European Railway Agency

An agency of the European Union

Remarks on the Performance of the European Railway System

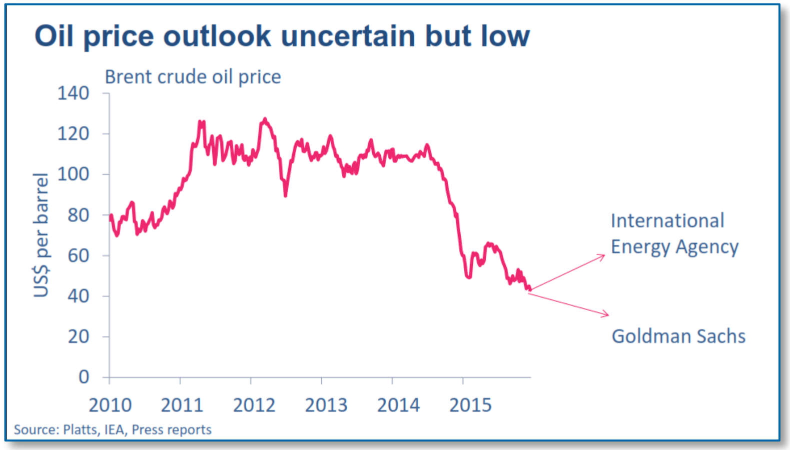
12th Florence Rail Forum

Fiesole, 02 May 2016

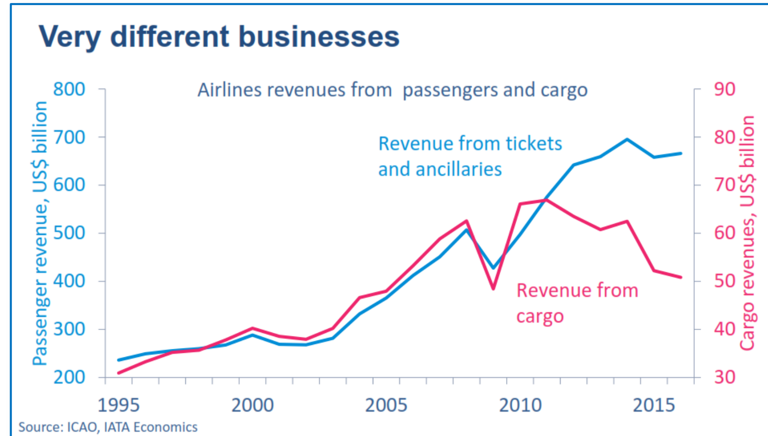
