UIRR
INTERNATIONAL UNION FOR ROAD-RAIL COMBINED TRANSPORT

Sino-German Cooperation on Low Carbon Transport

INTERMODAL TRANSPORT: NOTEWORTHY POSSIBILITIES

Ralf-Charley SCHULTZE
President

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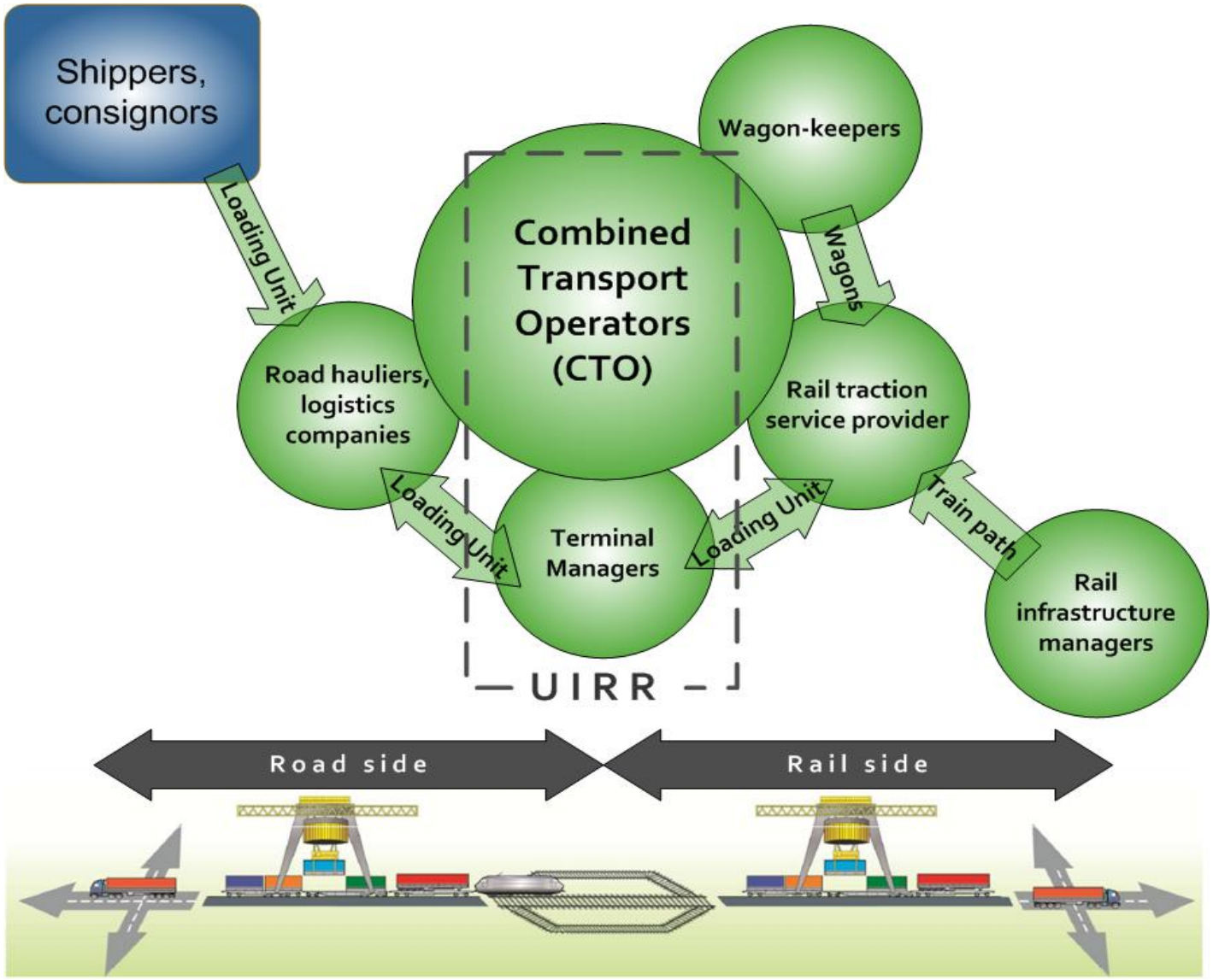
6. **Intercontinental activities** of UIRR members

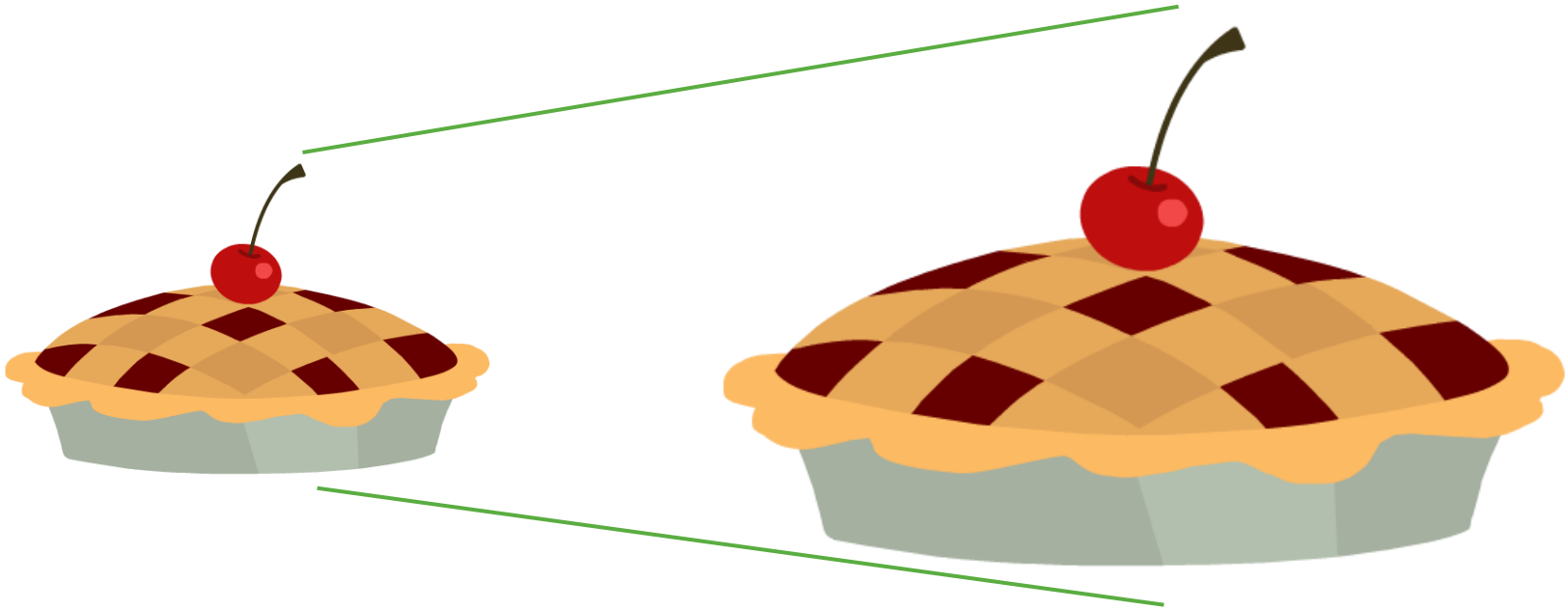
UIRR - Overview

- **Members**: Combined Transport Operators and Terminal Managers, who create the link between road and rail
- **Homogeneous interest of all members**: modal shift from road to rail,
- **Logistics companies**: customers as well as shareholders of UIRR Members
- **Performance**: UIRR Members handled about 50% of European Combined Transport in 2015
- **The Industry Association**:
  UIRR founded in 1970
  - seat in Brussels since 1988

