



Euro-Asian transport links – opportunities for rail

Northern Dimension Future Forum on Transport
Brussels, 20 November 2018

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Development trends in Euro-Asian transport

Trend 1: Increasing trade volumes between EU and economies in Asia/China

Trend 2: Increasing interest by shippers and freight transport operators in rail transport between China and EU as complement to maritime transport

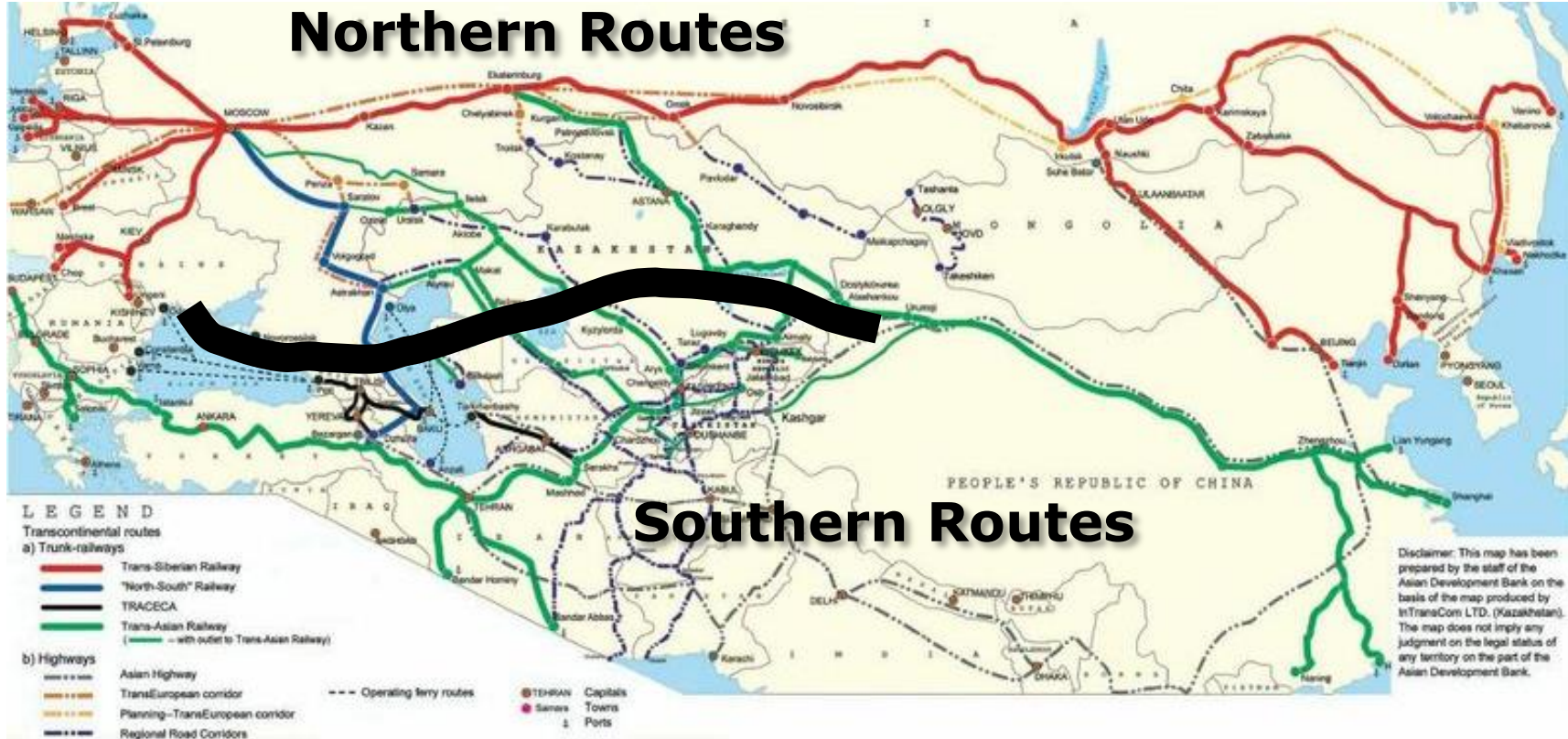
Trend 3: Russian initiatives to improve the Trans-Siberian rail landbridge in terms of capacity, transit time and transport efficiency

Trend 4: Chinese initiatives to develop new Euro-Asian transport routes (e.g. Iron Silk Road)