Josef DOPPELBAUER, Executive Director

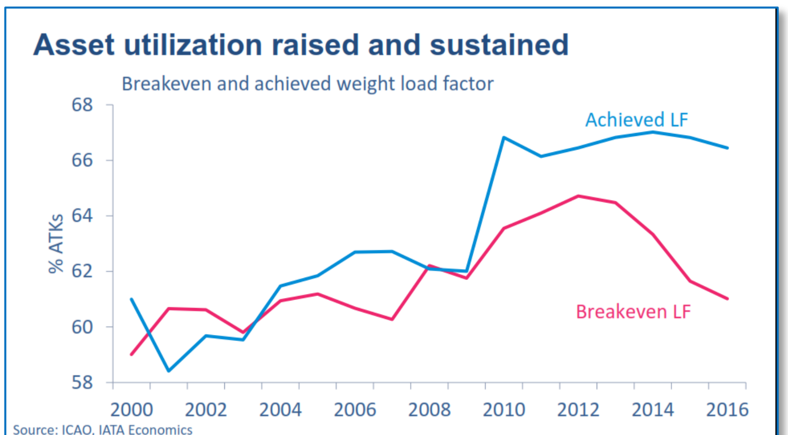
Benchmarking in Aviation

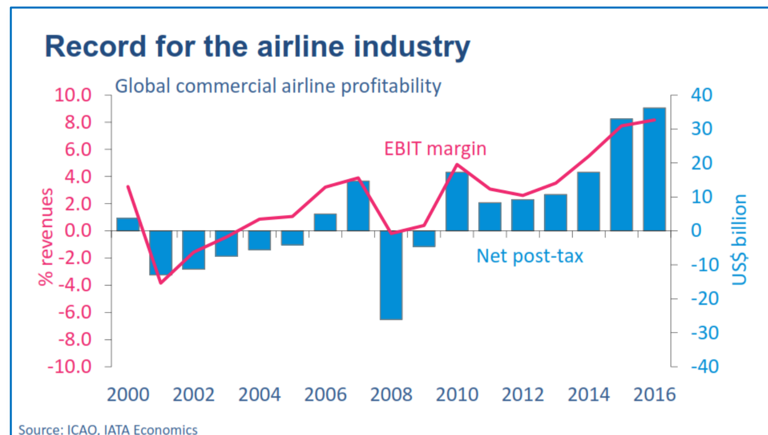
Economic Environment



Revenues







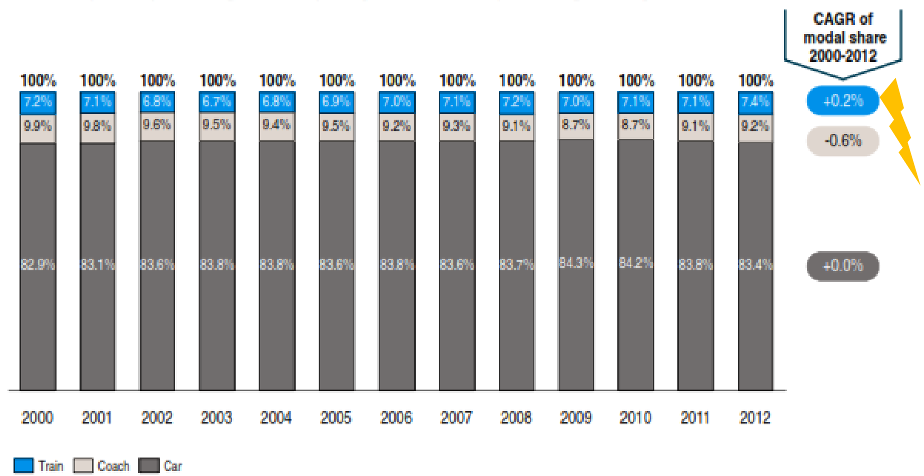
Asset utilization