Position of UIRR Members within value-chain



Grow the pie for Combined Transport



through **fair competition** on the basis of

1) technical merit

2) management competence

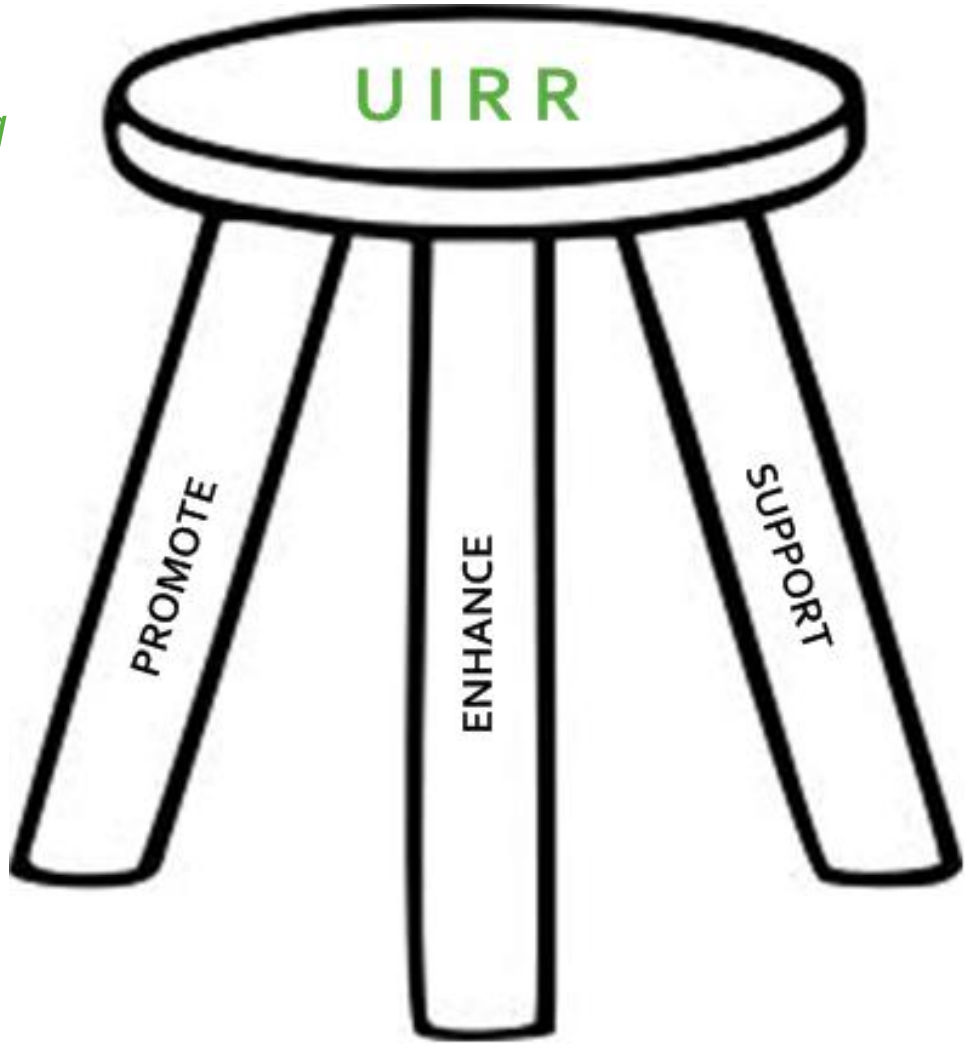
UIRR - Strategy

*UIRR is an **industry association** which*

*- **PROMOTES** the public understanding and appreciation of Road-Rail Combined Transport,*

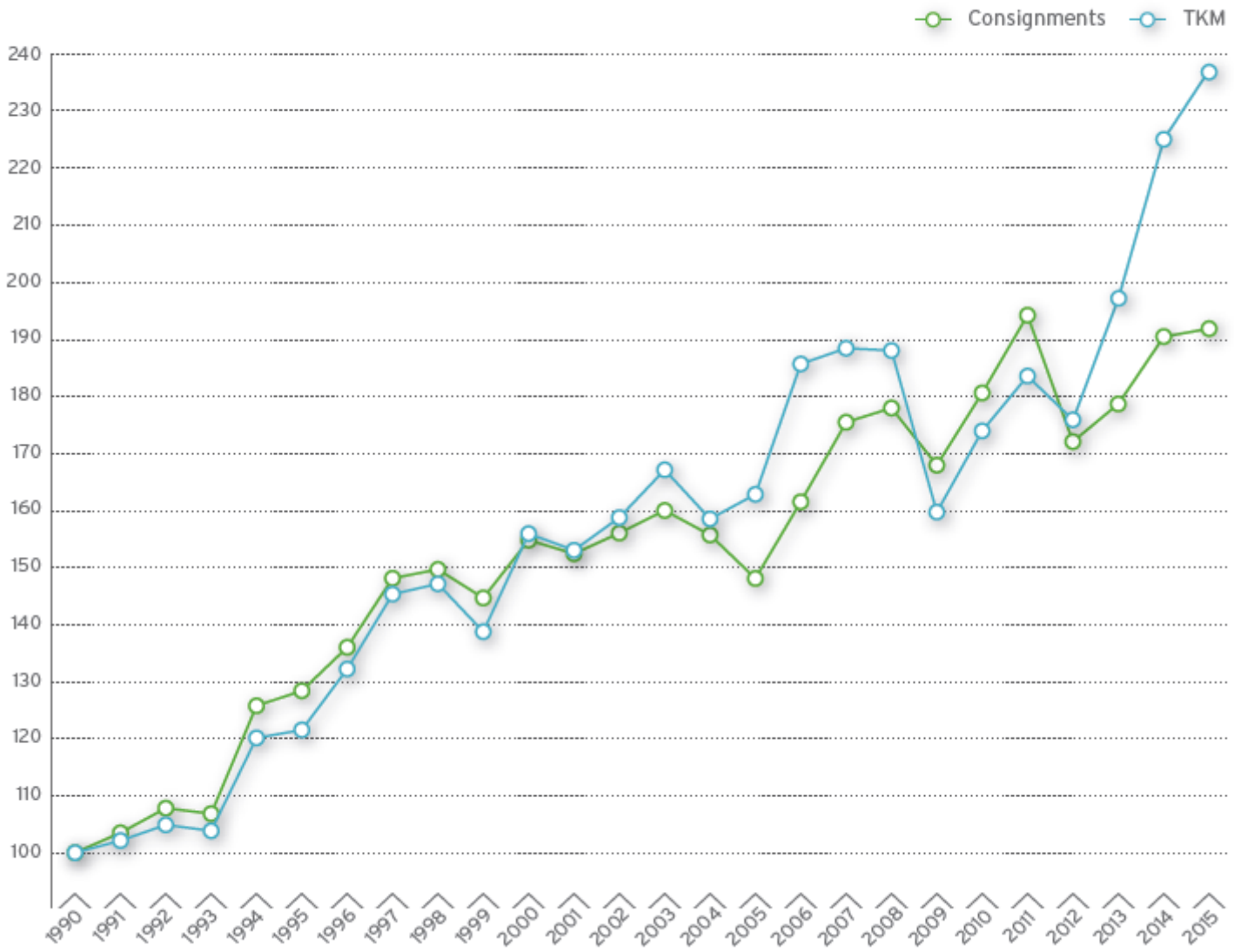
*- **ENHANCES** its development and the proliferation of industry best practice,*

*- **SUPPORTS** the daily operation of European Combined Transport with a series of services*



UIRR – Growth index of Members 1990 – 2015

(REFERENCE YEAR: 1990 = 100)



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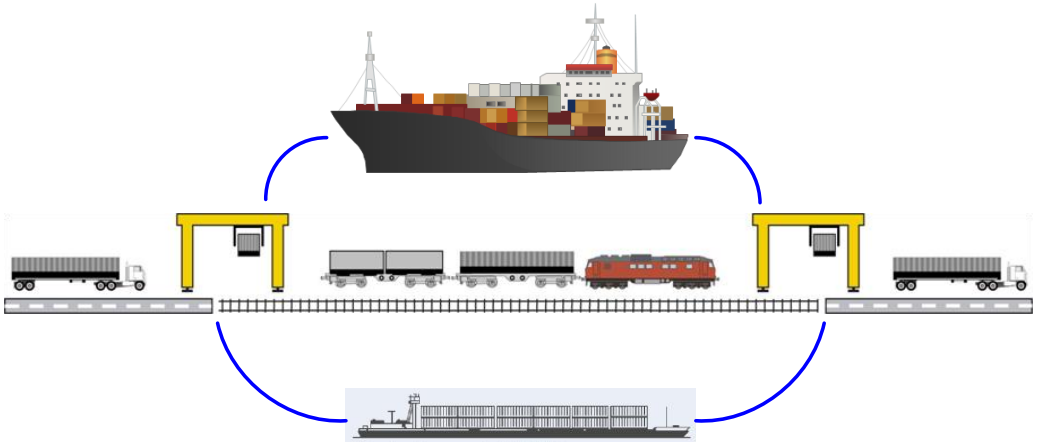
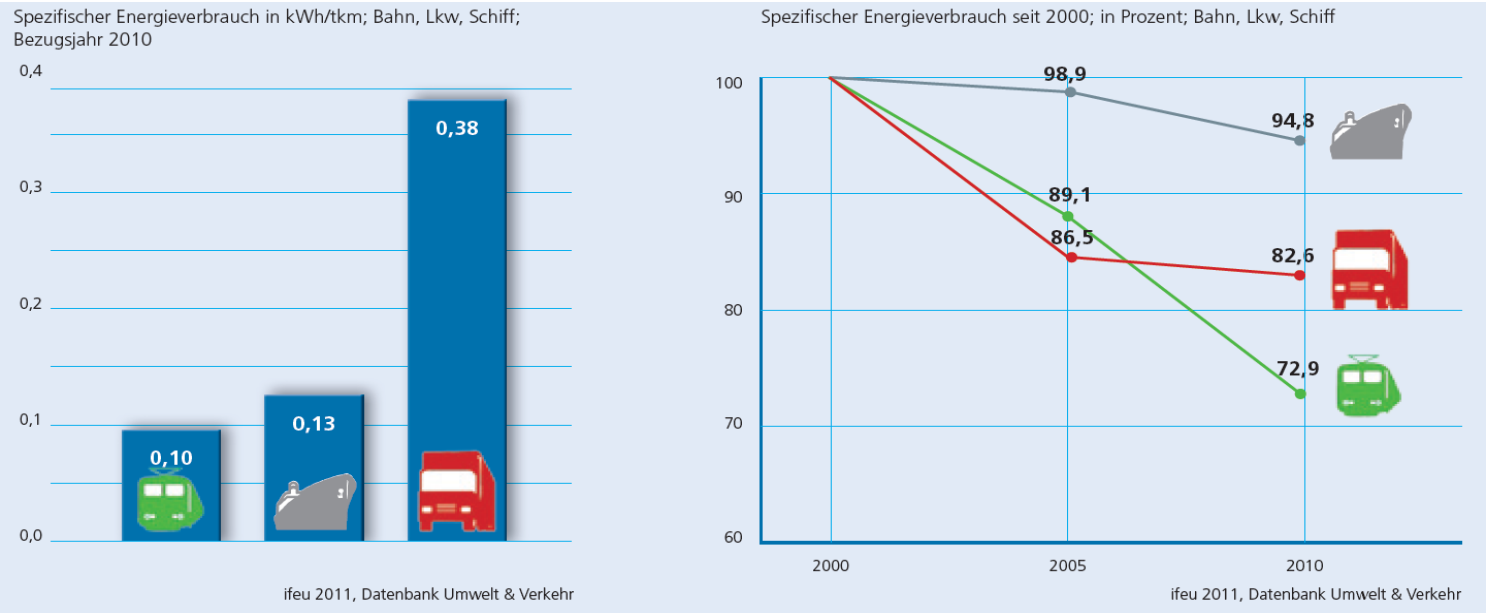
Intermodal Transport:

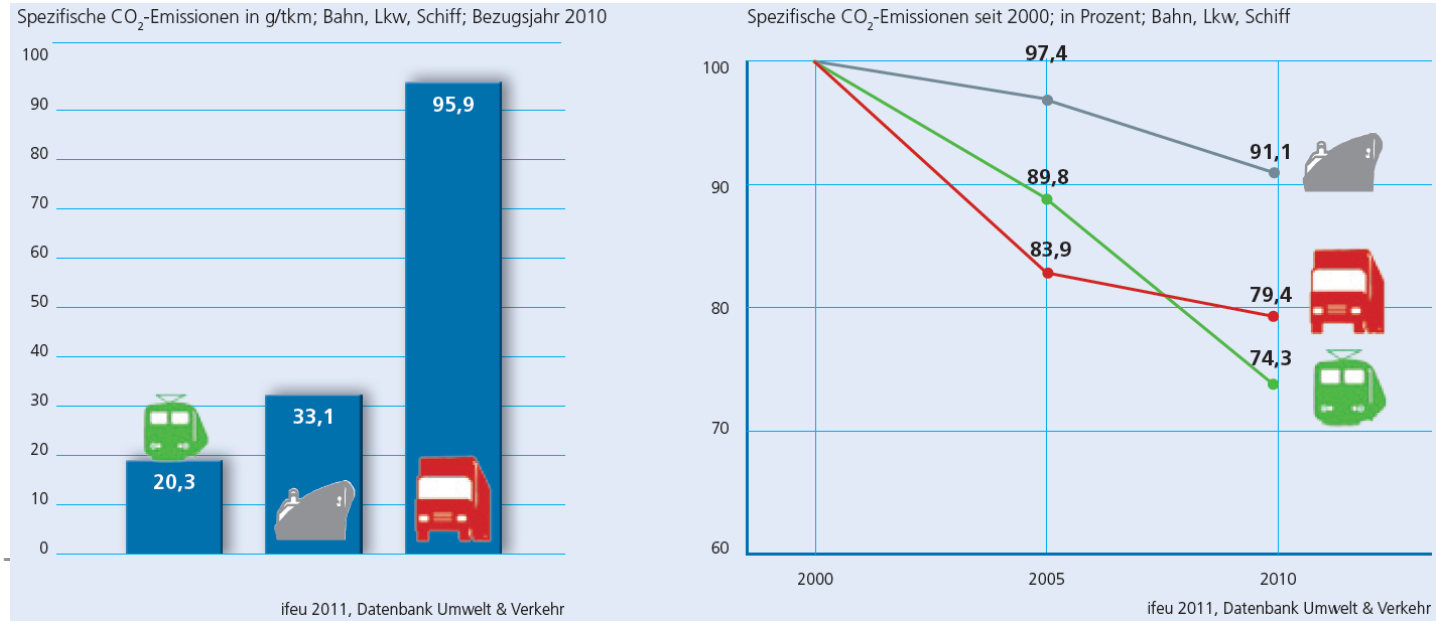
The most efficient way to insert ecologically sustainable modes of transport – like electric rail, inland navigation and short sea shipping – into long(er) distance transport-chains



Intermodal/Combined Transport in Europe

Primary energy need and CO_2 performance of modes





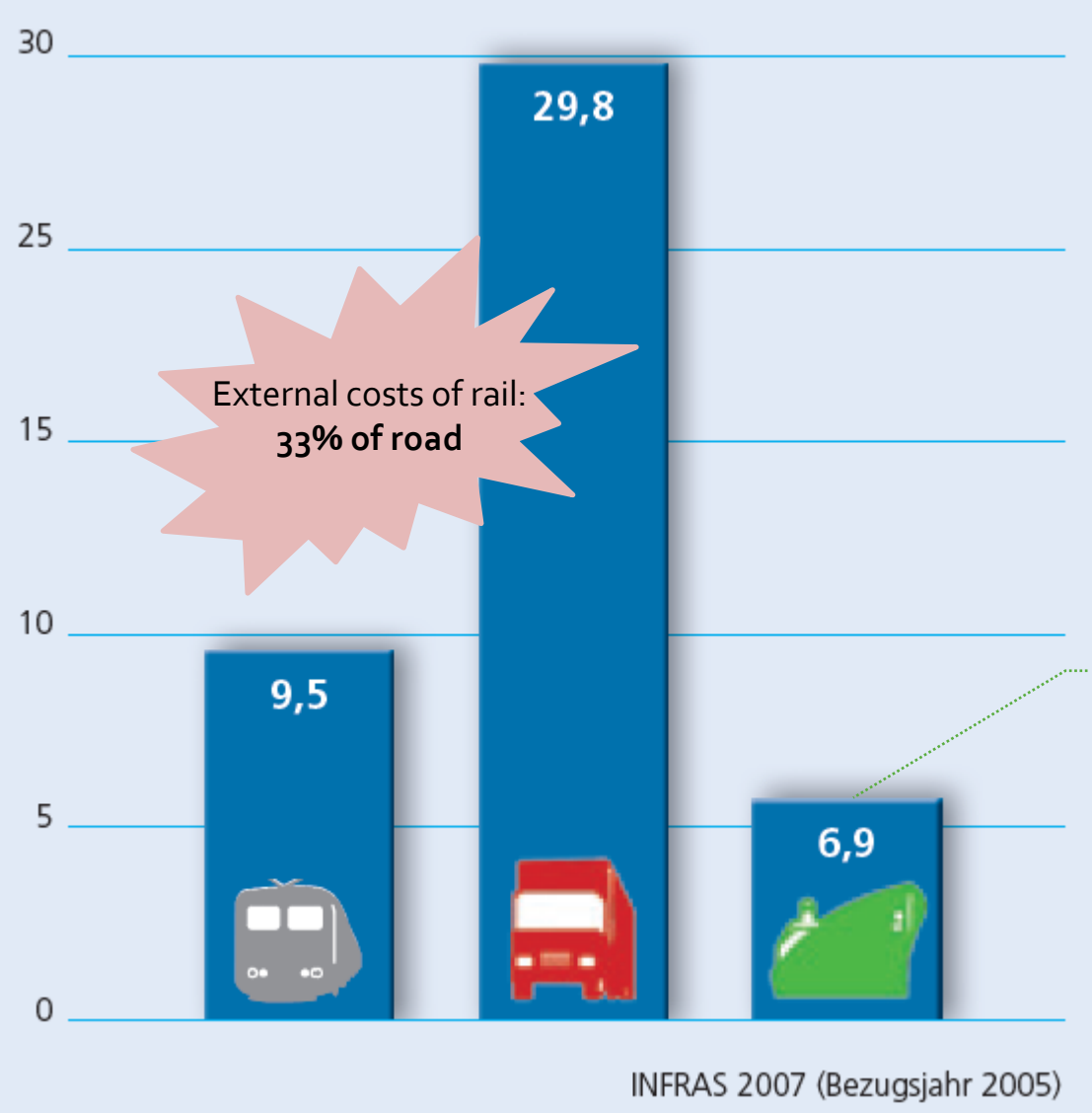
Safety performance comparison

Safety category	Road	Rail
Fatalities in 2009[1]	35 000	34
Accident occurrences: (i) road[1] and (ii) rail[2]	1 200 000	1152
Accident occurrences: (i) HGVs, (ii) freight trains	31 per 100M vkm[2]	1,05 per 100M vkm[3]
Accident externality cost of (i) HGVs on motorways, and (ii) trains	€68 667 per 100M tkm[4]	€238 per 100M tkm[5]

