



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE (UNECE)

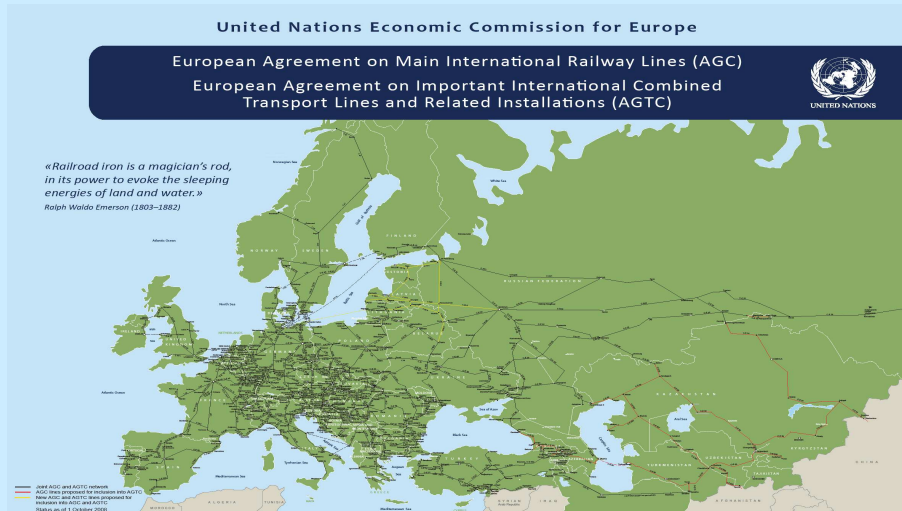


Global Rail Freight Conference St. Petersburg

Green Logistics An opportunity for rail

Rail transport from the Atlantic to the Pacific

Martin M. Magold





Outline of presentation

- **What is sustainable transport ?**
- **Are there green opportunity for railways ?**
- **How can Governments support green rail ?**
- **Challenges for Euro-Asian rail freight !**
- **What can the United Nations do ?**



Sustainable transport

- What is it? -

A definition

Carry out and adapt all activities and behaviors in such a way so as not to damage the prospects of future generations