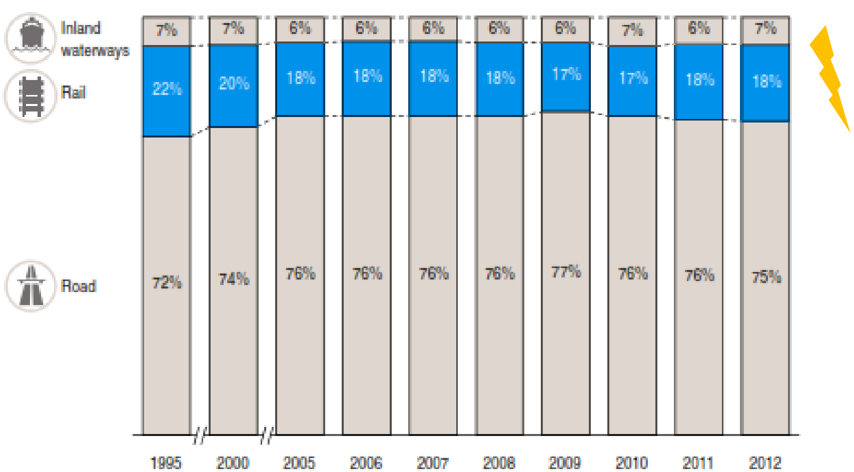
Profitability

Source: IATA 2015

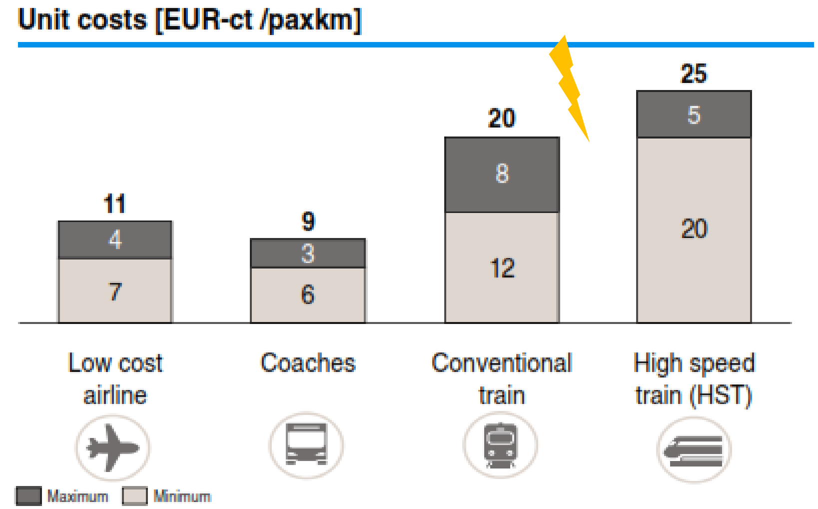
Some Facts about Railways in Europe

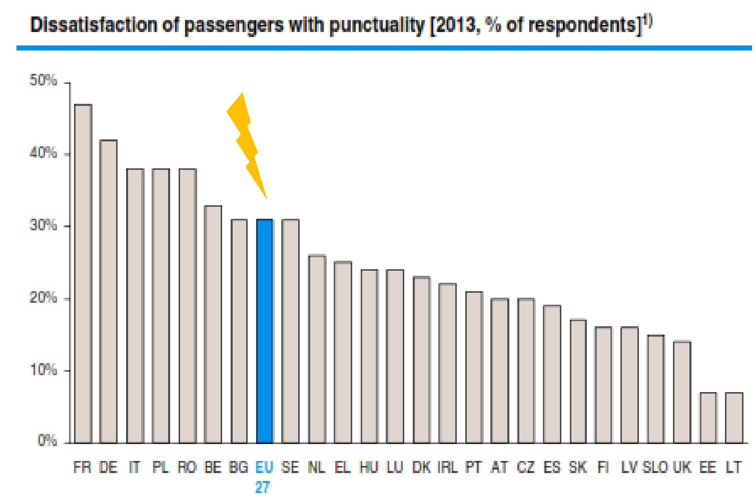
Modal split of passenger transport [EU-28, % of passenger-km]





