

*Industry vision for Europe-Asia railway  
transport development*

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- **Overview**
- **Infrastructure & opportunities**
- **Business & opportunities**
- **Current barriers**
- **Industry solutions and challenges**

### *Modal split between Europe & Asia*

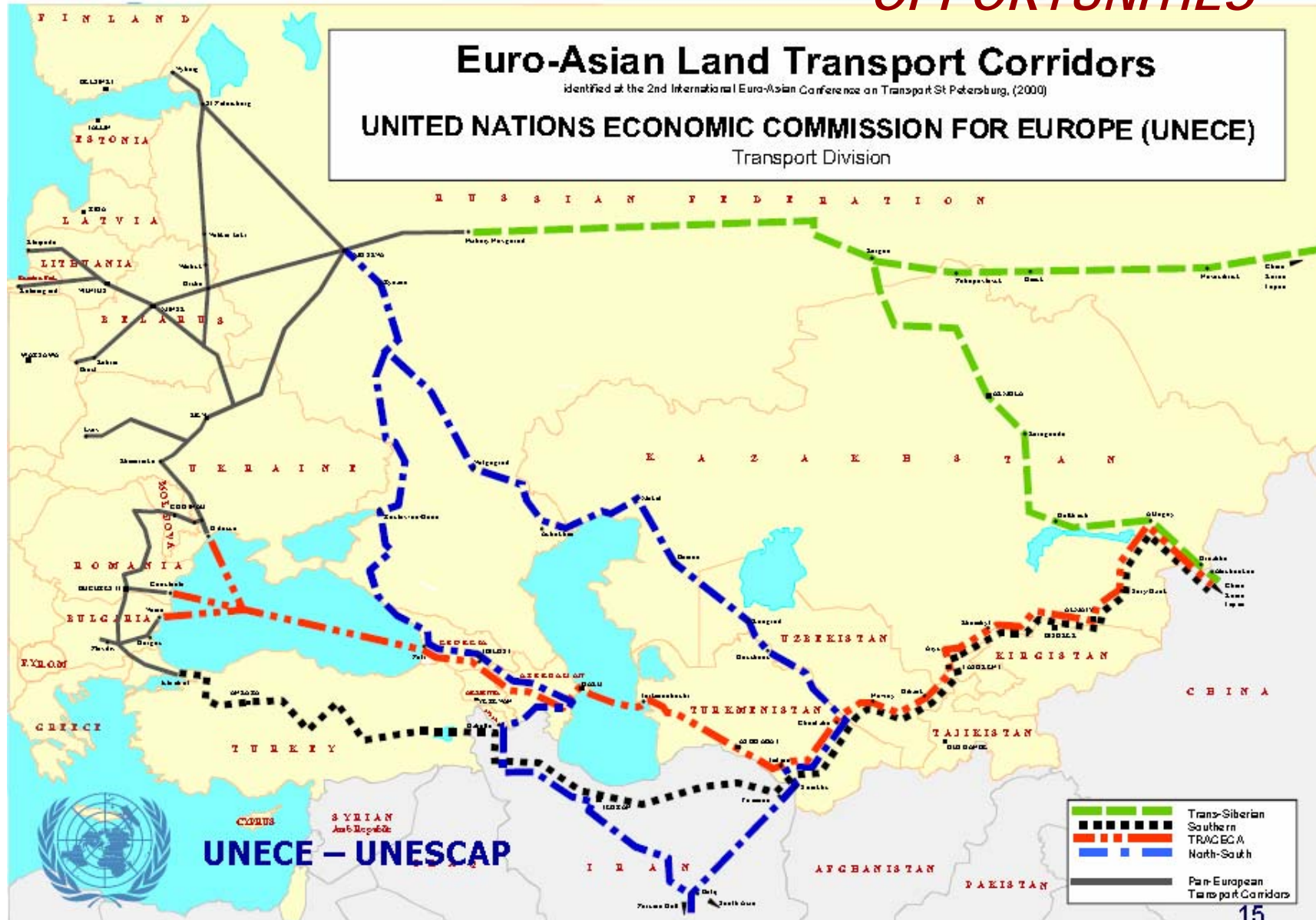
- **Maritime traffic dominates the traffic flow and has the fastest growth – around 6% per year**
  - **Road transport's cost is two or three times higher than container transport by sea**
  - **Rail transport has great potential – through the historical lines, Trans-Siberian, Silk-Road etc. – but still lacks behind maritime traffic**
  - **Air transport is fast but by far the most expensive mode**
- ***The revival of the great land routes over long distances opens up new opportunities particularly for rail transport***