Sustainable transport

Criteria

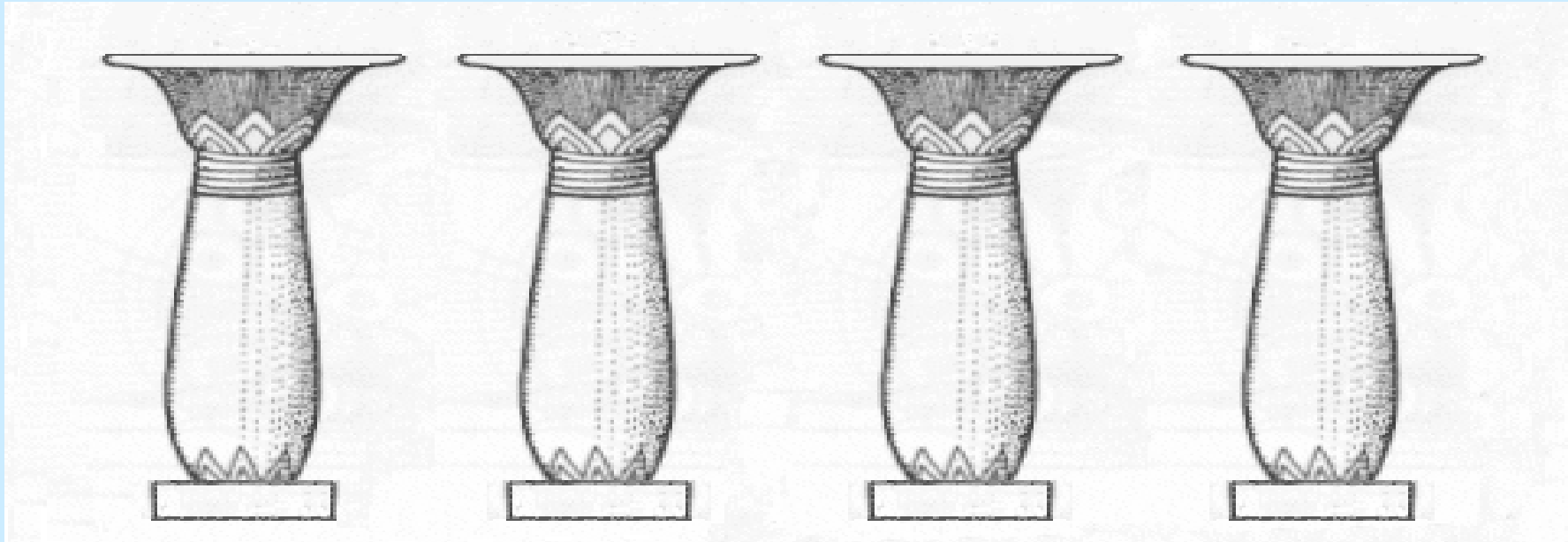
Access

Affordability

Safety

Emissions

Protection of habitats



economic

social

health + environment



Sustainable and green transport

Green is only one aspect

Sustainable transport must ensure

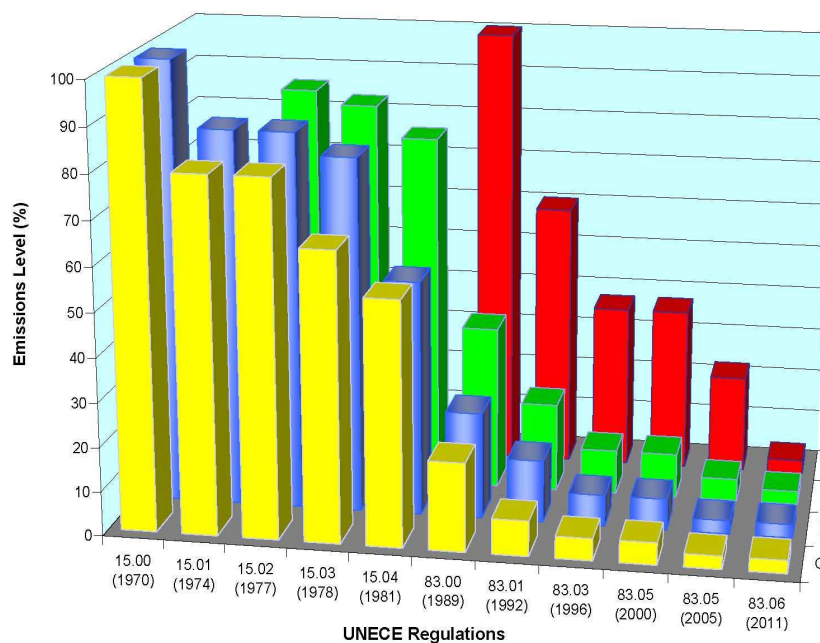
- **Access**
- Opening up of remote and land-locked countries
- Mitigation of congestion
- **Affordability**
- Affordable mobility for all segments of society and economy
- **Safety**
- Significant reduction of traffic deaths and injuries (vision zero)
- **Emission control**
- Non-detrimental emission of noise and atmospheric pollutants for our health, flora and fauna
- Conservation of biodiversity and protection of habitats
- Reduced GHG emissions to sustainable levels