Route options for Euro-Asian rail freight

Northern Routes

Southern Routes



Comparative analysis of route options

Northern routes:

- **Most running via Trans-Siberian Main Line incl. branches**
 - **Trans-Mandchurian Route**
 - **Trans-Mongolian Route**
 - **Trans-Kazakhian Route**
- **All northern routes passing on a shorter or (most often) longer section through Russia**
- **Few border crossings**
- **Distance advantage from most parts of China to most parts of Europe**

Comparative analysis of route options

Northern routes (cont.):

- **High standard and good state of infrastructure – further improvements of capacity and standard on-going**
- **High transport efficiency due to relatively generous infrastructure standards**
- **High operational performance in terms of quality (punctuality) and reliability**
- **Use of joint CIM/SMGS consignment note facilitates transport**

Comparative analysis of route options

Northern routes (cont.):

Challenges:

- **Need for change of gauge (1435 → 1520 → 1435)**
- **Geographical alignment less suitable to serve economies in Southern Asia, e.g. Middle East and India (though possibility currently emerges to combine Northern Routes with new RU-AZ-IR North-South corridor)**

Comparative analysis of route options

Southern routes:

- **Possibility to create a complement / alternative to Northern routes (creating certain "route competition")**
- **In certain route options in the long term potentially no need for change of gauge (all standard gauge route)**
- **Geographically suitable to link economies even in Southern Asia (e.g. Middle East and India)**
- **Implementation facilitated under the Chinese OBOR-initiative**

Comparative analysis of route options

Southern routes (cont.):

Challenges: All Southern route options face (often severe) challenges regarding:

- **Missing links – currently no (convenient) continuous rail route EU – China available**
- **Weak links – parts of current rail links are of low standard**
- **Distances – in many cases transport distances EU – China are longer via the Southern routes**
- **Political instability along certain route sections**

Comparative analysis of route options

Southern routes (cont.):

Challenges (cont.):

- **Topography – major mountaineous areas to be passed**
- **Certain route options require combination with sea transport (across Black Sea and/or Caspian Sea)**
- **Many border crossings – creating interoperability and management issues**
- **Lack of harmonised regulatory framework**
- **No common target standard for entire routes**

Connectivity of Euro-Asian rail links with the EU rail network

Entry points

- **Baltic seaports**
- **EU eastern land border**
- **Black Sea seaports**
- **EU-Turkey border**
- **Eastern Mediterranean seaports**

EU Rail Freight Corridors concerned

North Sea-Baltic RFC 8

**Med. RFC 6 / North Sea-Baltic RFC 8 /
Rhine-Danube RFC 9 / Amber RFC 11**

OEM RFC 7 / Rhine-Danube RFC 9


OEM RFC 7 / Alp.-Westbalkan RFC 10

OEM RFC 7

Connectivity of Euro-Asian routes with the EU TEN-T Network

All major entry points connected by TEN-T network and most also by EU Rail Freight Corridors – but:

- **Generally lower technical standard on EU railway lines (esp. train length and axle-load)**
- **”Incompatible” train parameters hamper efficiency**
 - **Even TEN-T target standard of 740m is ”incompatible” with the typical train length of 1000m on Euro-Asian rail routes east of the EU !**
- **Transshipment 1520 ↔ 1435**
- **Border procedures at EU border**
- **Border crossings within EU**



EU railway links are a bottleneck on Euro-Asian rail routes in terms of standard, transport efficiency and reliability !

Recommendations

- ❖ **Improve capacity and operation of transshipment terminals 1520-1435**
- ❖ **Solve border crossing issues, i.a. at EU-Turkey border**
- ❖ **Investigate target standard beyond TEN-T and TSI minimum requirements on all relevant rail links in EU to strategic border crossings**
- ❖ **Investigate optimised integration and connectivity of 1435- and 1520-networks/lines in Central-Eastern Europe**
- ❖ **Develop cooperation with OSJD corridors**
- ❖ **Promote EU experience in freight corridor management, i.a. along Euro-Asian Southern routes (many borders)**

Recommendations (cont.)

- ❖ **Investigate optimised network connectivity of 1435- and 1520-network in Central-Eastern Europe**
 - ❖ **Rail Baltica – new rail network interfaces in Baltic states**
 - ❖ **LHS-line in Poland**
 - ❖ **Broad gauge line in Slovakia – extension to Bratislava and Vienna ?**
 - ❖ **Broad gauge systems in Eastern Hungary and Romania**
 - ❖ **...**

Thank you !

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