UIC’S ROLE IN CORRIDOR DEVELOPMENT

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International Railway Advisor for Russian and CIS affairs,
UIC, Freight Department
UIC role - Promoting the development of rail transport at world level, in order to meet the challenges of mobility and sustainable development

1. Know How, technical and operational expertise
   ✓ Technical solutions
   ✓ Regulations, standards, best practises

2. Specifications
   ✓ Standards
   ✓ Interfaces
   ✓ Studies
   ✓ Interoperability for international rail corridors

3. Exchange platforms, Innovation: new ideas, new concepts
   ✓ Project management
   ✓ Support policies of development of key infrastructure projects

4. Forums
   ✓ Platforms
   ✓ Study groups
   ✓ International conferences
   ✓ Congresses
Active cooperation of members on freight projects
How does UIC support the development of intercontinental rail links?

<table>
<thead>
<tr>
<th>Role of UIC in support of intercontinental links</th>
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<tbody>
<tr>
<td>1. Provide a platform for exchange for all interested stakeholders (including customers)</td>
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<td>2. Collect existing information on corridors (including terminals, accessibility and harbours) and establish links with other associations and existing working groups (Icomod, Containerisation etc.)</td>
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<td>3. Identify success conditions and target markets</td>
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<td>4. Coordinate process towards interoperability in terms of infrastructure, technical conditions (rolling stock, signalling), operations, security, information flow/communication and railway law (integrate and support work of OTIF, CIT, OSJD)</td>
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<td>5. Develop product features and business model</td>
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<td>6. Commit key stakeholders to form project consortium and facilitate demonstration phase</td>
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GTE involvement

Commercial traffic on corridor (no GTE involvement)
The ICOMOD project assessed the viability of a rail link between Asia and Europe

PROJECT OBJECTIVES

- Establish **viability of a rail link** between Asia and Europe
- Assess **market potential** and quantify future rail scenario
- Assess **routes and terminals** between Asia and Europe
- Define **required steps** to attract more Asian-European traffic to rail
Rail transport from Asia to Europe has a significant market potential

Executive summary (1/2)

• Long-term (2030), rail transport between Asia and Europe is forecasted to reach a level of around 950,000 TEU p.a. This includes traffic from East Asia, Mongolia and Kazakhstan to the EU in both directions. Traffic from South Asia could add another 150,000 TEU in the long-term.

• Already today, rail could hypothetically achieve a potential of 480,000 TEU p.a. if requirements were already fulfilled.

• The rail potential is derived from a volume-based forecast with subsequent translation into TEU. It analyzes existing transport volumes and applies a growth scenario for the future.

• Shift factors were applied to estimate the amount of TEU that could be attracted by rail from maritime transport. Shift factors were differentiated by commodities and, within China, by regions based on their proximity to the coast.

• Currently, four viable route options exist: via port of Vostochny, via Manzhouli/Zabaikalsk, trans Mongolia – all of which continue on the TSR –, and trans Kazakhstan via Alashankou/Dostyk. TSR routes benefit from efficient and modern infrastructure, trans Kazakh routes are shorter.

• In the long-term, route and terminal infrastructure as well as rolling stock and container equipment will need to be modernized and adapted to future growth.
To make Eurasian rail transport successful, rail services need to be improved significantly along five key levers

Executive summary (2/2)

- **Time** is the key differentiation for rail transport. Only fast and reliable transport times enable benefits compared to sea and trigger time-based monetary benefits for shippers.

- **Predictability** is key to shippers/customers. Reliability allows for price premiums if time-sensitive or production-critical materials/goods bear high opportunity costs.

- Rail generates highest benefits in hinterland areas for high-value goods. Continental consolidation terminals should be optimized. High-value goods also qualify for rail from other origins.

- Rail can compete with a comprehensive price view, i.e. needs to include time-based benefits like working capital savings and lead time benefits in its pricing strategies. Fast and reliable transport times are crucial to justify a rail price premium.

- Rail needs to complement its westbound services with eastbound solutions to optimize rolling stock and container movements and availability at key origins. Infrastructure needs to be improved to accommodate the rail volumes and timing/reliability requirements.

- **Frequency** of services needs to be increased and adapted to specific customer needs. Customs procedures need to be facilitated and, long-term, transferred into a transit customs logic with customs being handled in origin and destination terminals only.
There are four key railway corridors from China to Europe all of which pass through Russia

Main rail routes Asia to Europe (schematic)

1) TRACECA (Transport Corridor Europe-Caucasus-Asia) route project
To exploit the huge market potential, Eurasian rail services need to be improved significantly along key levers

| Transport time | • Time is the **key differentiation** between rail and maritime transport.\(^1\) Only fast transport times enable benefits compared to sea and trigger monetary benefits for shippers  
  • **Priority** should be given to reliability/predictability rather than winning 1 or 2 days more |
| Reliability | • **Predictability is key** to shippers and customers  
  • Reliability allows for price premiums if time-sensitive or production-critical materials/goods bear high opportunity costs; reliability might differentiate rail if being further improved |
| Target markets | • Rail generates highest benefits in **hinterland areas for high-value goods**. It should optimize its product offer for these interfaces (continental consolidation points)  
  • Look for **balanced traffic** or **combine shorter eastbound traffics** along way back to Asia |
| Pricing | • Rail can compete with a **comprehensive price view**: D2D, working capital, lead time  
  • Working capital savings, time-to-market and built-to-order benefits allow for a price premium, but are highly dependent on fast and reliable transport times |
| Infrastructure | • Infrastructure requires **continuous updates** and extensions for long-term rail success  
  • In addition, rail needs to complement its westbound services with eastbound solutions to **optimize rolling stock and container availability** at key origins |
| Frequency, flexibility | • Unpredictable frequency reduces attractiveness of rail. A **regular service** is entry condition for many customers  
  • Target frequency of at least 1-2 departures per week, ideally more than 3 |
| Customs | • Improvements **urgently** required, but also related to mistakes by operators/shippers  
  • **CIM/SMGS consignment note** and paperless transport keys to accelerate border crossing  
  • **Transit customs logic**: customs only at O/D terminals |