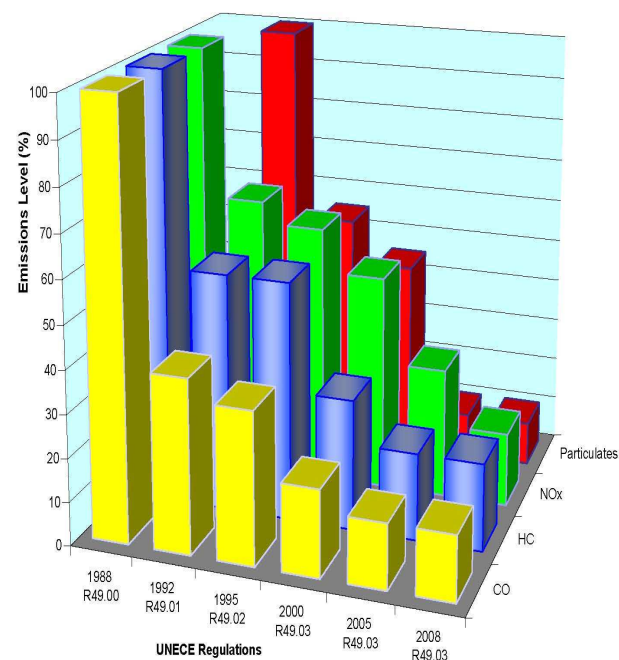
Sustainable and green transport

Reduction in atmospheric pollutants

EVOLUTION OF EMISSION LIMITS OF PASSENGER CARS



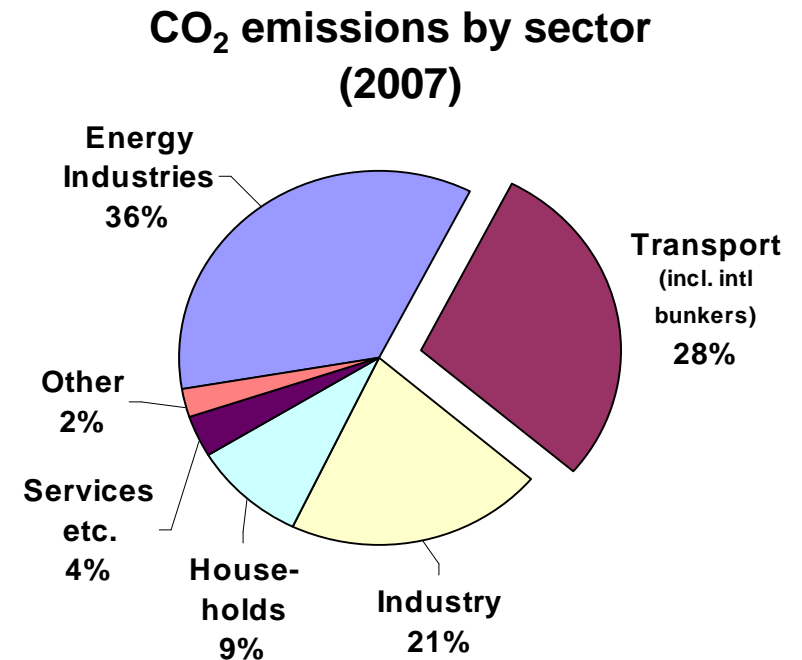
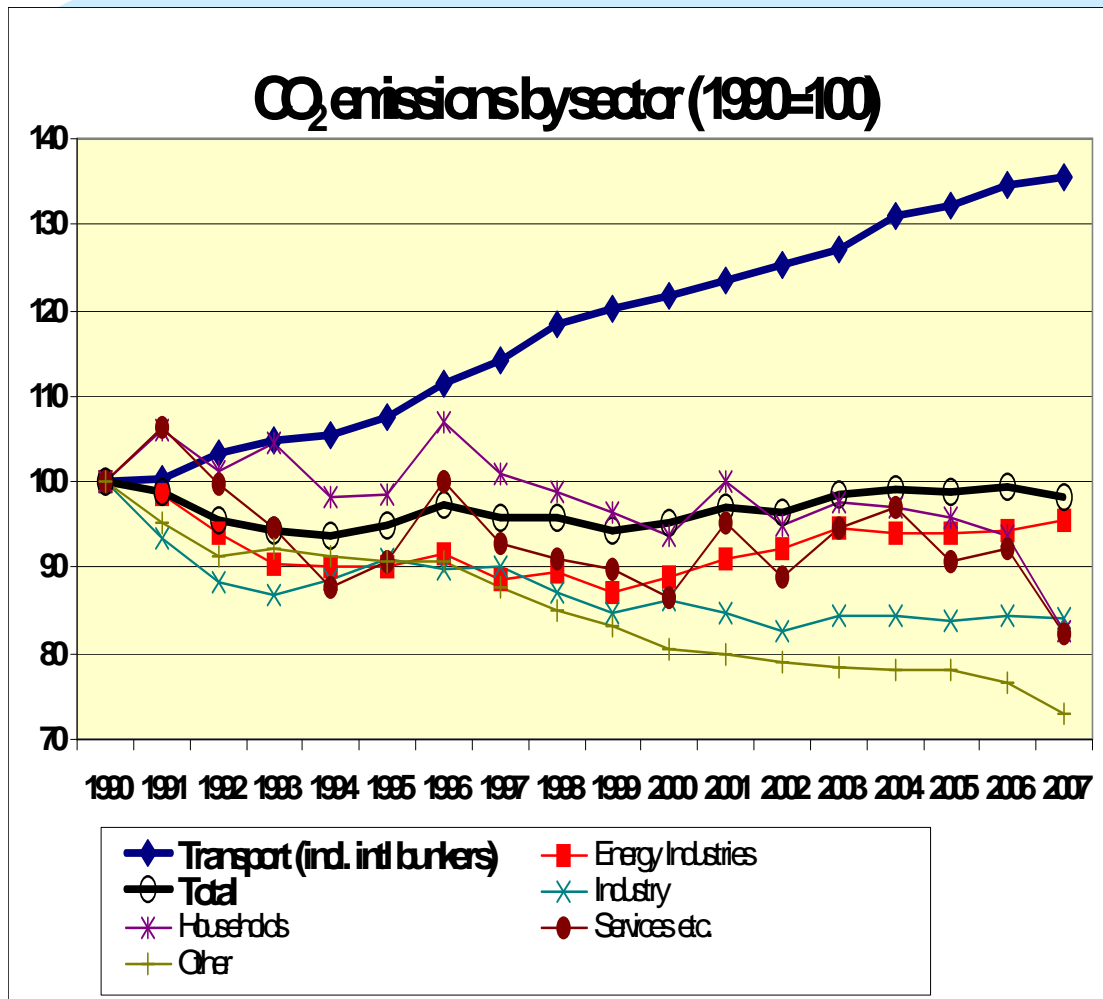
EMISSION LIMITS FOR HEAVY TRANSPORT VEHICLES





Sustainable and green transport

CO₂ emissions by sector (EU 27)

