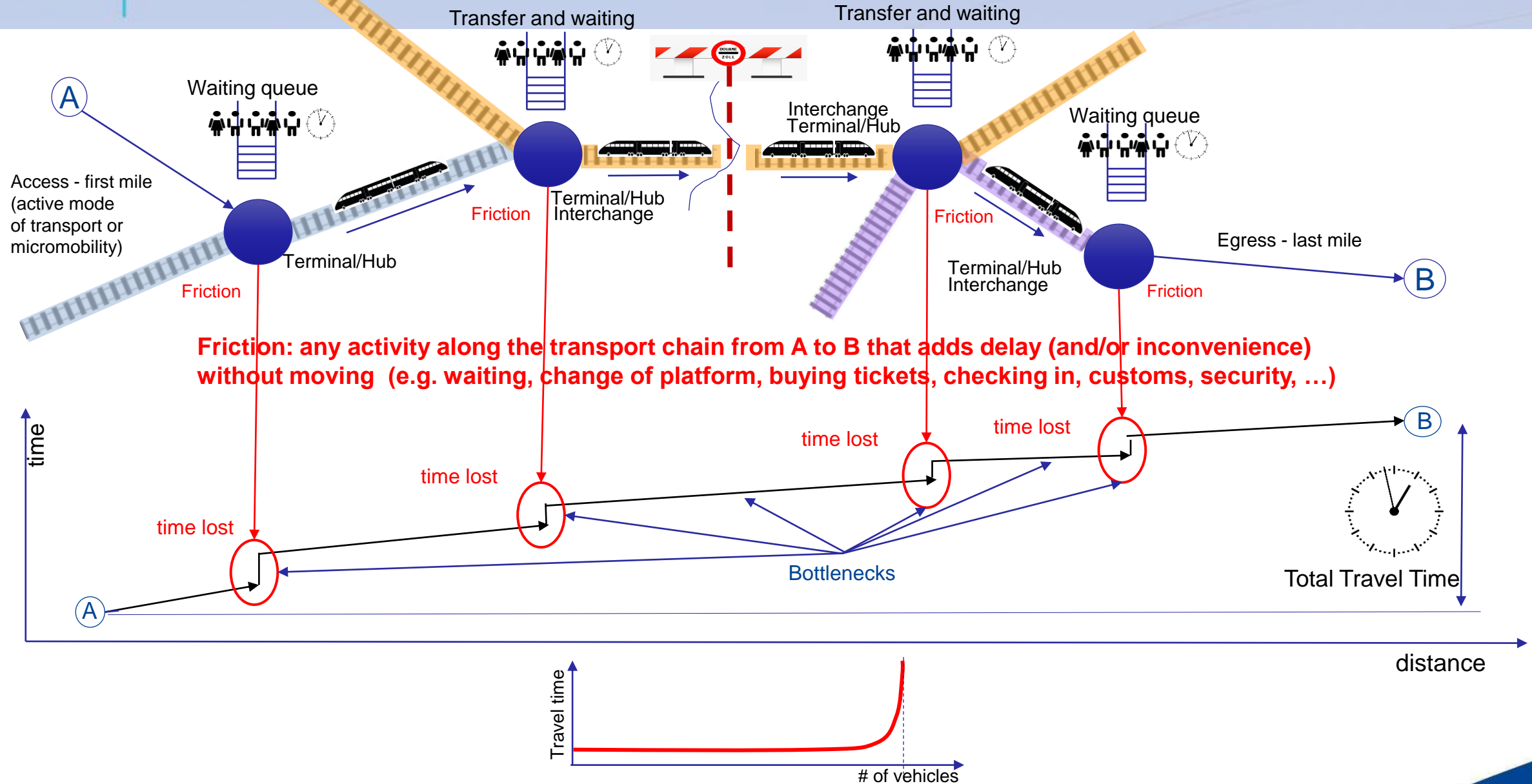
More efficient rail freight (DAC)

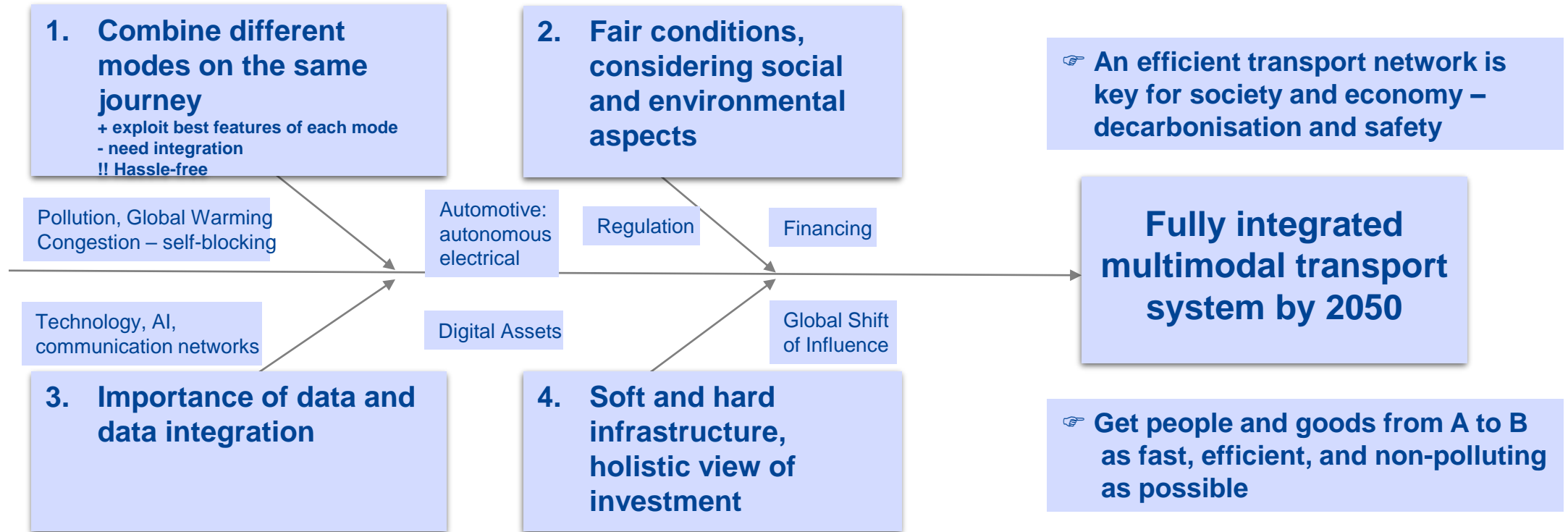
Simplifying and improving requirements on rail vehicles with a particular focus on freight