Road haulage is 30-times as accident prone as rail

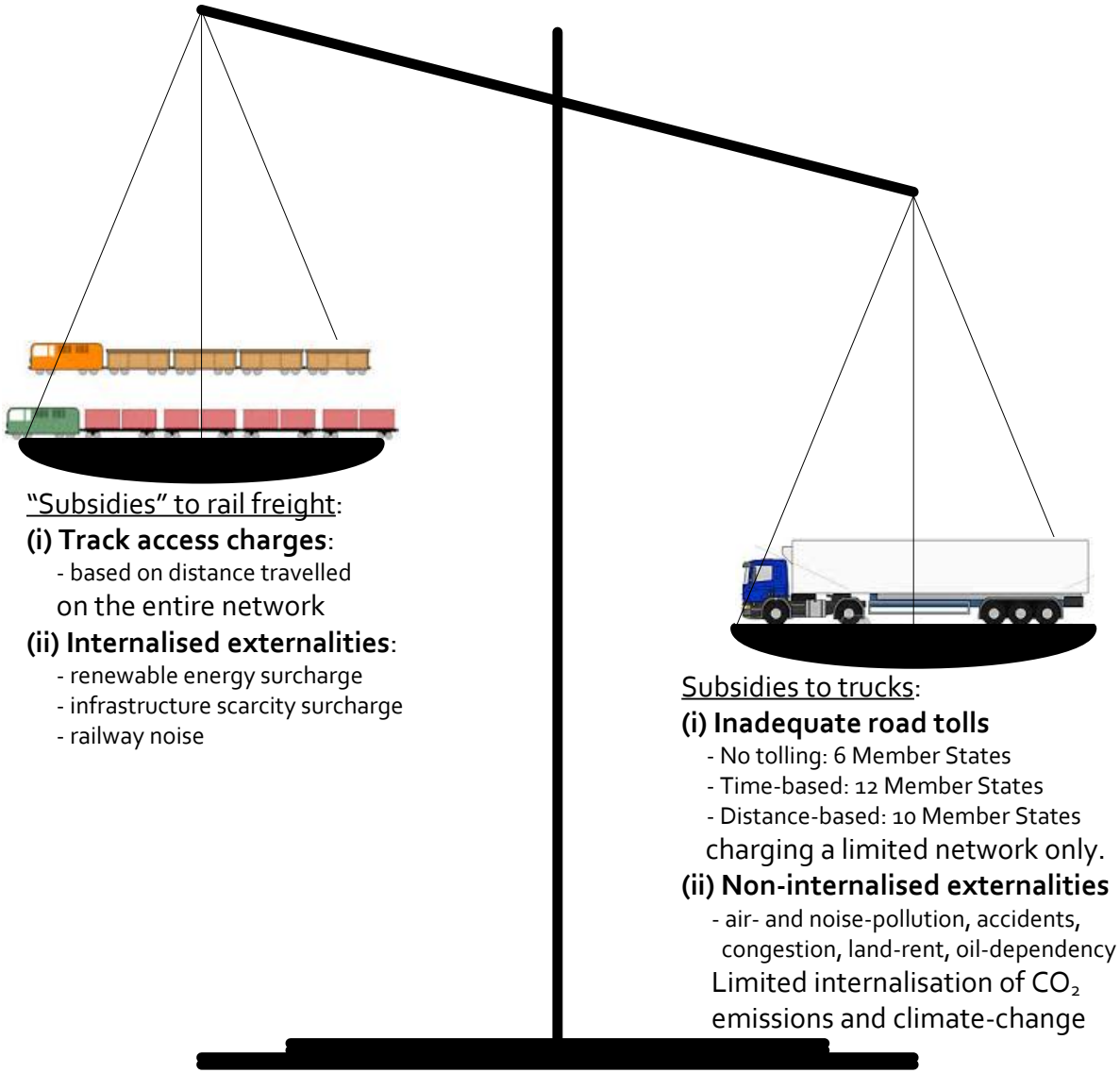
[1] *Source: EC EU transport in figures [2011]*
[2] *Source: Alan C McKinnon at 2nd IRU/EU Road Transport Conference: "31 per 100M vkm" [2012]*
[3] *Source: ERA 2011 Rail Safety report figure (tkm) converted to (HGV) vkm @ 30t/vehicle rate [2011]*
[4] *Source: CE Delft IMPACT Study (internalisation handbook) converted into tkm @ 30t/vehicle rate [2008]*
[5] *Source: CE Delft IMPACT Study (internalisation handbook) converted into tkm @ 800t/train rate [2008]*

External costs of modes



Ro-Ro and smaller vessels perform worse

The relative competitive situation of modes



"Subsidies" to rail freight:

(i) Track access charges:
- based on distance travelled on the entire network

(ii) Internalised externalities:
- renewable energy surcharge
- infrastructure scarcity surcharge
- railway noise

Subsidies to trucks:

(i) Inadequate road tolls
- No tolling: 6 Member States
- Time-based: 12 Member States
- Distance-based: 10 Member States

charging a limited network only.

(ii) Non-internalised externalities
- air- and noise-pollution, accidents, congestion, land-rent, oil-dependency

Limited internalisation of CO_2 emissions and climate-change

Two principles should be equally upheld:

- user-pays

- polluter-pays

*The **de-politicisation** of transport - no more budget transfers - would be needed to make transport **truly market based and competitive** in a fair manner.*

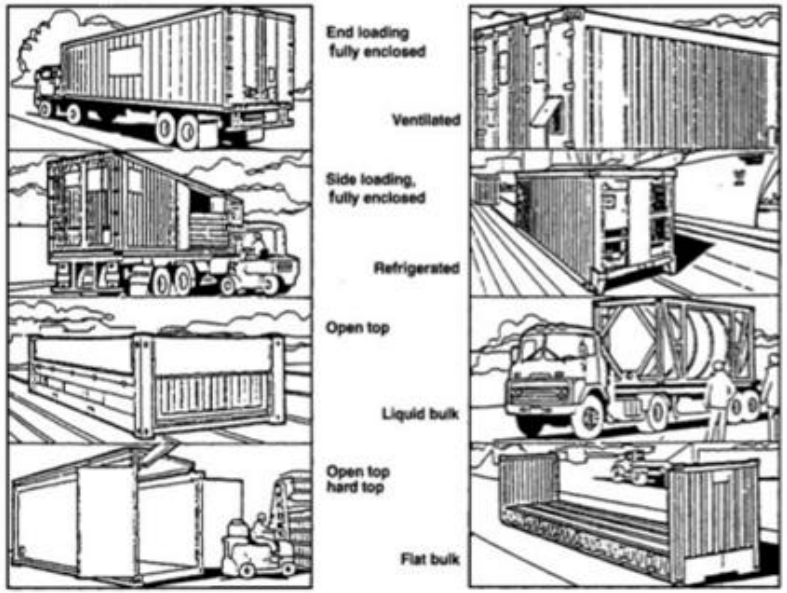
Contents

Competitiveness of the railway sector

THE SOLUTION

- **The Fourth Railway Package**: fair intramodal competition, homogeneous infrastructure management, technical harmonisation and reduced administrative burden
- **Rail Freight Corridor Regulation**: seamless cross border travel, coordinated development and maintenance works, capacity planning and traffic management
- **The new TEN-T Guidelines and the Connecting Europe Facility**: interoperable and homogeneous infrastructure, removal of capacity bottlenecks
- **Standardisation**: CEN, ERA, UN ECE, OTIF, UIC, voluntary industry best practice recommendations
- **Implementing Acts and reporting**: Commission guidance and enforcement of implementation concerning the European rules; as well as statistics collection and reporting