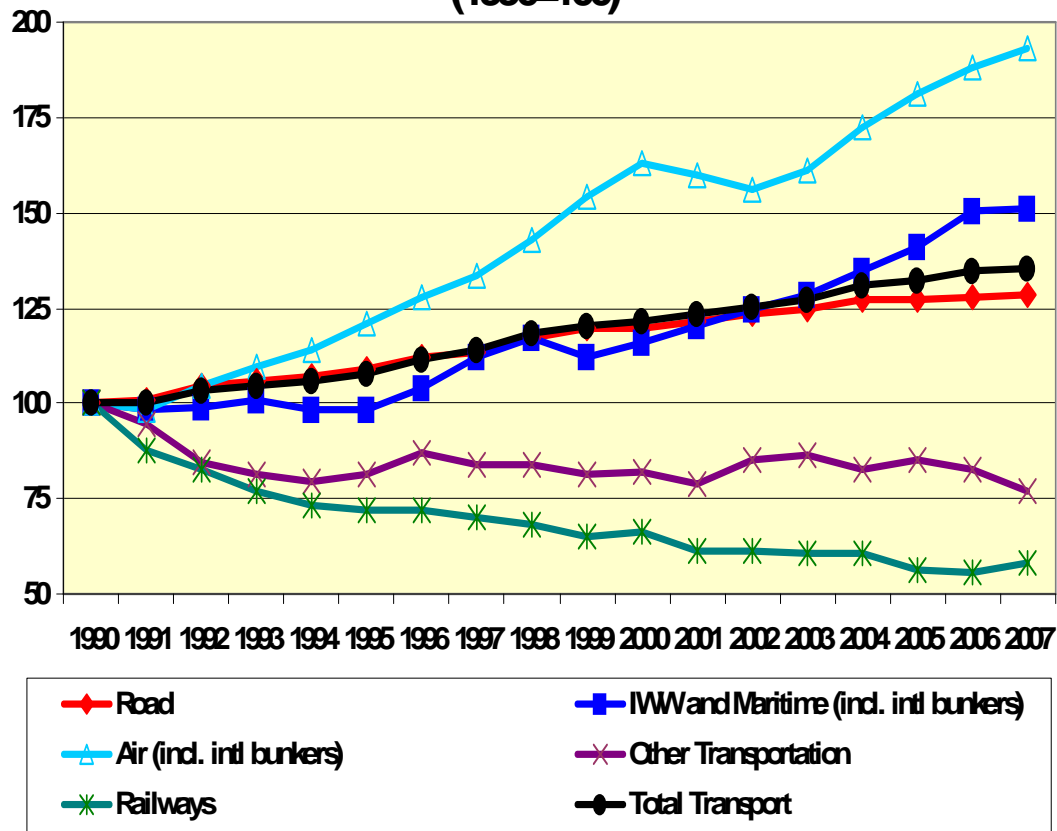




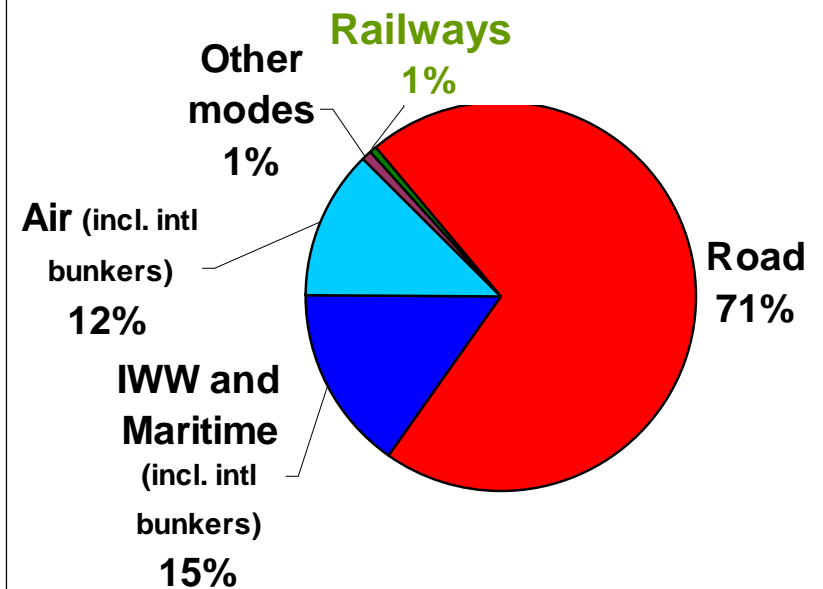
Sustainable and green transport

CO₂ emissions from transport (EU 27)

CO₂ emissions from transport in the EU27 by mode
(1990=100)



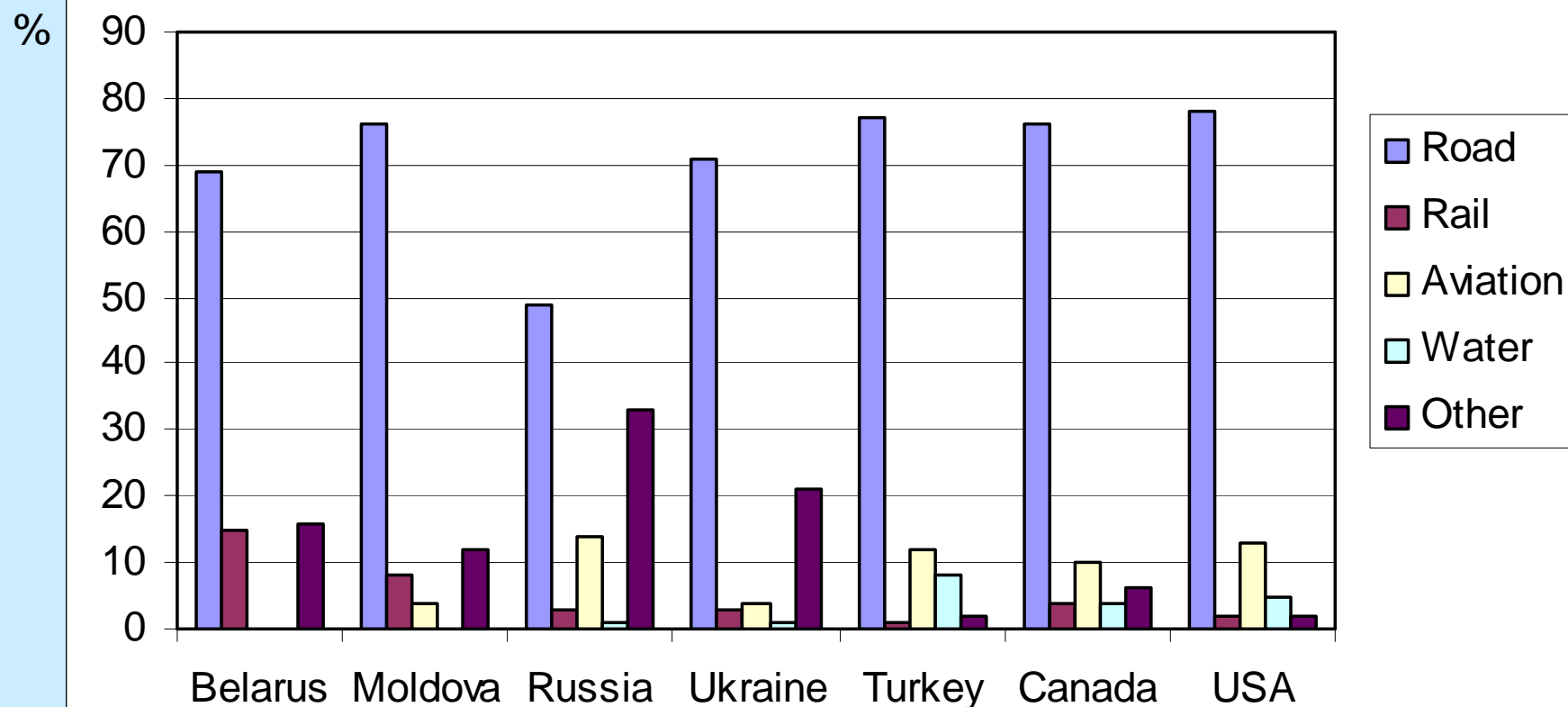
CO₂ emissions from transport
(2007)





Sustainable and green transport

CO₂ emissions from transport (non EU countries)



Source: ITF



Are there **green** opportunity for rail?