"Interoperability in Space and Time"



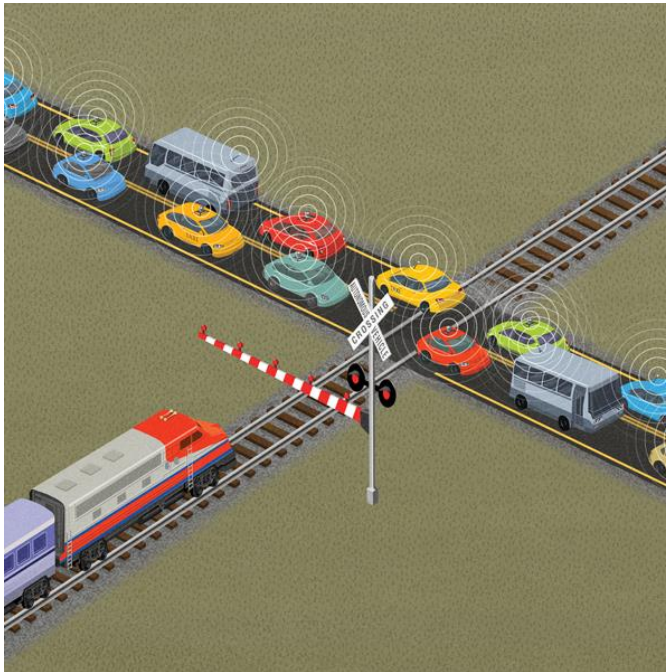






Rail is the critical component

Innovation allows the mitigation of hazards



Innovation needs to be supported by regulation

- › Rules vs risk based (TSI OPE vs SMS)
- › Design Organisation Approval
- › Staged (safety) authorisation (cf. Cybersecurity)

Step 1:
Laboratory
evidence
(confined/isolated
areas)

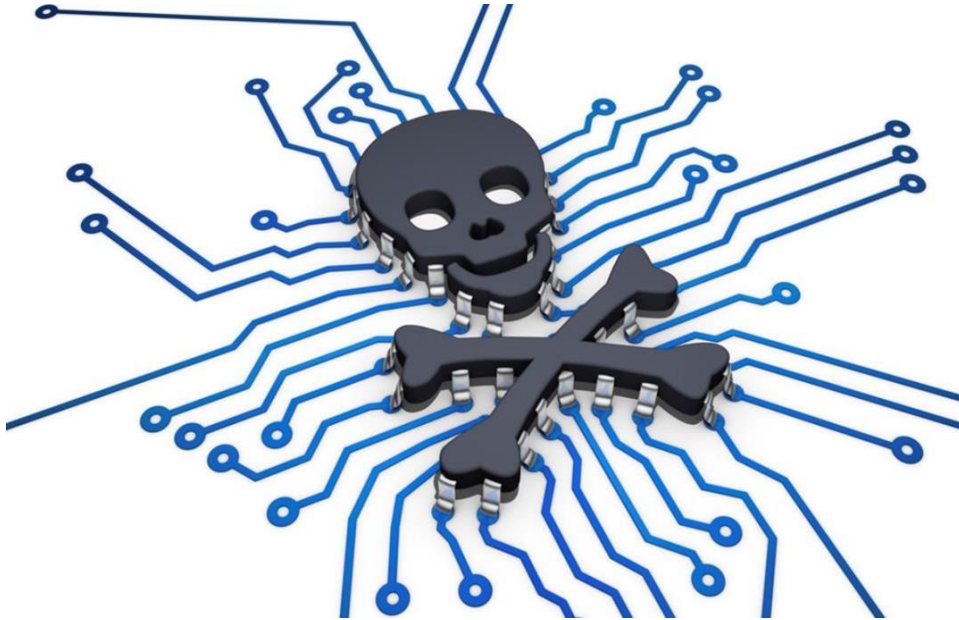
Step 2:
Supervised field
trials

Step 3:
Restricted
deployment
(defined groups
of users in
defined areas)

Step 4:
General
deployment

Holistic View of Safety

- › Cybersecurity will be a design requirement of the system – safe operation has to be solidly rooted in physical reality





Pricing of CO₂ –
“put a price on carbon”

Holistic change across the
transport system:

- achievable emission targets
for all transport modes
- binding objectives

- 4th Railway Package - a turning point for rail: **European mindset** is necessary
- Regulation to promote a **new sustainable hierarchy of transport modes**
- Rail: the most **energy-efficient** transport mode (by far)
- The different modes of transport must be integrated:
 - **Optimum transport mix** for efficient and sustainable transport of people and goods, while respecting **European coherence in digitalisation**
 - Integrated requirements for multi-modality to avoid "friction", with capacity management and path allocation and a **holistic view of transport safety** at EU level
- An EU-wide responsible organisation, such as a **Land Transport Agency**, should be entrusted



Thank you!

Making the railway system work better for society.

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