Eurasian Railway Corridors and future North Atlantic Port connections - strategic issues

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The content of my presentation

- The Eurasian Land Bridge – introduction and market opportunities
- Permanent vs non-permanent challenges
- A strategic view on future port connections and intermodal transports
The Europe-Asia (Eurasian) Land Bridge

Different names

- “The old Silk Road”
- “The EurAsian Land Bridge”
- “The New Silk Road”
- East-West......”

Same idea:

The over land connection between Asia and Europe
Main routes Tang Dynasty (618-906)

Marco Polo (1254-1324)
Main EurAsian Railway Connections

Moscow

Beijing

Hong Kong

Shenzhen

Los Angeles

NAEC

Washington

Main EurAsian Railway Connections

Bosphorus

Vostochny

St. Petersburg & Baltics

Norwegian ports

Rotterdam or other Continental ports

Moscow

Urumchi

Marco Polo

Shanghai

Xi'an (Changn)

Hong Kong

Shenzhen

Murmansk & Arkangelsk
The Land Bridge potential

- The Europe Asia Land Bridge represents the shortest distance between
  - Asia and Europe, and
  - Asia and the North American East Coast
- Well organized it should be faster and cheaper than competing modes, and offer the same quality and reliability.
- The Europe Asia Land Bridge can connect the largest merchandise trade lanes of the world
  - Europe-Asia
  - Asia – North America (East Coast)
The East-West market potential
Along the Eurasian Land Bridge

The major trade regions of the world are Asia, Europe and North America

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Some land Bridge challenges

- Service and market orientation
- Culture, language, politics, etc.
- Security & safety
- Logistical chain and organization
- Discontinuous Points (borders, gauge etc)
- To many players involved
- Price & transit time
- Sub-opt. National and regional “monopolies”
- Capacity (rolling stocks, containers etc)
- Conditions given by nature
- Market perception, image etc
- Documentation, customs etc
- Market conditions
- Finance
- Quality (in general)
- Transparency
- Information, tracing etc
- Infrastructure (standard, capacity etc)
- Congestion
- Demography & development level
- Conditions given by nature

Challenges
Railway development is long term, and we should also look for the corridors long term competitive advantages.

Different market areas:
- Europe-Asia is one issue
- Intermodal Asia-North America is another issue
Some challenges are “given by nature” (or more or less permanent)

- Most Eurasian railway corridors faces challenges when European ports are to be connected
- Some can be solved and some are more permanent
- If there are alternative transport routes, it may be wise to avoid permanent barriers like for instance:
  - Break of gauge
  - Port and maritime regions exposed to ice and cold climate
Note: Several countries have more than one gauge. The figure shows the main gauges and country borders. For some countries two colors are used, indicating two major gauges.
GAUGE CHANGE COSTS & SOLUTIONS

COSTS
- TIME CONSUMPTION
- PHYSICAL PAYMENTS
- CAUSED BY INVESTMENTS
- INCREASED RISK
- = LOSS OF INCOME

SOLUTIONS
- Trans loading (Gantry, fork-lift, reach stacker etc)
- Changing axles
- Gauge change device
- Building new railways
1520 mm area: the link between the main future markets

1520 мм: участок между двумя крупнейшими рынками

Strategic impact:
Choose a corridor without gauge break, if possible....
MARITIME REGIONS IN NORTHERN EUROPE USUALLY EXPOSED TO ICE CHALLENGES

Shaded area is exposed to ice

Main Russian

North Finland March 4 - 2010
“Ice breakers on Friday were working non-stop to clear northern Germany’s frozen harbours following a return to frigid temperatures in recent days.

Ships arriving from the Baltic Sea along the coast of the state of Mecklenburg Western-Pomerania can only reach harbours with the help of the breakers after the formation of new ice overnight, spokesperson for the BSH federal shipping office Natalija Schmelzer said.

The weekend weather forecast holds more freezing temperatures and heavy winds which will likely lead to thicker ice along the coasts, she added.

The ice breakers “Arkona” and “Görmitz” have been on duty without rest since the New Year to help freighters reach Stralsund, Greifswald, Vierow and Wolgast and beyond – but experts predict that it will still be several weeks before ice up to 40 centimetres thick disappears completely.”

Source: The local Germany’s new in English (March 5-2010)
Alternative East-West railway routes to/from the Atlantic Ocean

- **Arkangelsk**
  - Ice free
  - No gauge break
  - Ice challenges

- **Murmansk**
  - Ice free
  - No gauge break
  - Open Sea (Atlantic)

- **Narvik**
  - Ice free
  - No gauge break
  - Open Sea (Atlantic)

- **Kirkenes (project)**
  - Ice free
  - No gauge break
  - Open Sea (Atlantic)

- **Skibotn (project)**
  - Ice free
  - No gauge break
  - Open Sea (Atlantic)

- **Finland/Sweden**
  - Permanent gauge break

- **Baltic's**
  - Ice challenges
  - Growing traffic/congestion
  - Environmental challenges

- **European continent**
  - Long railway distance
  - Several countries and border crossings
  - Permanent gauge break
Based on these long term criterias we are left with only one intermodal port in the Northern Region of Europe

- Murmansk in NW Russia

And two projects/ideas included in Finlands new Arctic strategy, -both connecting North Norwegian ports using Finnish/Russian gauge:

- Skibotn and Kirkenes
THANK YOU FOR YOUR ATTENTION

(I BELIEVE THIS SHOULD BE A GOOD START FOR DISCUSSIONS DURING TO NIGHTS DINNER)
Barents railways & Ishavsbanken

- a new connection to the Atlantic

Legends:
- Standard gauge
- Broad gauge
- Broad gauge project: ****
- Permanent gauge break: ⬤

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