\(^1\) Of course also to air transport, but the bulk of the volumes which rail could attract comes from maritime transport
Rail should focus on specific commodities – Anything else only opportunistically

Volumes – Analysis of interview

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<tr>
<th>COMMODITIES</th>
<th>TARGET FOR RAIL</th>
<th>COMMENTS</th>
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<tr>
<td>High-value</td>
<td></td>
<td>• Highest working capital savings, also potential from non-inland locations</td>
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<td>Automotive, parts</td>
<td></td>
<td>• Time sensitive, just-in-time production, high value, often heavy</td>
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<tr>
<td>High-tech, electronics,</td>
<td></td>
<td>• Mostly confirmed as target commodity, but also contradicting assessments (temperature sensitive)</td>
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<tr>
<td>computers</td>
<td></td>
<td>• Mostly high-value, sometimes high volume at low weights</td>
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<tr>
<td>Chemicals</td>
<td></td>
<td>• Contradictory assessments, low containerization for high-value chemicals</td>
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<td></td>
<td></td>
<td>• Dangerous goods mostly seen critical due to complex permissions, but also critical on sea. Potential for niche positioning of rail</td>
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<tr>
<td>Spare parts</td>
<td></td>
<td>• Time sensitive, but singularly mentioned in interviews only</td>
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<tr>
<td>White cargo</td>
<td></td>
<td>• Only singularly mentioned in interviews; high volumes and high weight</td>
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<tr>
<td>Health care</td>
<td></td>
<td>• Only singularly mentioned in interviews</td>
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<tr>
<td>Fashion</td>
<td></td>
<td>• Time-sensitive character before start of seasons, otherwise price sensitive</td>
</tr>
<tr>
<td>Food</td>
<td></td>
<td>• Only singularly mentioned in interviews; temperature/cooling issues</td>
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1) Partly overlapping
The Trans-Siberian Mainline: a link between Europe and Asia
Transport products on TSR: China – Russia – Europe

Regular service: Chongqing-Duisburg

Transit time
12-17 days
The 1520 mm rail system could become a strategic turntable for major traffic streams
Electronic data exchange of Consignment Note (ECN)
- between all involved parties;
- Simultaneously with data entry.

Paperless Transport
- Information flow will be independent from and ahead of the physical train movement

Data available at any time
- By all kind of technical devices as print out and where needed
- Rail production and commercial facilities
- Customs and other supervisory authorities

Interoperable in different legal areas (CIM/SMGS)
Unified Rail Transport Law

SMGS

COTIF/CIM

Unified Rail Transport Law
Transport Time

- 40-45 days
- 20-23 days
- 15-18 days

11 000 km
EU n°913/2010
Defines, on 9 initial corridors, rules for the:
- Selection
- Organization
- Management
- Indicative investment planning
- etc.

NO COORDINATION BETWEEN CORRIDORS REQUIRED BY LEGISLATION
Geographic coverage of the concept – any region of the world

UIC
Global Team of Experts on International Transport Corridors (GTE)

Close cooperation between all stakeholders - international organisations, business associations and railway companies of the world

Gathered experience and best practices

Universal approaches to international transport corridors development IN ANY REGION OF THE WORLD, as well as to increasing their efficiency in the system of regional, interregional and global trade
Railway freight corridors: definition criteria

- Freight traffic density
- Freight transportation volume
- Daily traffic handling capacity, including transit train pairs
- Availability of dry ports, logistic and cargo distribution centres along the route
- Possibility of using common/unified documents (consignment notes)
- Possibility of electronic data exchange, including electronic consignment notes, digital signature etc.
- Availability of “one-stop” solutions at border crossings
- Time needed for border crossing
Test container train launch technology

- Providing cargo base, wagons and containers for the test train.
- Defining the technical and operational profile of the test train.
- Ensuring the usage of unified transportation documents (e.g. the common CIM/SMGS consignment note).
- Agreeing the route for the test train.
- Defining the test train schedule.
- Agreeing the through tariff rate for the test train.
- Defining the train operator and forwarders on each territory.
- Performing the test run, monitoring.
- Evaluating results and preparing recommendations.
The sessions of the 4th UIC Global Rail Freight Conference will focus on the latest developments and perspectives in the following areas:

"Harmonisation of Procedures and Standardisation"
"Spatial Planning and Rail Freight"
"Logistics and Integration on Rail Corridors"
"How to gain new Market Shares?"
"Innovation and New Technological Trends", etc.

In parallel to the conference and session programme, "GRFC 2014" will host a professional trade exhibition at the Hilton Stadtpark Vienna.
Thank you for your kind attention

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Group of Experts on Euro-Asian Transport Links, 10th session