Codification for operations on rail



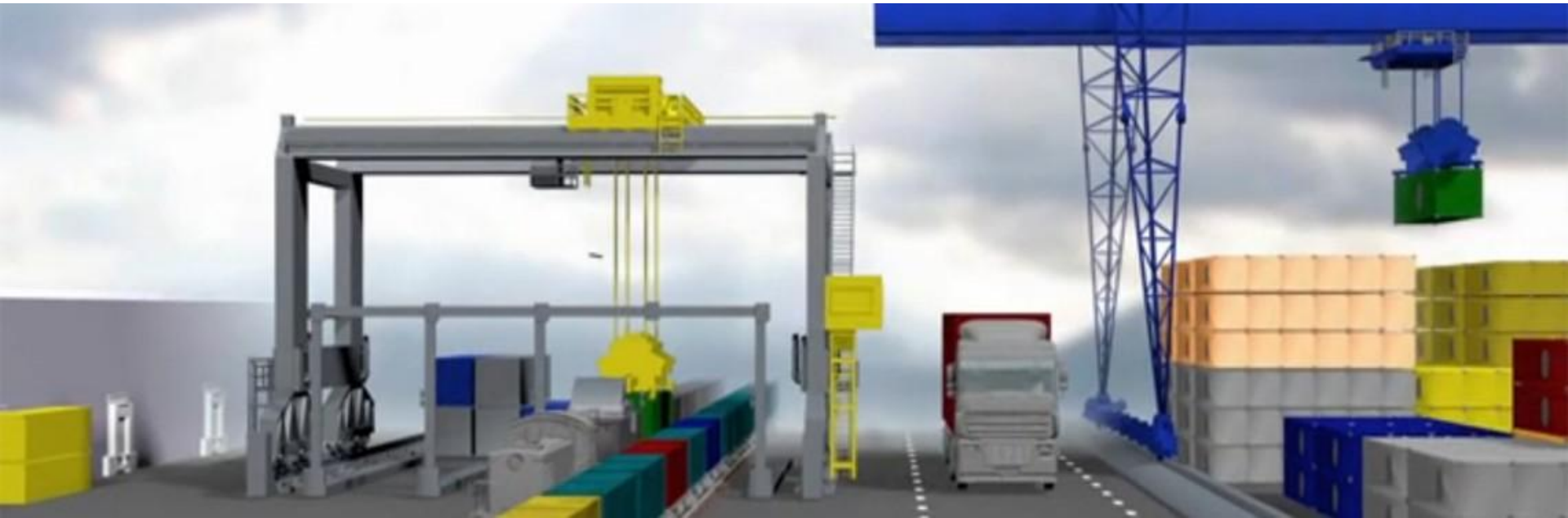
To determine if a

loading unit + wagon combination

can travel on a particular railway line

Terminal operations

- **Gaining access: allocation of terminal slots**
  - especially on *Open Access Terminals*
- **Contents of a terminal slot:** basic services / extra services
- **Conditions of entry onto the premises**
- **Complaint mechanism**



IT systems and paperless solutions

Standardisation needs

- **Registers**
  - rail infrastructure
  - wagons
- **ILU identification**
  - ILU- and BIC-Code
  - Register of loading units
- **Data entry**
  - OCR
  - RFID
- **Interfaces**
  - RNE TiS data
  - TAF TSI data

CT route planners

Terminal Systems

Tracking & Tracing

Customs administration

Commercial conditions

- **Legal framework**
  - Intergovernmental agreements (through OTIF and CIT): COTIF, CIM, CIV
  - UNECE Glossary of Terms
  - EU law: Railway legislation, Rail Freight Corridors, recently revised Directive 96/53, soon-to-be recast Directive 92/106
  - ERA TSIs, UIC leaflets, ISO and EN standards, industry best practice guidelines
- **UIRR General Terms and Conditions**

European Rail Freight Corridors

Rail Freight Corridors (RFCs) map 2015

Including extensions foreseen in 2016 as indicated by the RFCs

- RFC1 Rhine-Alpine
- RFC2 North Sea-Mediterranean
- RFC3 ScanMed
- RFC4 Atlantic
- RFC5 Baltic-Adriatic
- RFC6 Mediterranean
- RFC7 Orient
- RFC8 North Sea-Baltic
- RFC9 Czech-Slovak

Multi-corridor station
Single-corridor station
Future extensions*
Under construction

*This map does not include all potential RFC routes' extensions contained within Annex 2 of EU Reg. 1316/2013 (extensions are subject to market studies). For further details, please refer to the individual RFCs' websites.

Contents

Meeting the Market's Expectations: Competitive CT

SMALL CARBON FOOTPRINT

WEATHER RESILIENCE

LABOUR EFFICIENCY

EASY-TO-USE

RELIABILITY

SPEED

ENERGY EFFICIENCY

OUSTANDING SAFETY

SUPERIOR SECURITY

Regulatory framework for Combined Transport 1/2

The recast of Directive 92/106 to create a genuine single market in the EU

- **Framework legislation**

  - definitions and Pan-European rules for technical aspects such as codification, certification, registration, etc.

- **Temporary benefits**

  - to counterbalance the regulatory disadvantage for as long as it continues to prevail (proportionately to the status quo in each Member State)

- **Optimised infrastructure**

  - complementing the large CEF Transport projects with small scale development aid on a Member State level to eliminate infrastructure limitations faced by consignors if wishing to shift to intermodal/combined transport

continued…

Regulatory framework for Combined Transport 2/2

The recast of Directive 92/106 to create a genuine single market in the EU

- **Development plans**

  - encouraging the complex horizontal thinking required by intermodal/combined transport based logistics on a Member State level

- **Intermodality test**

  - systematic test of any policy or regulatory proposal as part of the impact assessment to check whether an intermodal/combined transport solution could not deliver the desired outcome more efficiently

- **Monitoring and reporting**

  - accurate measurement of intermodal/combined transport performance and regular feed-back to the decision-makers

Summary: The Regulators' Challenge

- **Relative competitive framework**

  - **user to pay all costs**: involved with accessing the public transport infrastructure; in case of roads it is **land rent, operation** (cleaning, rescue – emergency services, policing/traffic management), **maintenance** and **construction**

- **Internalisation**

  - **congestion**: value charging principle – congestion surcharge within road toll (scarcity surcharge)
  - **local pollution**: noise, PM10, vibration, landscape destruction – within road toll
  - **accidents**: loss to society due to loss of life or permanent injury – insurance surcharge
  - **GHG emission and oil dependency**: climate change and "wars for oil" – fuel excise duty

- **Within the railway sector**

  - **end privileged relationships**: traction service and other railway transportation providers should be allowed to fairly compete – irrespective of ownership / grouping with infrastructure manager
  - **rail infrastructure investments to be subject to strict cost-benefit-analysis**: be based on business rationality – not only subject to political preference (vote maximisation)

- **For the intermodal sector**

  - **harmonised regulatory framework throughout the EU**: eliminate heterogeneity present in prevailing Member State level regulatory framework to help create a genuine single market

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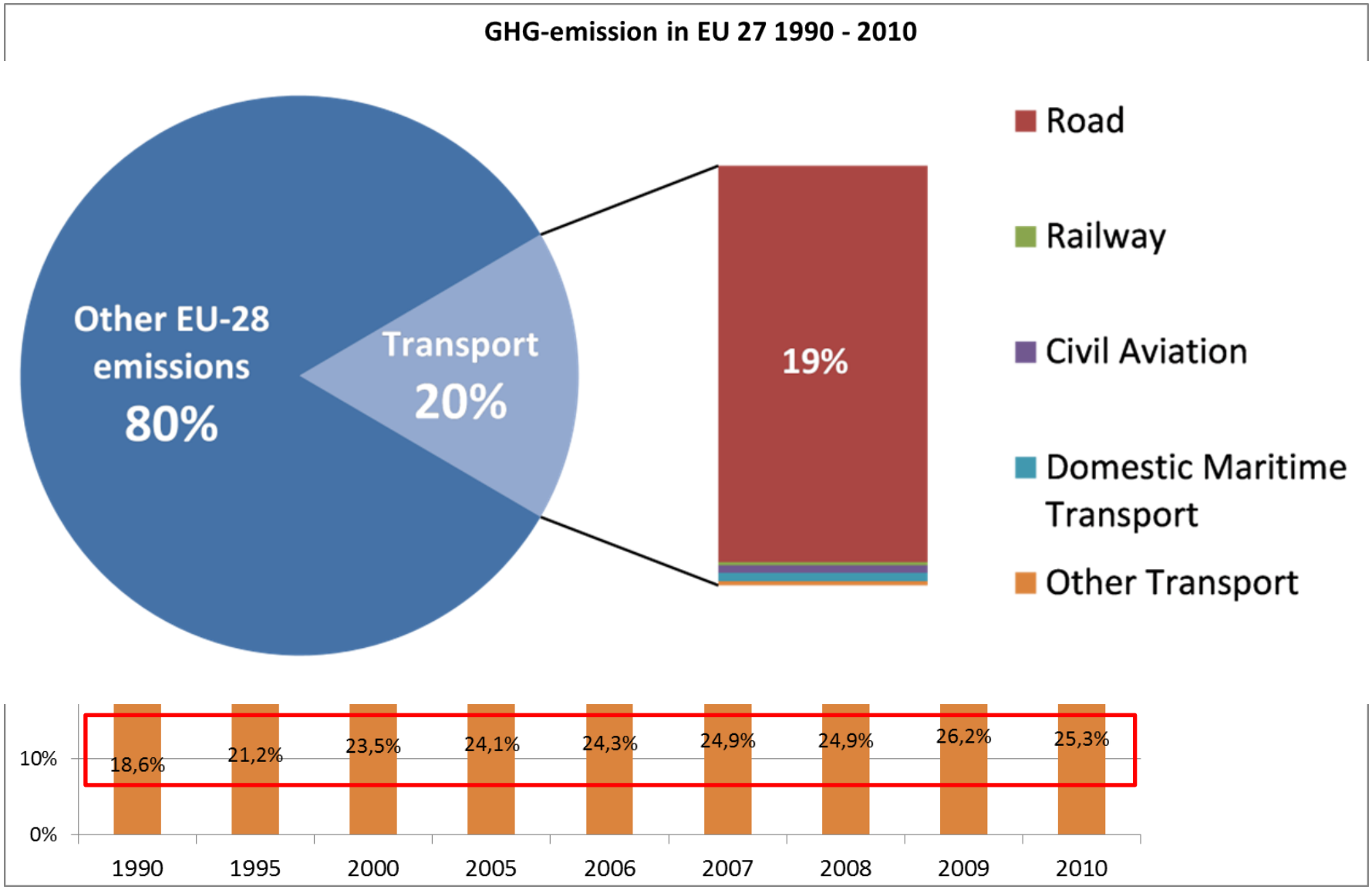
GHG-emission s of European Sectors: 1990-2010