Yes ... , but do not forget the basics

Green (helps to) sells

- Develop business models
- Increase **green** visibility

But criteria for modal choice remain

1. Price
2. Quality (reliability)
3. Transport time
4. Service
5. Flexibility
6. Transparency
7. **Green**

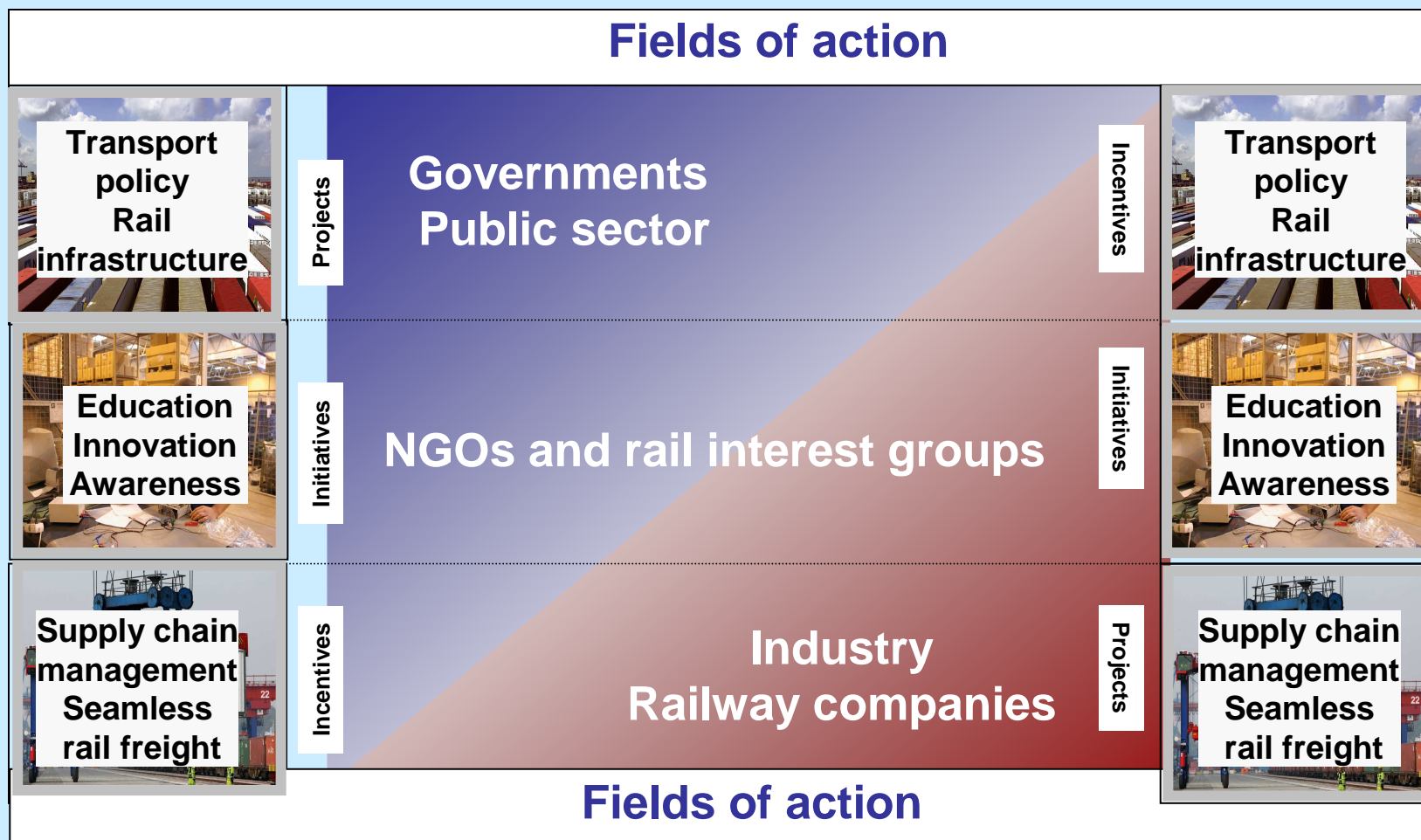
?





Role of Governments

How can they support green rail freight?



Source: Adapted from German Logistics Masterplan



Improving the carbon footprint

Who should do what?

Factors influencing CO ₂ emissions	Actors in the rail sector			
	Rail infrastructure managers	Railways	Industry and logistics providers	Governments
Transport demand	-	-	Better distribution/supply chain management	Decouple GDP and transport demand? Improve land-use policies?
Modal split	Open access, improve network performance	Increase productivity	Marketing of “green” transport	Establish a level playing field within and between modes
Fuel type	-	Increase and decarbonize electricity production	-	Set incentives for use of renewable sources of energy
Fuel efficiency	Enhance traffic flow and capacity	Increase vehicle and traffic efficiency	Better traction, rolling stock and IT technology	Support research in diesel, hydrogen, hybrid technologies