Cost level per transportation mode





Source: Roland Berger, Eurostat

European railways have issues with cost, quality, and market share

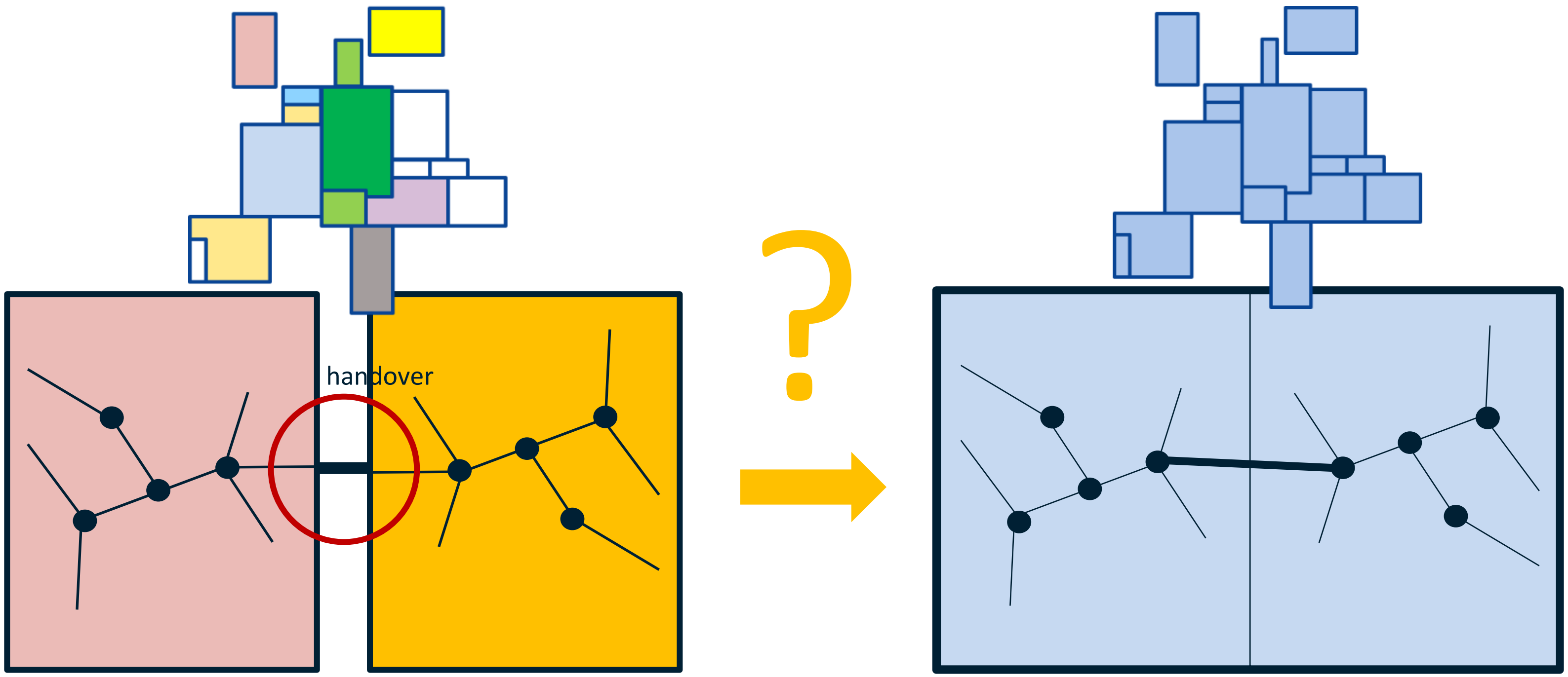
Rail is in Competition with Other Transport Modes …

	Rail Pax	Rail Freight	Automotive	Aviation	Maritime
Traffic pattern	mostly national	international significant		international	international
National regulations	yes (move to European)	yes (move to European)	minor restrictions	international	international
National products*	yes	yes	no**	no	no
National operating rules	yes	yes	no	no	no
Global supply chain	partly	partly	yes	yes	yes

Cost and Quality of products are a function of
Volume and **Global Supply Base**

* Vehicles/Rolling Stock and Controls Systems

** except for Road Pricing



National network A

Domestic monopoly operator A

National network B

Domestic monopoly operator B

Single Rail Area - harmonised specification

Operators work seamlessly across borders (in competition)

"More than 95 % of our traffic is domestic"

A Comparison within the Rail Sector ...

Country	Length of High-Speed* Network (km)	# of High-Speed Trains
China (2016)	19 000	4 000
China (plan 2020)	30 000	7 500 (estimated)
France	2 000	400
Germany	1 300	250
Spain	3 100	150
Italy	1 350	100