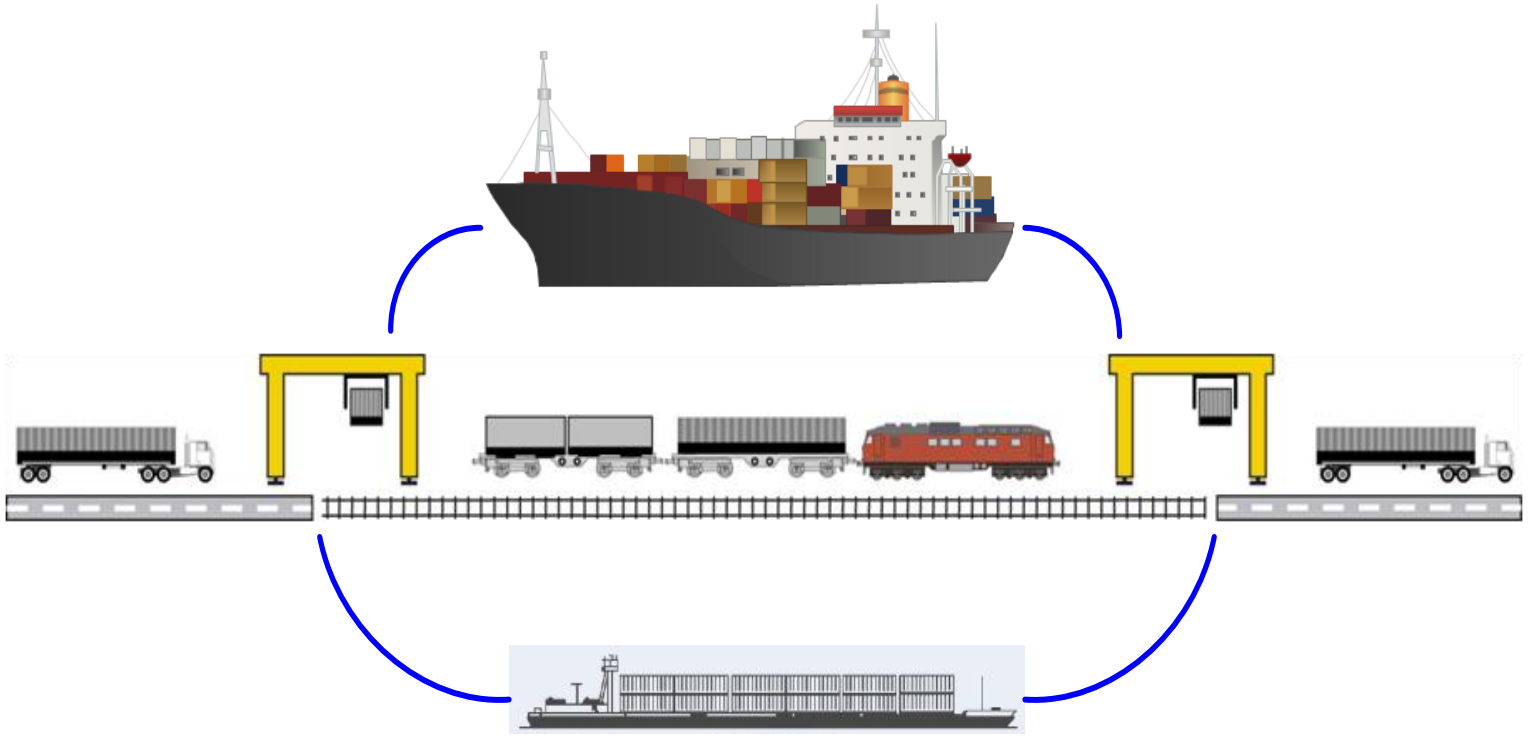


Mission letter of the new Transport Commissioner

"…the reduction of greenhouse gas emissions by the transport sector contributes to the achievement of the overall EU target in this area. This should be part of our overall effort to reinforce the sustainability of our growth model."

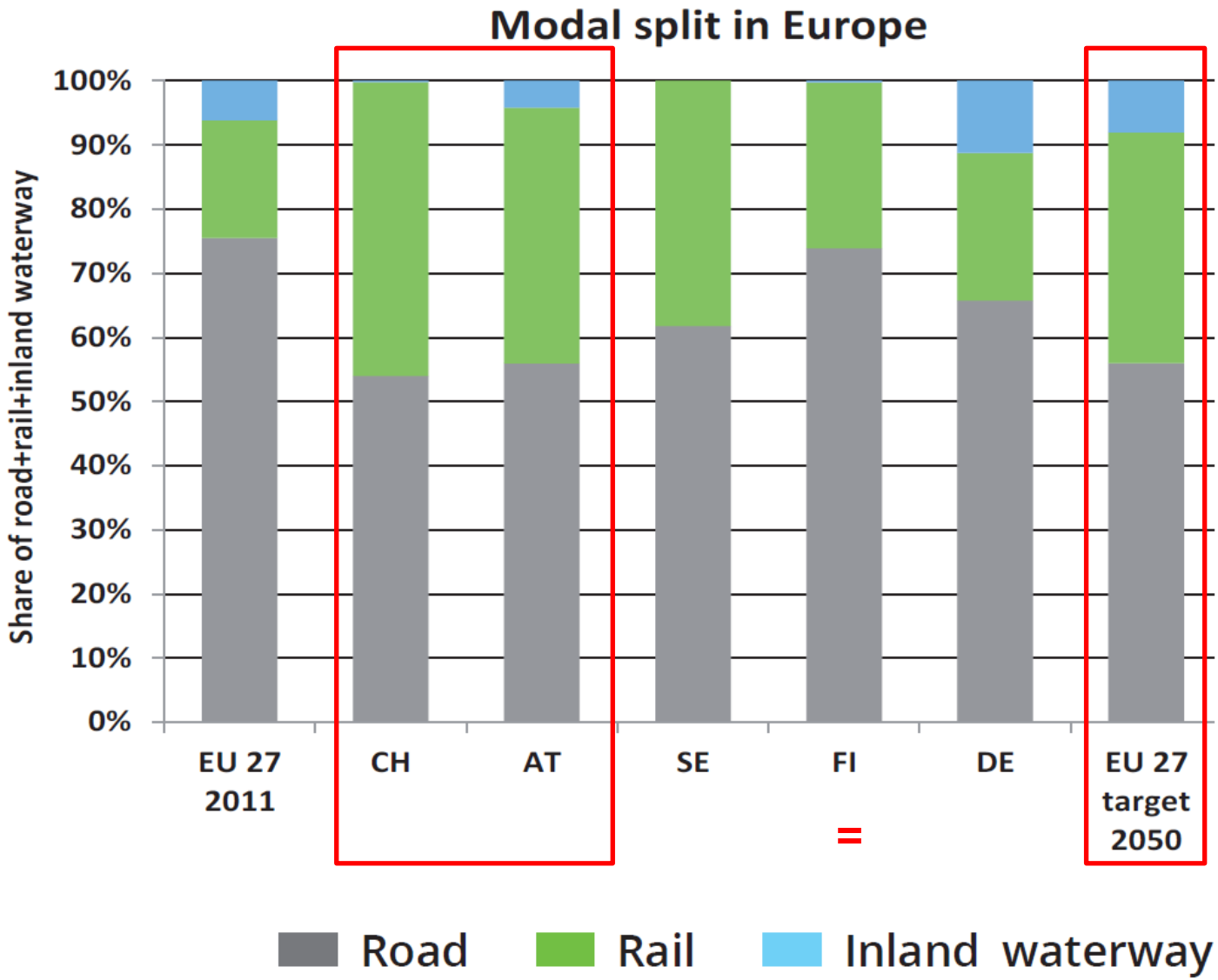
EU 2011 Transport White Paper

Shift 30% *of long(er) distance road tonne-kilometres realised over distances of 300km or more* ***by 2030 from trucks to sustainable modes of transport*** *- (electric) rail, inland navigation and shortsea shipping - which ratio should increase to* ***50% by 2050****



