Railway transport along Euro-Asian corridors

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UNECE transport infrastructure projects

Euro-Asian Transport Links (EATL)
Trans-European Motorway and Trans-European Railway projects (TEM & TER)
Goal of Euro-Asian Transport Links
Phase III

Identify measures to strengthen the **operational capacity** of the inland transport links between **Europe** and **Asia**.
Findings of EATL Phase III

• Economic growth and growth of international trade is not driving the increase in freight flows as before

• There are specific commodity groups traded between Europe and Asia for which inland transport modes can compete with maritime and air modes

• Markets created new opportunities - e.g. e-commerce - that can drive freight flows on inland routes between Europe and Asia

• Railway transport is developing on EATL routes – importance of block trains, however further improvements are needed

• Road transport does not operate on long distance – need to define its role – local/regional to complement long-distance rail

Need for: competitiveness, integration, intermodality and flexibility
EATL shift in transit cost and time (2006-17)

Source: CSIS/ Xu Zhang, Eurasian Rail Freight in the OBOR Era, Cranfield University, UK
China-Europe trade by volume (2007-2016)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>0.8%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Air</td>
<td>1.5%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Road</td>
<td>5.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Sea</td>
<td>92.0%</td>
<td>94.0%</td>
</tr>
</tbody>
</table>

Source: Eurostat, European Union, analysis by Infrastructure Economics Centre (CEI)
## Eurasian transport capacity by mode

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-trailer truck</td>
<td>2.65 TEU</td>
</tr>
<tr>
<td>747-400F</td>
<td>4–5 – 6.625 TEU</td>
</tr>
<tr>
<td>41 car intermodal train</td>
<td>82 TEU</td>
</tr>
<tr>
<td>Panamax</td>
<td>3,000 – 3,400 TEU</td>
</tr>
<tr>
<td>Post Panamax/Panamax Plus</td>
<td>4,000 – 8,000 TEU</td>
</tr>
<tr>
<td>New Panamax - Triple E</td>
<td>12,500 – 18,000 TEU</td>
</tr>
</tbody>
</table>

EATL conclusions and way forward

• **Eastbound cargo traffic < Westbound** (Westbound railway traffic subsidized) – differentiation of trade flows required

• Need to **harmonize operating standards** (gauge-width, signaling and radio systems, train length and weight standards, energy source etc.)

• Need for **corridor-specific work plans**, multi-stakeholder coordination efforts (public & private sector), common goals and KPIs → example of **CCTT**
EATL conclusions and way forward

- Address **missing infrastructure links, border crossing** and transit obstacles

- Acknowledge impact of **intelligent transport systems**, the **digitalization** of transport documents, the full **computerization** of BCPs, satellite **track and trace** services, the introduction of **autonomous vehicles** can have on transport operations along Euro-Asian corridors

- Need to **increase productivity of railway operations**: longer and heavier trains, shorter block intervals imply better use of the network capacity and reduced transportation costs

- Need to **unify railway regimes along EATL railway routes** – absence of one contract of carriage, one liability and one consignment note decreases reliability of the services
Euro-Asian Railway Facilitation

- CIM-SMGS common consignment note
- E-common consignment
- Creation of a Unified Railway Law
EATL routes 1, 2 and 6

• China – Mongolia – Kazakhstan – Russian Federation – Belarus – Poland

• Specifics:

  i. Highest concentration of block trains on EATL routes, mostly operated by large freight forwarders

  ii. Average travel time of 14 days (China-Duisburg)

• Needs:

  i. Difficult climatic conditions

  ii. Modernization of border crossing procedures required, e.g. lack of an agreed transit tariff

  iii. Increase in container platforms fleet and requirement to increase length of block trains
EATL routes 3, 4 and 7

- China – Central Asia Republics – Turkey – Romania – Ukraine

- Needs:
  
  i. Missing infrastructure links, maintenance required
  
  ii. Border crossing facilitation measures required
  
  iii. Increased cooperation among railway undertakings in order to perform block trains operations (common tariffs / time schedules) required
EATL routes 5, 8 and 9

• North-South corridors

• Specifics:
  
  i. Multi-stakeholder cooperation mechanisms established and operational
  
  ii. Designated working group meetings held regularly

• Needs:

  i. Missing links – infrastructure investments are requested
  
  ii. Border crossing facilitation required
Intermodality & digitalisation

Successful E-TIR pilots:

- Iran - Turkey
- Georgia - Turkey
Soon available on a GIS platform!

Will include:

• Data on transport networks and modes
• Data on corridors, infrastructure projects
• Traffic and cargo flows
Real time monitoring of block train services

- Exact time
- Exact location
- Safety & security
Questions/ feedback

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