Role of Governments

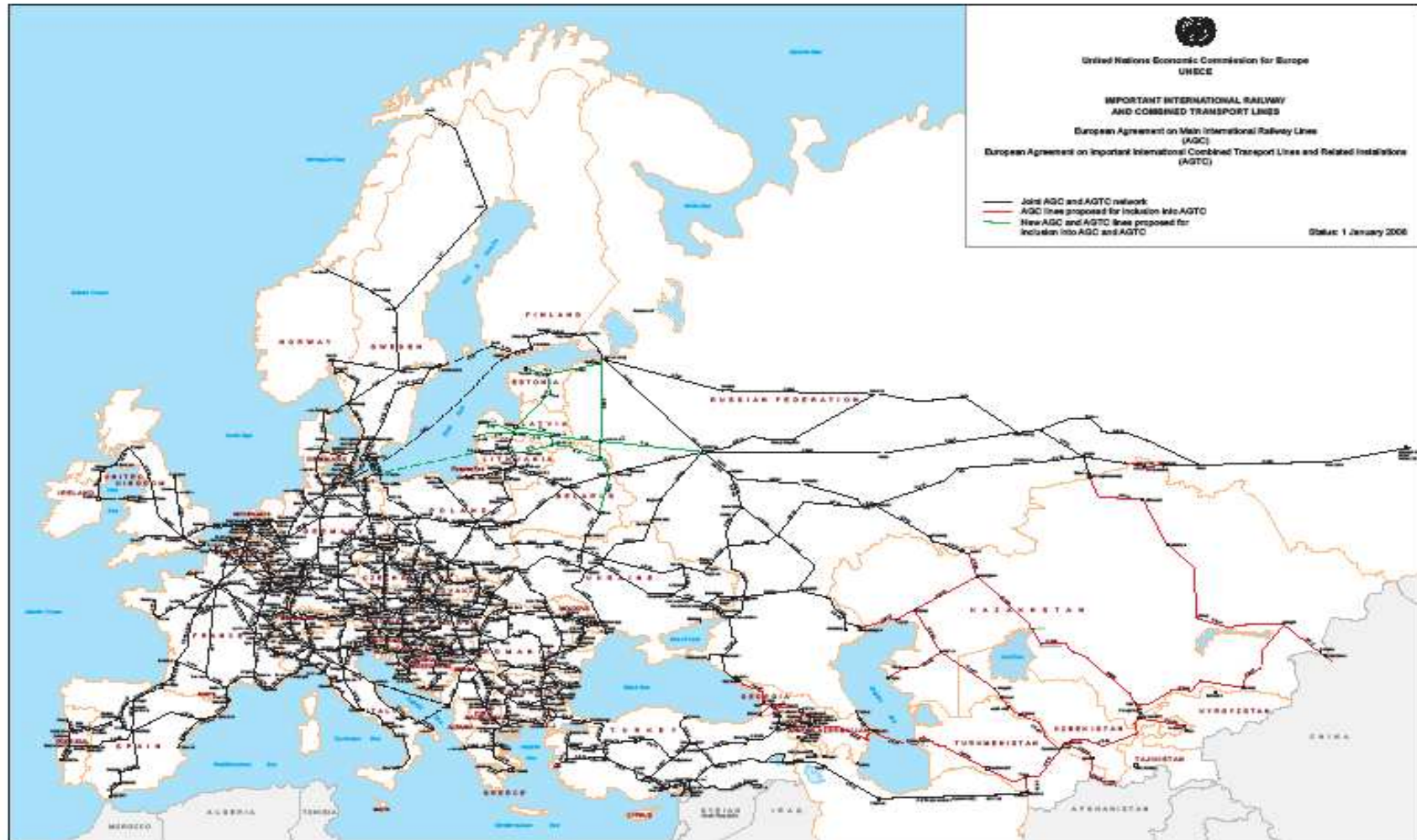
Establishing a level playing field

- **Competition**
 - among rail operators (if applicable)
 - between modes
- **Taxation** (internalization of externalities)
- **Infrastructure** (access, tariffs, performance)
- **Border crossings** (outside EU)
- **Interoperability** (technical, administrative, legal)
- **Coordination of policies** (national and international)



Euro-Asian rail freight

A challenge for business and Governments



UNECE Transport Division



Euro-Asian rail freight

Where is the market niche ?

Benchmark for business models

- Interregional rail transport
 - Maritime (container) transport
 - Air cargo
- Pan-European rail transport
 - Road transport

Business problems

- Unbalanced freight (container) flows
- Availability of adequate rolling stock
- Maintenance of infrastructure
- Tariffs (not really transparent and flexible)
- Gauge transshipment requirements
- Many borders, authorities and rail operators