** on the basis of 2010*

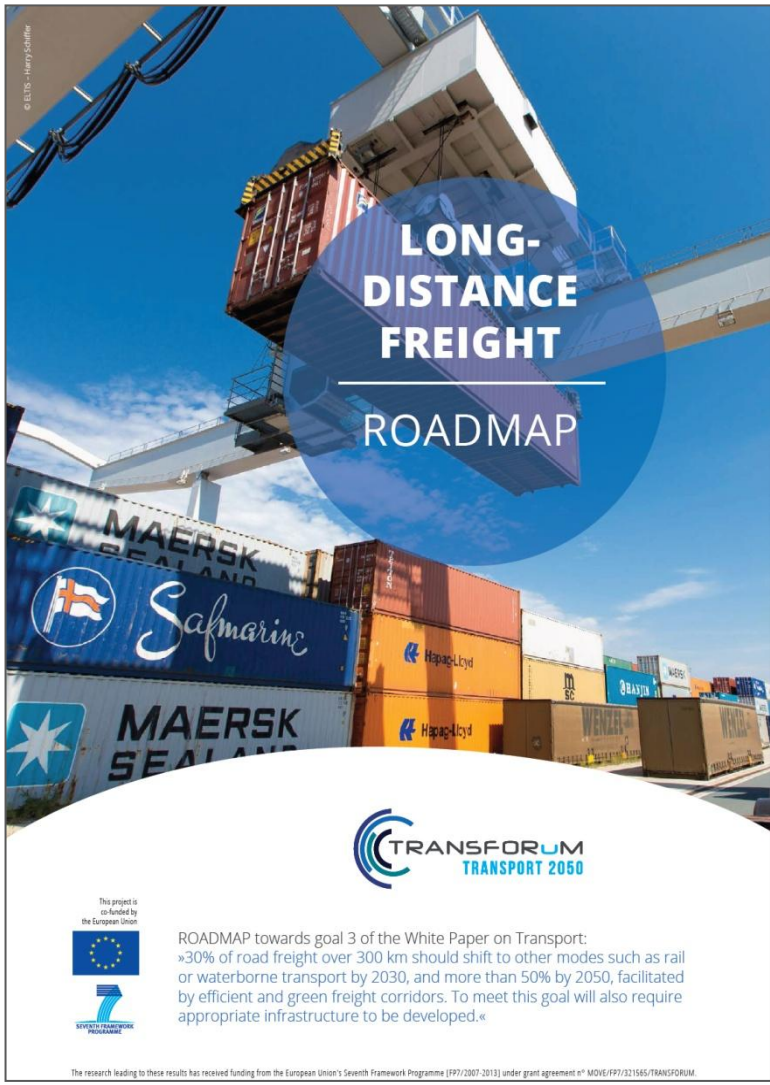
Modal split without SSS (coastal shipping)



Source: TRANSFORuM Project Report on Long Distance Freight, June 2015

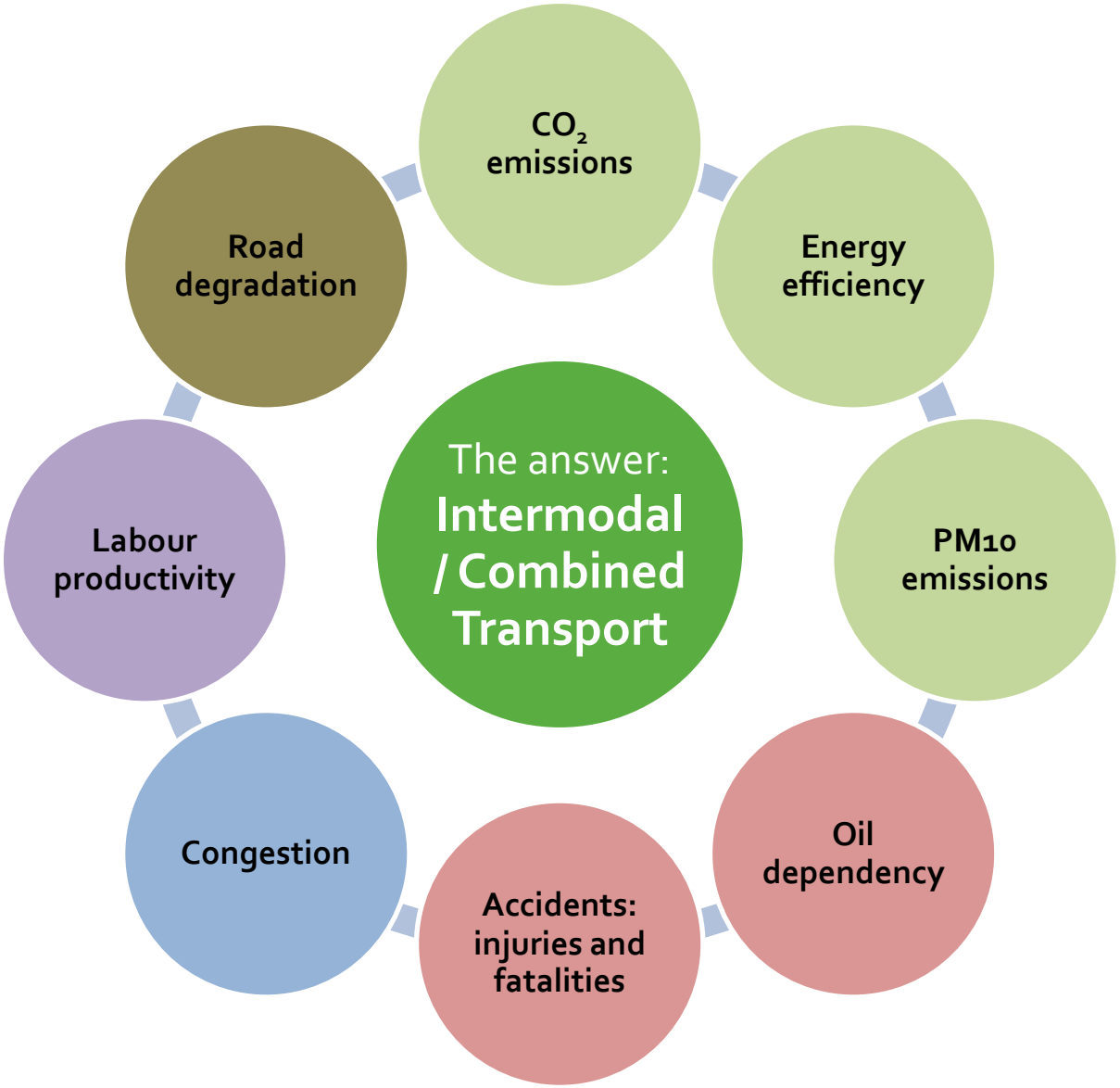
"Achievable, even if challenging"

A study in the UK (McKinnon and Piecyk, 2010) based on a Delphi survey of 100 logistics specialists suggested that mode shift could potentially decrease roads share of the freight market by 14% (from 64% tkm to 50%) by 2050. A study by den Boer et al. (2011) deals with the shift from road to rail of freight transport in the EU to 2020. One conclusion is that there is a potential to increase the market share for rail from 18 to 31–36% and reduce GHG emissions by 19% where road and rail compete. This is roughly consistent with the modal shift target as exemplified above. Although such studies are always associated with considerable uncertainties, they seem to indicate that the goal is achievable, even if challenging.