* High-Speed > 200 km/h

Customer Driven

Single European Railway Area

Attractive for Customers

Innovation & digital technologies

EU-wide regulation & processes

Less Fragmentation

Cost down - Quality up

Cooperation & competitive operation

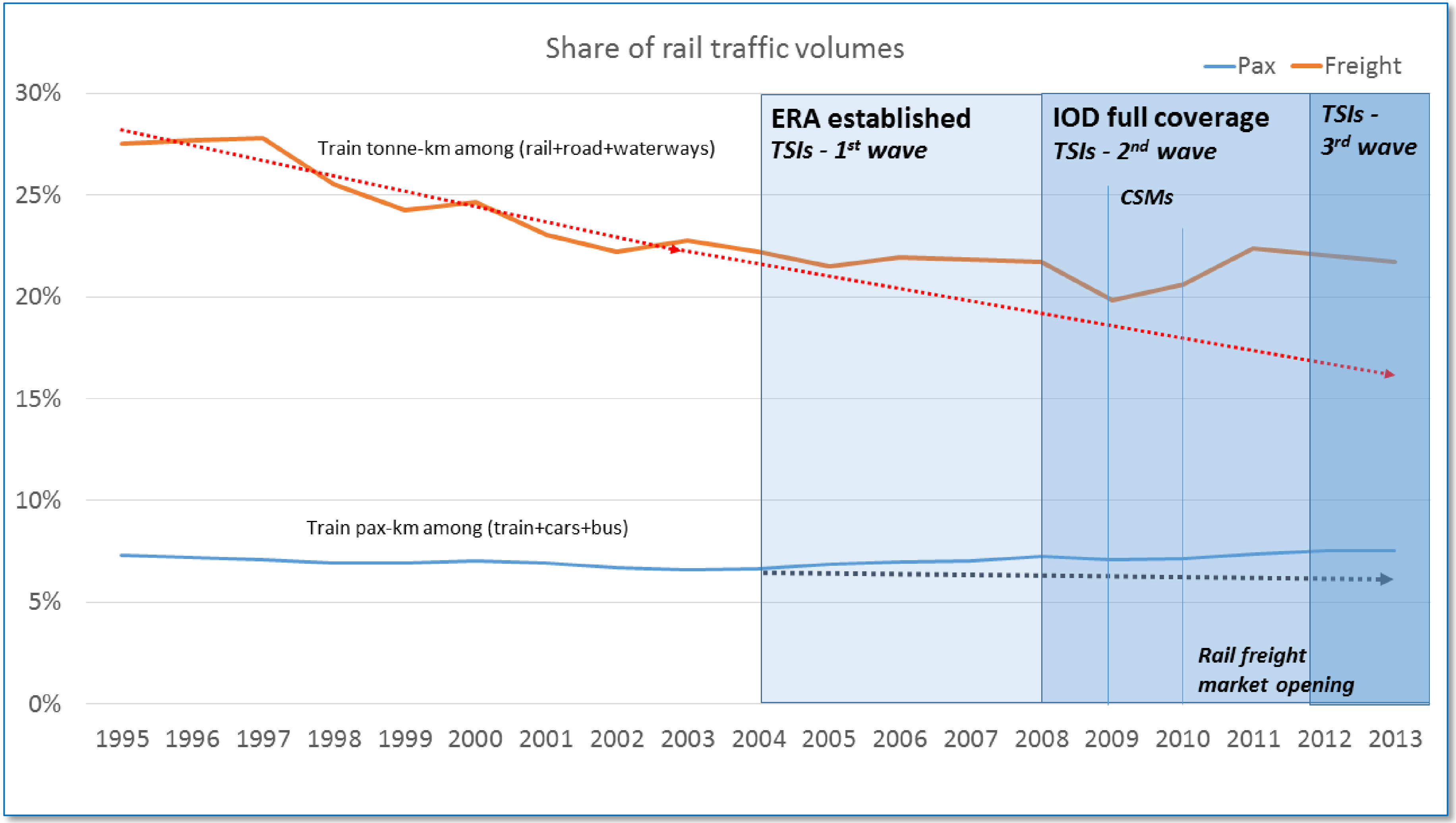
Technical harmonisation, in particular ERTMS

