



Developing Alternatives to the North Range Ports Systematic Use of Hinterland Connections

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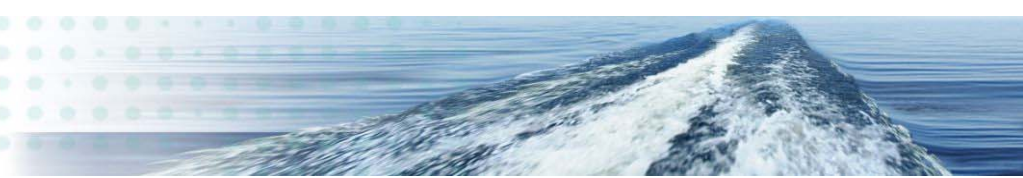
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Alternatives to North Range Ports by systematic Hinterland connections

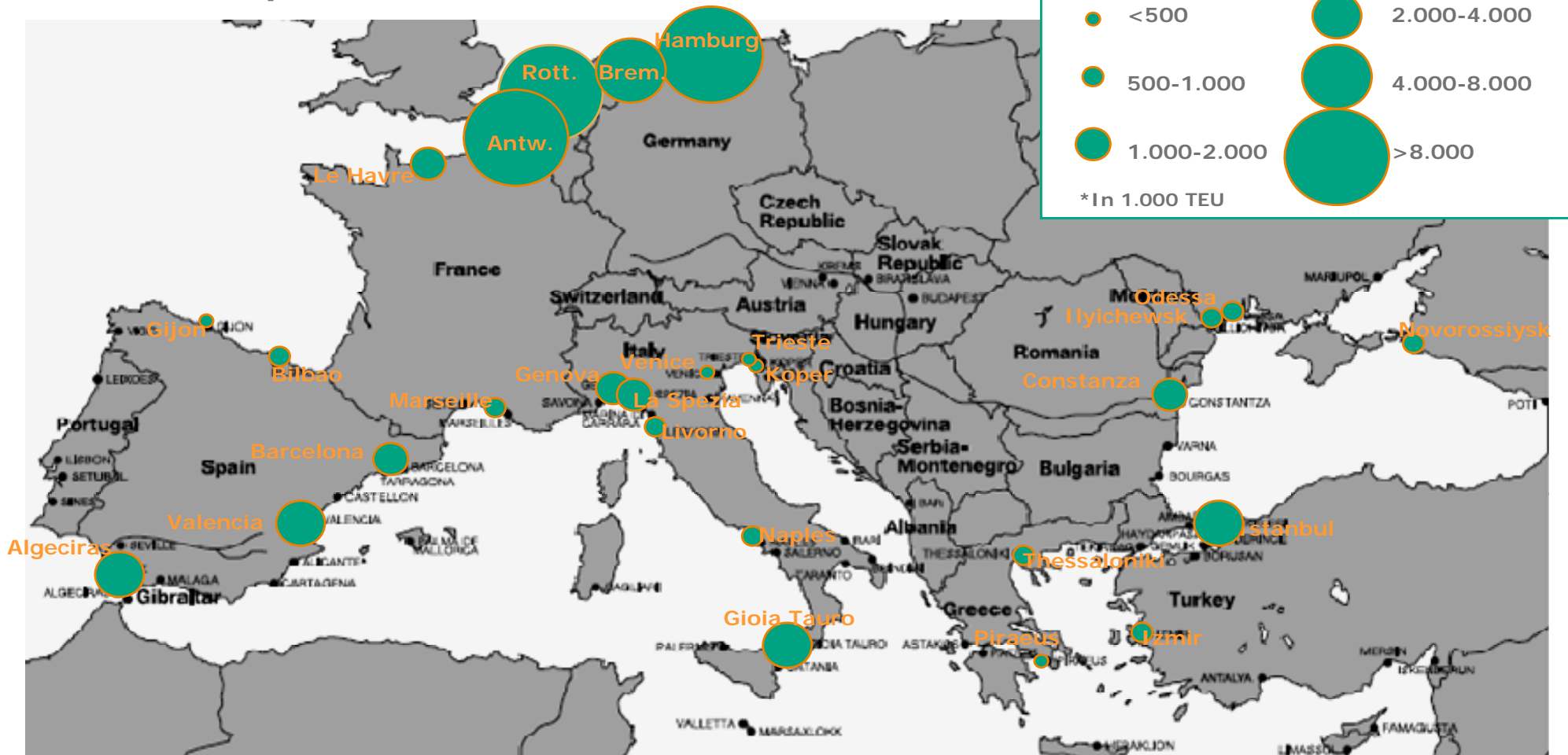
Content

1. North Range Ports - Examples
2. Mediterranean Ports - Examples