Euro-Asian rail freight

Role of Governments

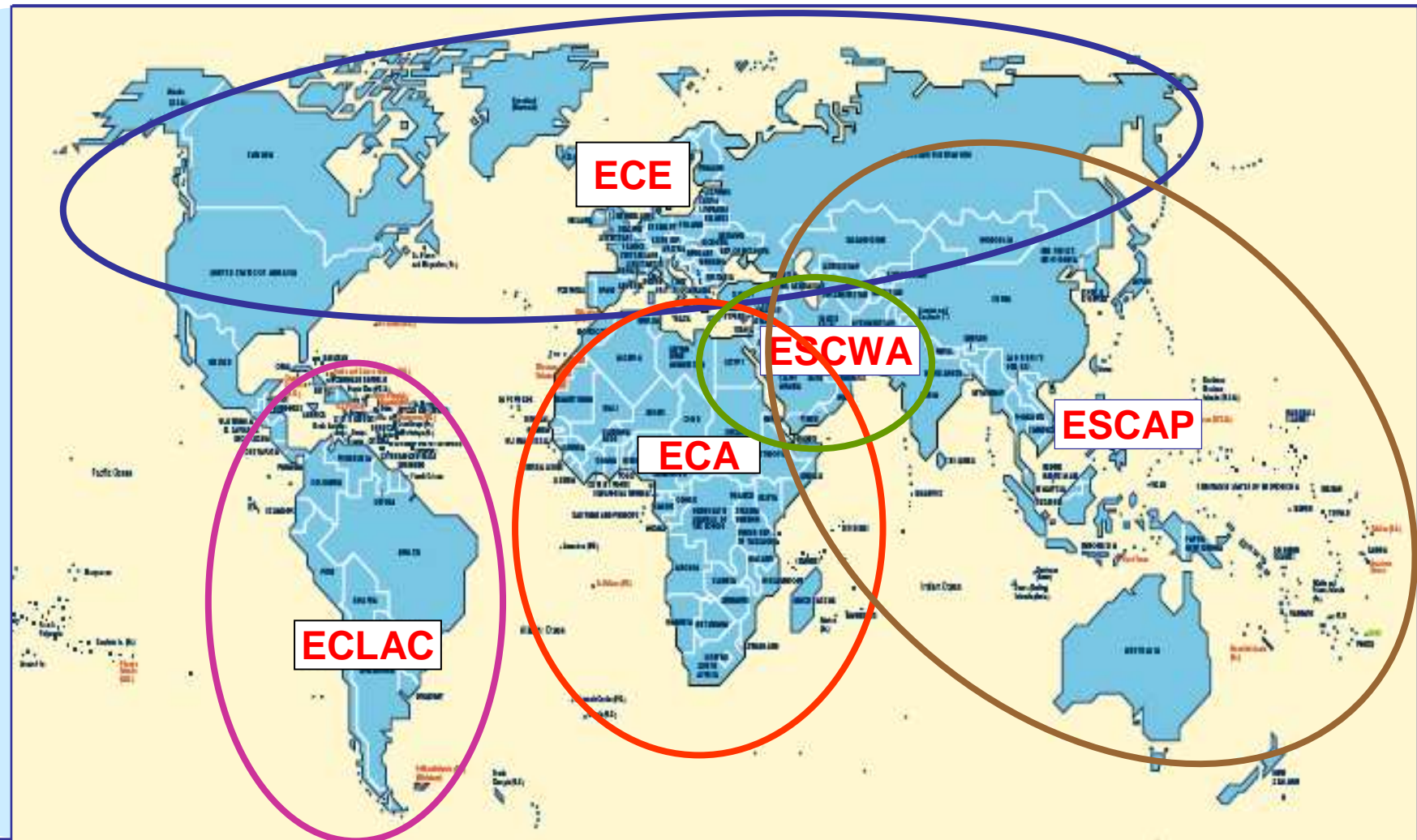
Establishing a level playing field

- **Global**
 - Maritime (inclusion of GHG emissions into global reduction system)
 - Air (inclusion of GHG emissions into global reduction system)
- **Inter-regional**
 - Border crossings (facilitate and harmonize rail border control procedures)
 - Infrastructure (harmonize rail network development and infrastructure standards)
 - Operation (establish benchmarks for seamless rail operations)
 - Rail freight (establish single railway law and liability system)