- **POLITICAL VIEWS AND INFRASTRUCTURE OPPORTUNITIES**
  - **Europe's current policy is characterised by an outreach to new "neighbours"**
- **TECHNICAL SOLUTIONS AND BUSINESS OPPORTUNITIES**
  - **Interoperability of railway systems for an optimised trade exchange**



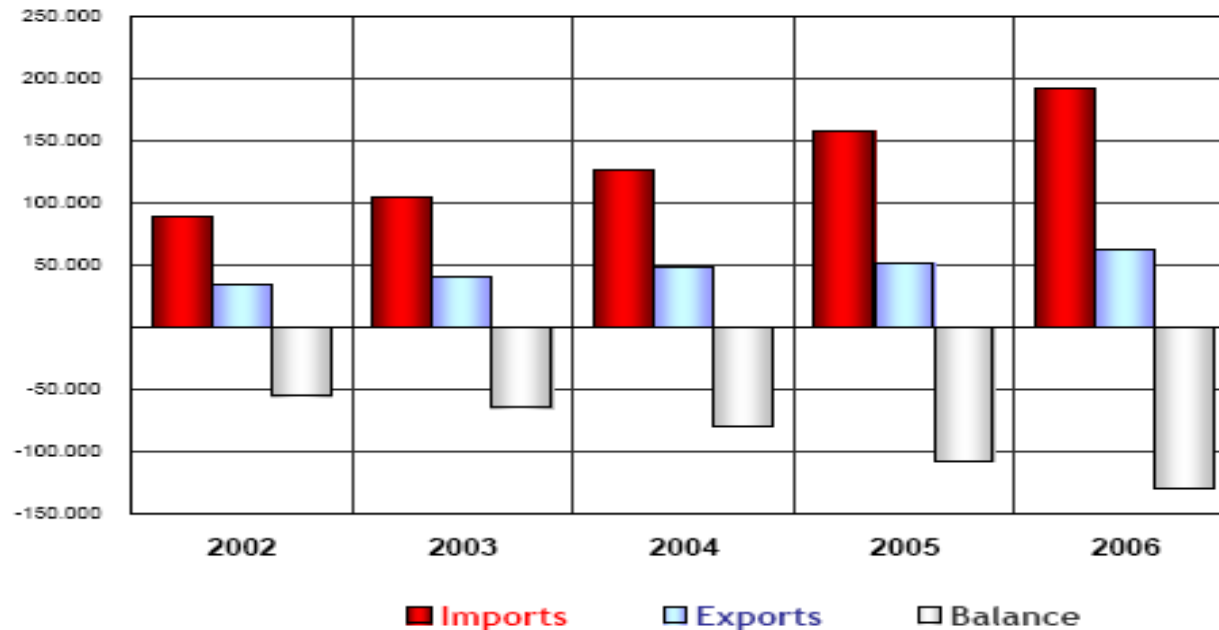
The major Trans-Asian routes are above all railway routes:

- 1. The Trans-Siberian, from the Baltic to Vladivostok.**
- 2. The so-called "TRACECA" corridor, along the Silk Road.**
- 3. A south line through the trans-Asian rail route through Turkey and Iran.**
- 4. A North-South line through Iran will improve maritime access to Central Asia.**