Interoperability

Market Orientation

Global Reference

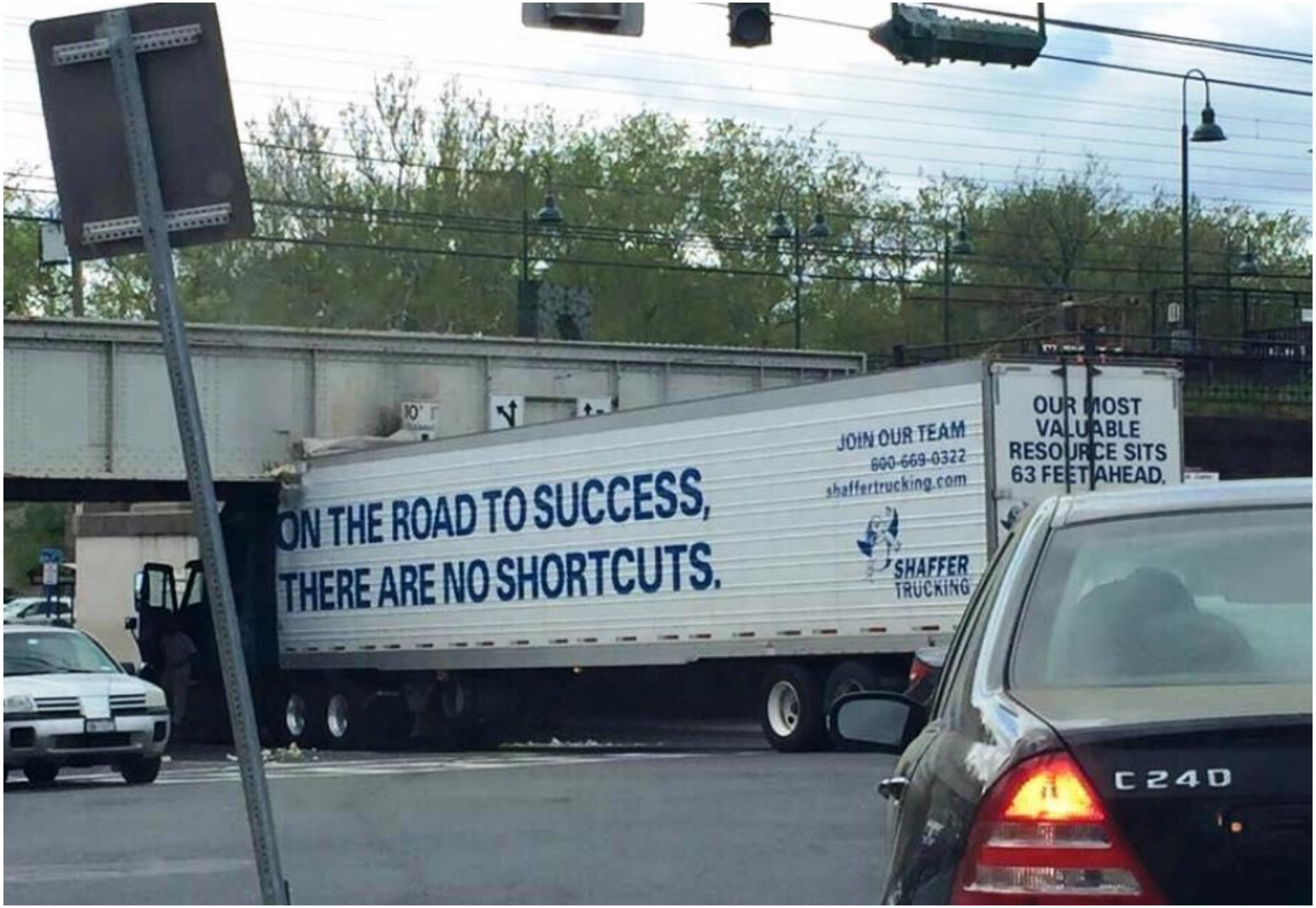
What has **ERA** ever Done for Us?



How Should Legislation Evolve?

Now	Drivers of Change	KPIs
High **costs** of production Low **asset utilization** Low **flexibility** and **adaptability**	Business performance **Reduction of system costs** **Equal playing field (externalisation)**	• Business model • Rail network capacity • **System costs** • Asset utilization • **External costs**
Long **lifetime** of rail assets and low appetite for **innovation** and **digitalisation**	'Migrateable' technology	• Standardisation and cooperative innovation • Rate of absorption of new technologies • **Response to customer expectations** • Migration, introducibility, interferences
Fragmentation and high **regulation**	**Regulation to create incentives for change**	• Balance between regulation and self-regulation • Full implementation of TSIs and 4th Railway Package • **Market opening** • **Incentives for performance/quality**
Low levels of **quality** Low level of **punctuality** Low level of **reliability**	**Incentivize the increase of system quality**, (re)gain trust	• **Market opening** • **Stabilized system output** • Trust in rail services

Don’t End Up in the Railway Museum


ON THE ROAD TO SUCCESS,
THERE ARE NO SHORTCUTS.
JOIN OUR TEAM
800-669-0322
shaffertrucking.com
SHAFFER
TRUCKING
OUR MOST
VALUABLE
RESOURCE SITS
63 FEET AHEAD.
C 240

Making the railway system work better for society.

era.europa.eu

Follow us on Twitter: @ERA_railways