Euro-Asian rail freight

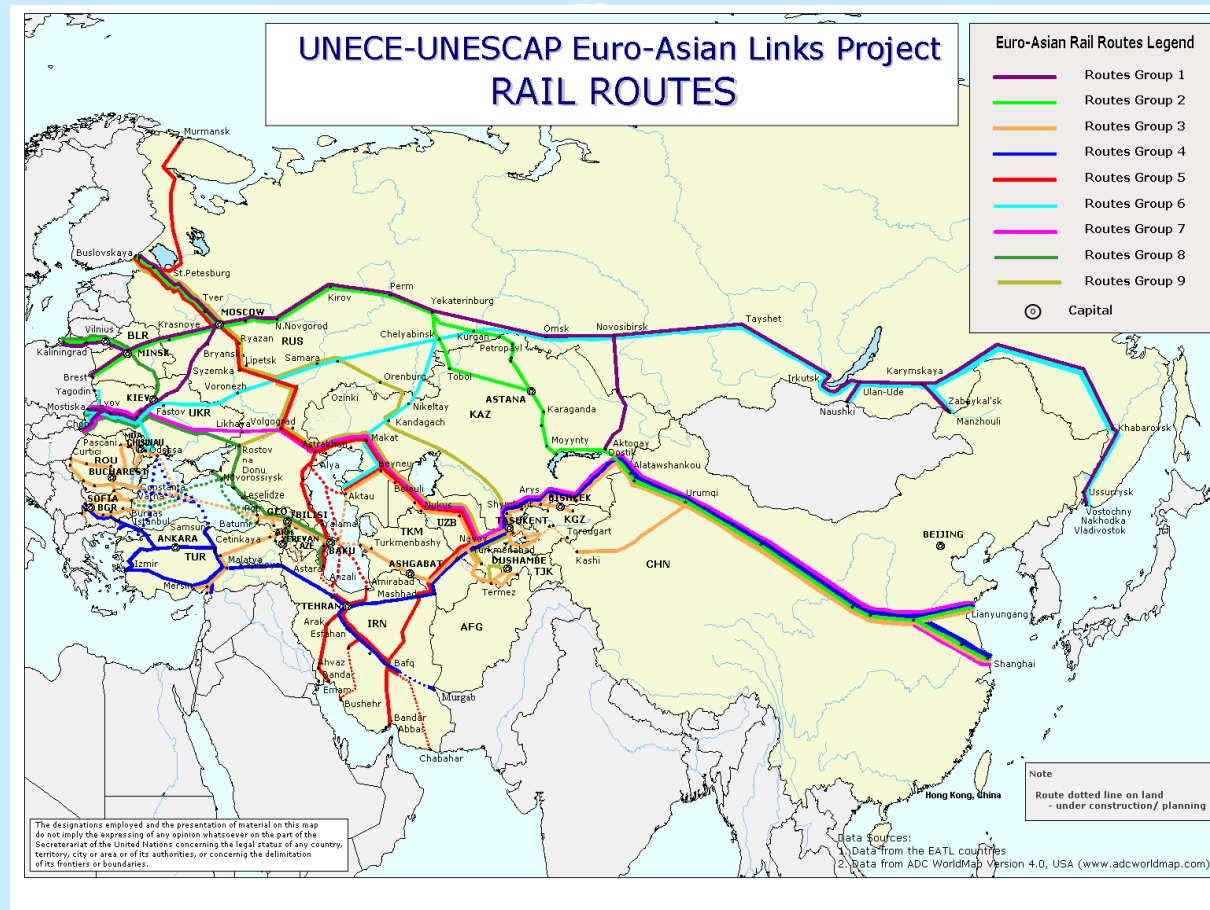
UN Regional Commissions cooperate





Euro-Asian rail freight

Harmonized rail infrastructure





Euro-Asian rail freight

Facilitation of border controls

International Convention on the Harmonization of Frontier Controls of Goods (1982)

New Annex 9 on international rail transport

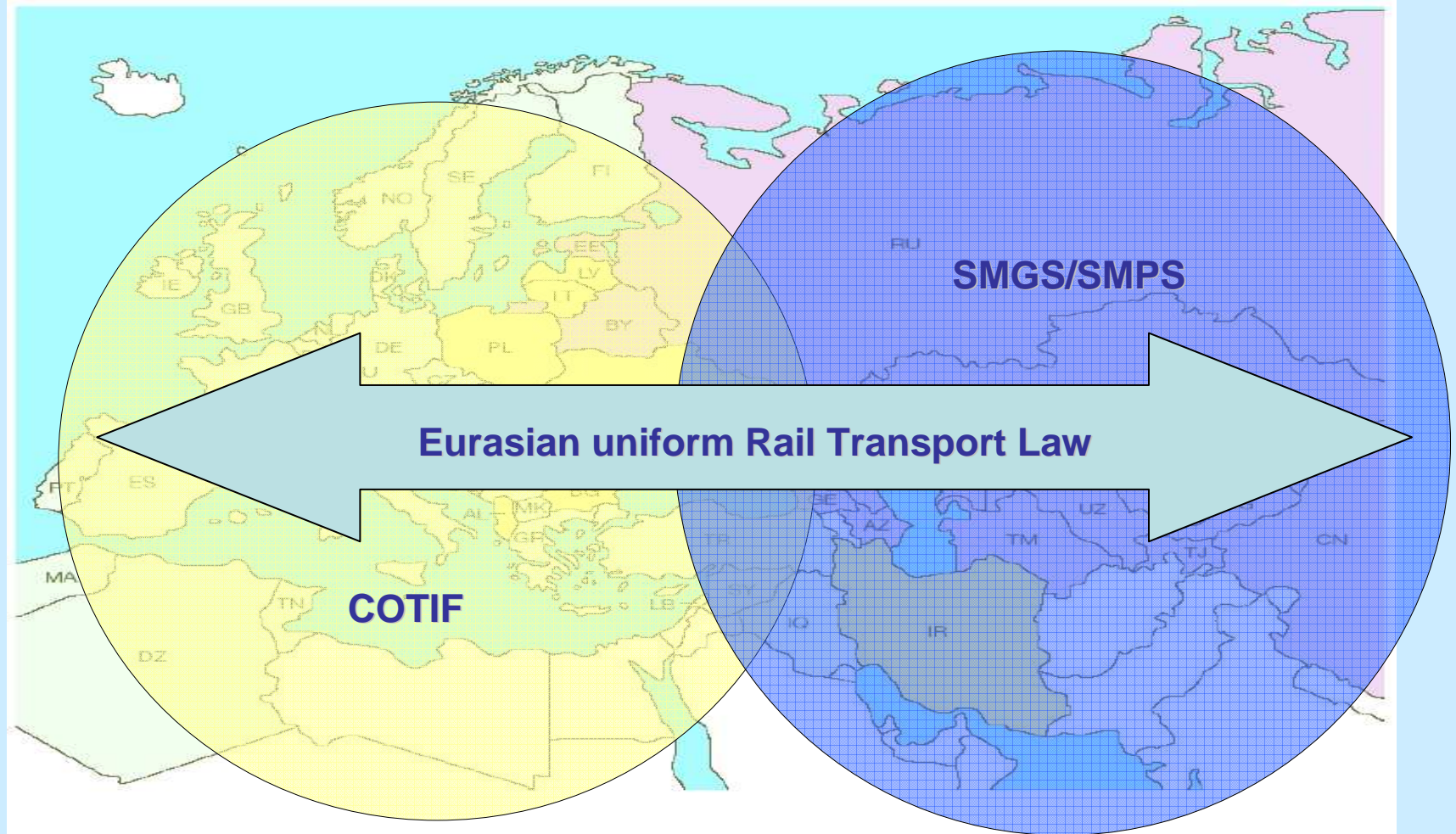
- **Visa procedures (train crews, border personnel, etc.)**
- **Border and control infrastructure and facilities**
- **Cooperation of inspection personnel**
- **Coordinated inspection mechanisms**
- **Acceptable time limits and delays**
- **Documentation (incl. CIM/SMGS consignment note)**

Adopted in February 2010 – coming into force in 2011



Euro-Asian rail freight

Uniform rail transport law





United Nations Economic Commission for Europe (UNECE)



Palais des Nations, Geneva (Switzerland)
www.unece.org/trans

UNECE Transport Division