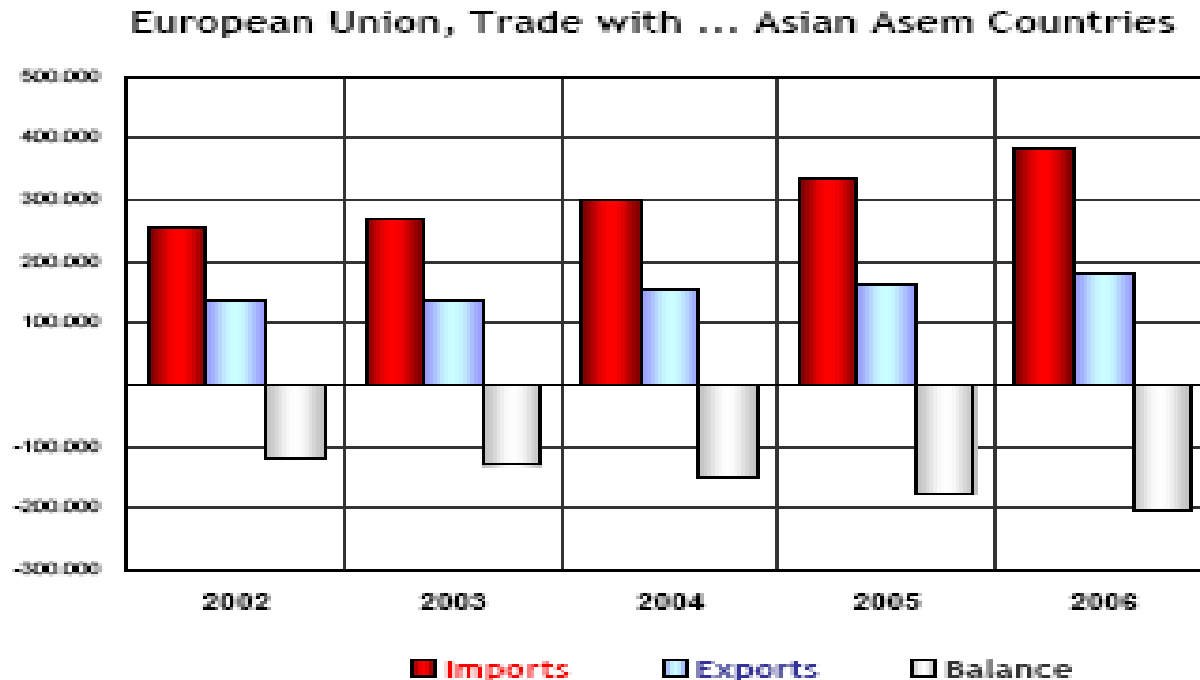
- In 2006, **China remained the European Union's 2nd largest trading partner** and it is the largest source of EU imports.
- The **EU** continued in its role as **China's first trading partner**.
- Chinese exports to the EU totaled approximately €191 billion, representing a year-on-year increase of almost 21%.
- EU exports to China increased by 22.5% to approximately €63 billion.