Source: TRANSFORuM Project Report on Long Distance Freight, June 2015

The preference should be clear



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Intercontinental Combined Transport

- UIRR Members active between Europe and China

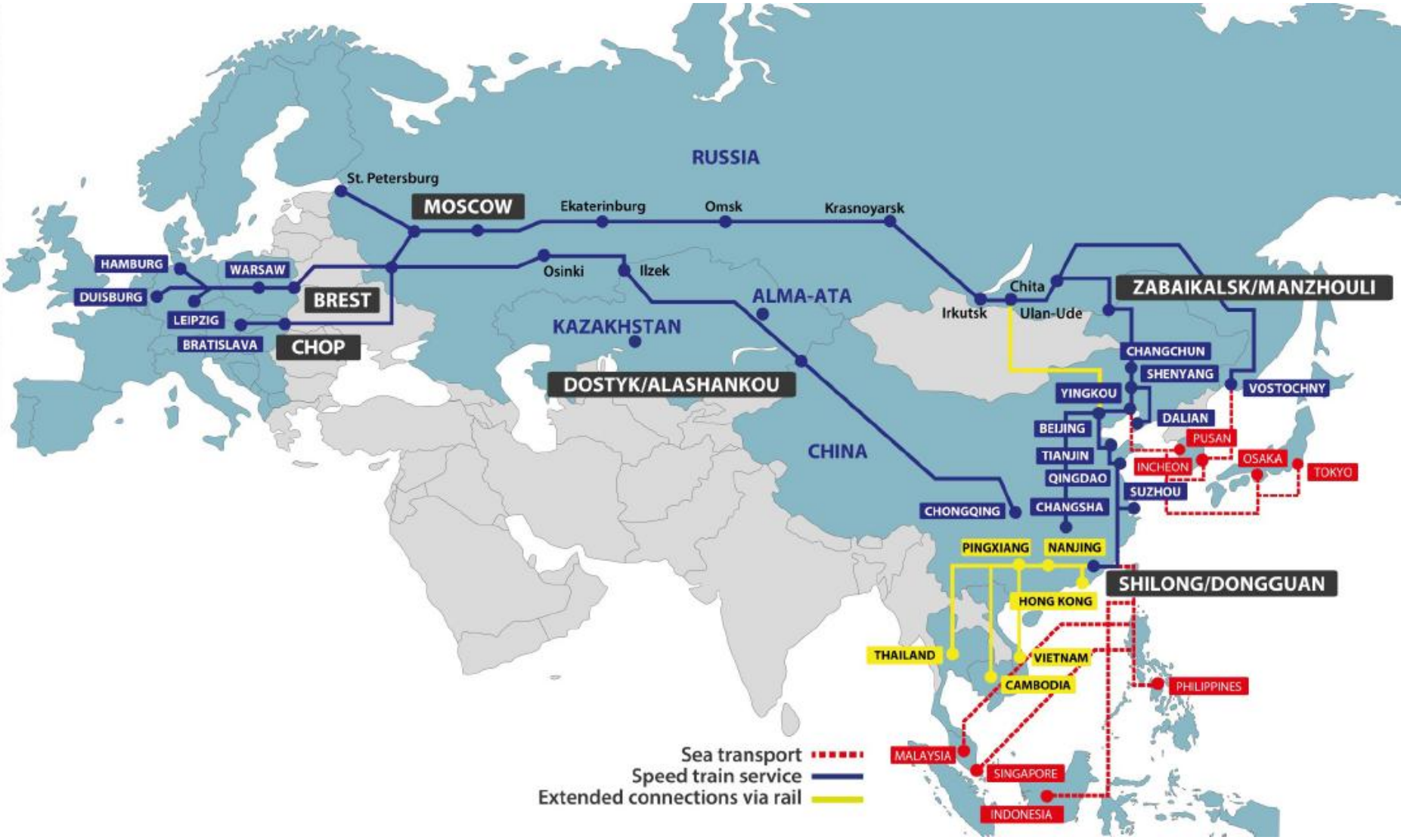
FELB MEMBER OF UTLC

HUPAC

TEE TRANS EURASIA LOGISTICS

- 2015 traffic volume (export+import): **over 100.000 TEU**

Well identified routes – high level quality



FELB POST

FAR EAST LAND BRIDGE LTD. ILLUSTRATED NEWSPAPER

Monday, February 15, 2016

120 KM/H ON THE RUSSIAN STRETCH
WILL THIS ALSO IMPROVE TRANSIT TIME OF FELB'S SERVICE?

Reduction from 14 to **10 days terminal-to-terminal service** between Asia and Europe is identified as a new ambitious goal within the Russian Railway Group.

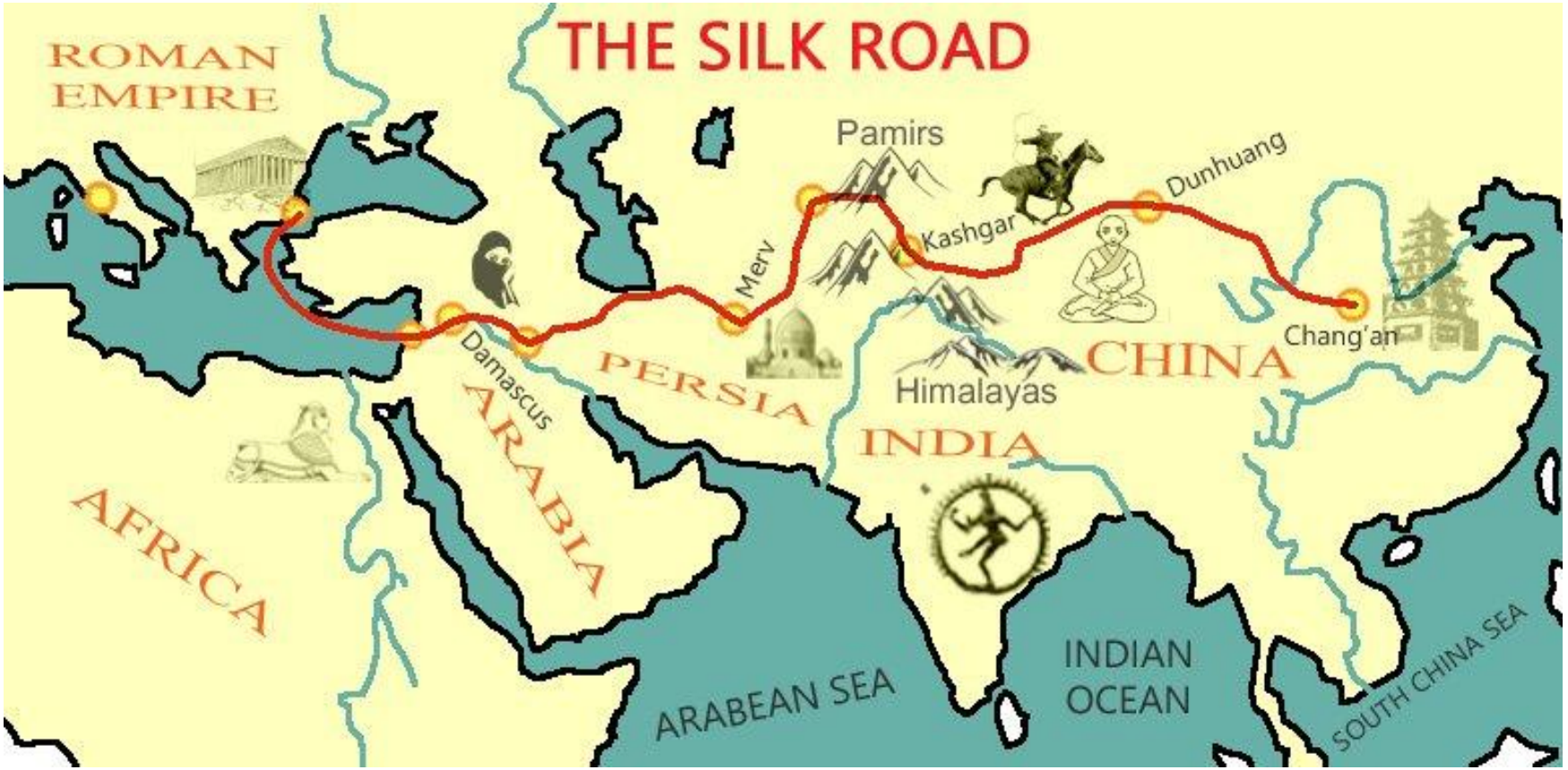
For the first time, wagons in Russia will be able to carry out transports at the speed of 120 km/h, loaded or empty. As the wagon manufacturer Altaivagon has been granted approval for the Type 13-2114-11 container flat wagon design with 18-2145 bogies, TransContainer prepares to use this new type of container wagons on the Moscow – St. Petersburg route.

The approval and the upcoming production are the result of collaboration with Russian Railways (RZD). The modelling and projecting went smoothly – only minor changes in the braking system were required to reach the new speed, Altaivagon reports. Ultimately, this is one more important step towards the reduction of transit time and maintenance costs.

The transit time development of FELB's railing service between Asia and Europe improved gradually from 26 days to 22 days in 2010; from 22 days to 20 days in 2012 and from 16 days to 14 days in 2014. With the arrival of the 120 km/h wagon in Russia, FELB will be able to reach a transit time of only 10 days in the nearest future.

FELB

The future?


THE SILK ROAD
ROMAN EMPIRE
Pamirs
Dunhuang
Kashgar
Merv
Damascus
PERSIA
CHINA
Chang'an
Himalayas
INDIA
ARABIA
AFRICA
ARABEAN SEA
INDIAN OCEAN
SOUTH CHINA SEA

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THANK YOU

For your attention