European Union, Trade with ... China



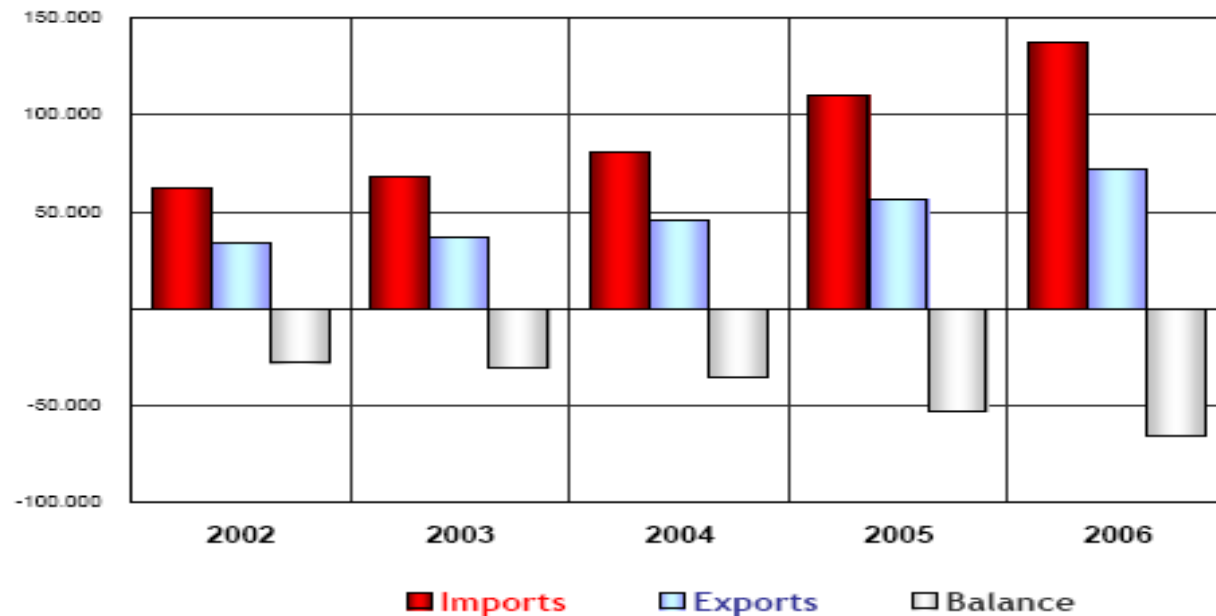


- Trade between EU and Asian ASEM Countries, in the period 2001-2006, grew from 390 to 564 billion euro
- Asian ASEM Countries: Brunei, China, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Thailand, Vietnam, Cambodia, Myanmar, Laos.



- **Russia is the EU's third largest trading partner**, after the USA and China.
- **The EU is by far Russia's main trading partner**, accounting for around 60% of its overall trade.
- EU bilateral trade with Russia is fast growing : +20% in yearly average.
- Total trade with Russia in 2006 amounted to €209 billion (compared with €85 billion in 2003). EU's trade deficit amounted to €65 billion.

European Union, Trade with ... Russia

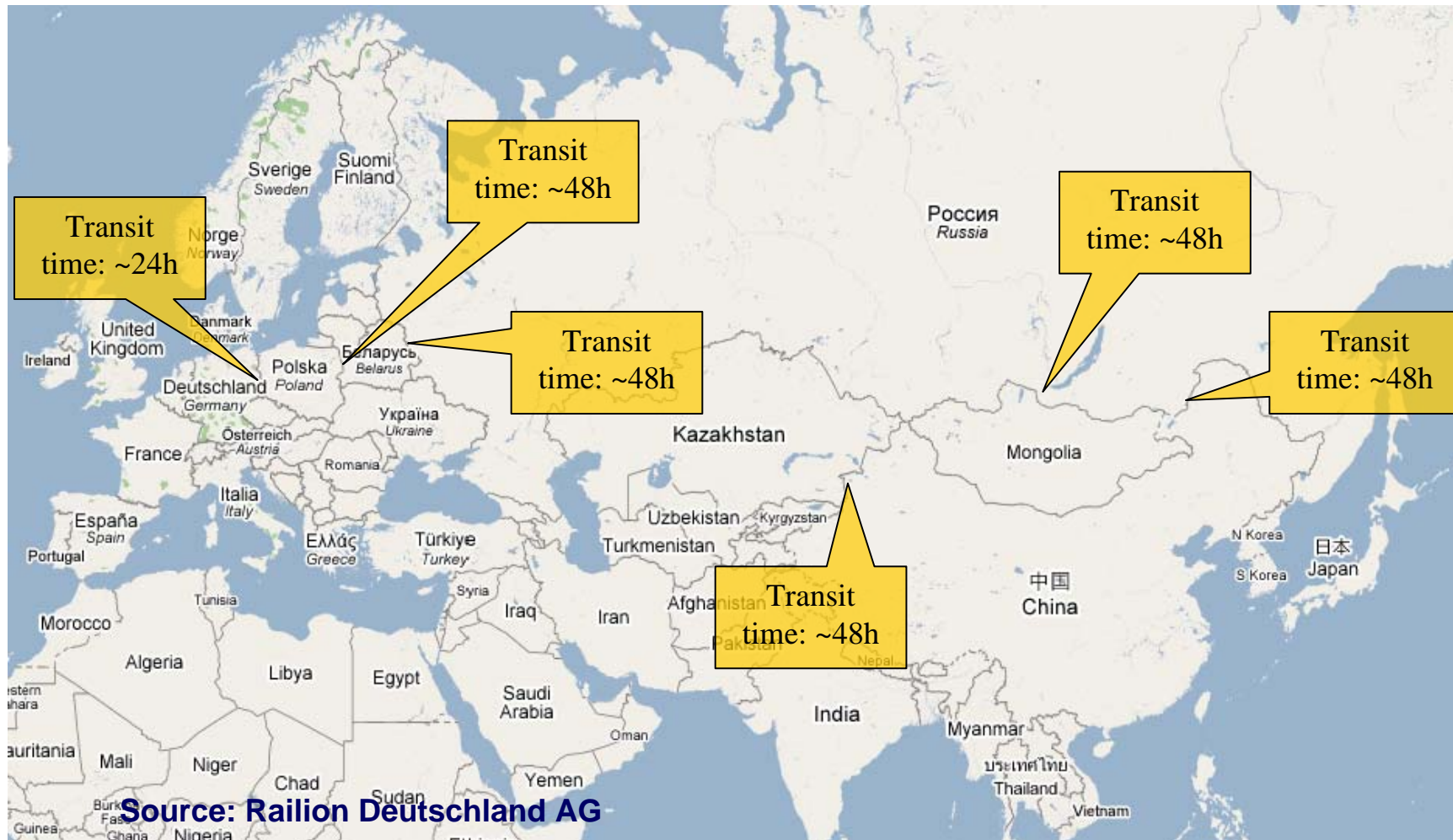


*Being competitive in a global market :*

- **International rail freight transport**
  - Currently, some 50% of rail freight services in the EU are international (imports, exports or transit)
  - The opening of rail freight markets, based either on Community legislation or national initiatives, has resulted in increased market entry and accelerated growth in recent years
  
- **Rail Supply Industry is capable to provide the necessary systems.**

### Existing transit rights

- Statute of freedom of transit, Barcelona (1921)
- Convention on Transit & Trade of landlocked states (1965)
- Convention on Law of the Sea (1982)



Source: Railion Deutschland AG

To shorten cross border waiting times for rail, two different approaches have to be followed in parallel:

## Technical Interoperability

- Infrastructure (rail gauges, track clearance, electrical systems, tunnel width, signalling etc.)
- Vehicle related issues (train control, electrical systems, communication, brakes etc.)
- Registration requirements for locomotives and wagons



In the short term: localise priorities and improve (i.e. at EU level: TSI definition)

In the long term: achieve extended technical interoperability to reduce waiting times to a minimum

## Administrative Interoperability

- National minded railway administrations, lack of electronic management systems etc.
- Legal issues between the EU/COTIF-Zone and the OShD-Zone
- Customs clearance requirements for rail freight



Huge potential for improvements even in the short term. Political support is necessary (i.e. at EU level: Cross Acceptance package)

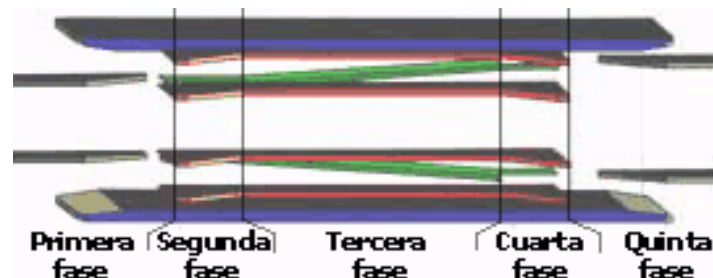
- **The rail supply industry provides innovative technological solutions for the interoperability of railway systems**
  - Examples of current industry solutions are
    - Signaling: multi-signaling systems and ETCS enables interoperability



- Power: Multi-system electric locomotives



- Gauge changing: systems available



- A doubling of traffic every 10 or 12 years over more than four decades inevitably puts pressure on the transport market and strains capacities
- Rail could take a bigger market share between Europe and Asia, specially from maritime transport
- Efficient operation of East-West rail lines could make available significant additional capacity (of several million TEUs) at competitive costs
- Innovative rail industry solutions could contribute to technical interoperability between railways
- Administrative obstacles need to be overcome

- Rail freight transport between Europe & Asia can become an economic and fast competitor to maritime transport, and a more ecologically-friendly means for carrying domestic and international freight than road transport



Providing competitive railway  
systems for increased rail traffic

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