3. Comparison of Hinterland Network
4. Conclusions

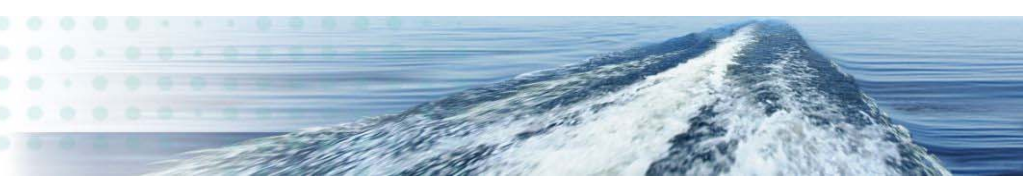


Alternatives to North Range Ports by systematic Hinterland connections

Main European Container Ports *

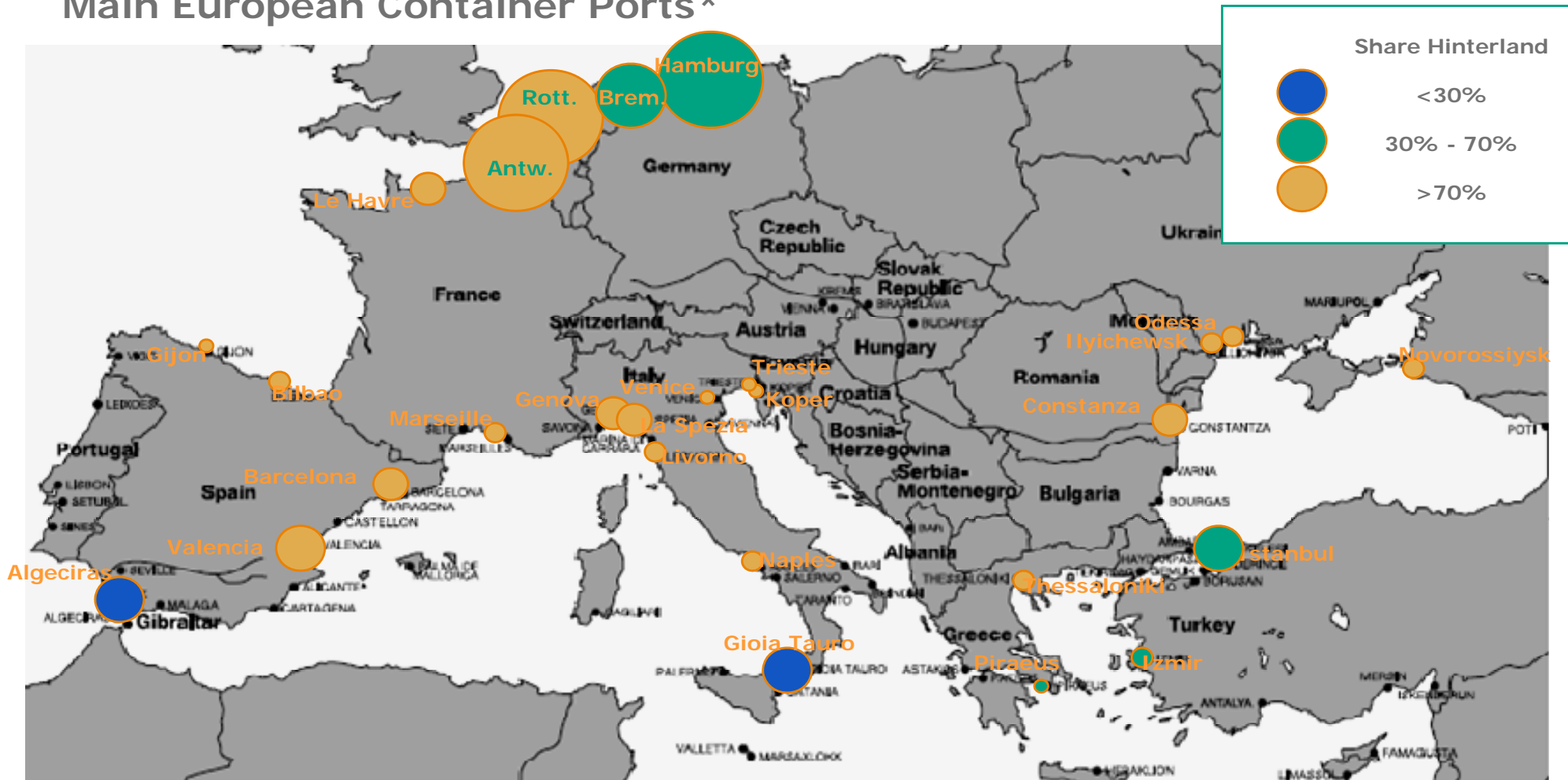


Significant dominance of North Range ports in container volumes



Alternatives to North Range Ports by systematic Hinterland connections

Main European Container Ports *

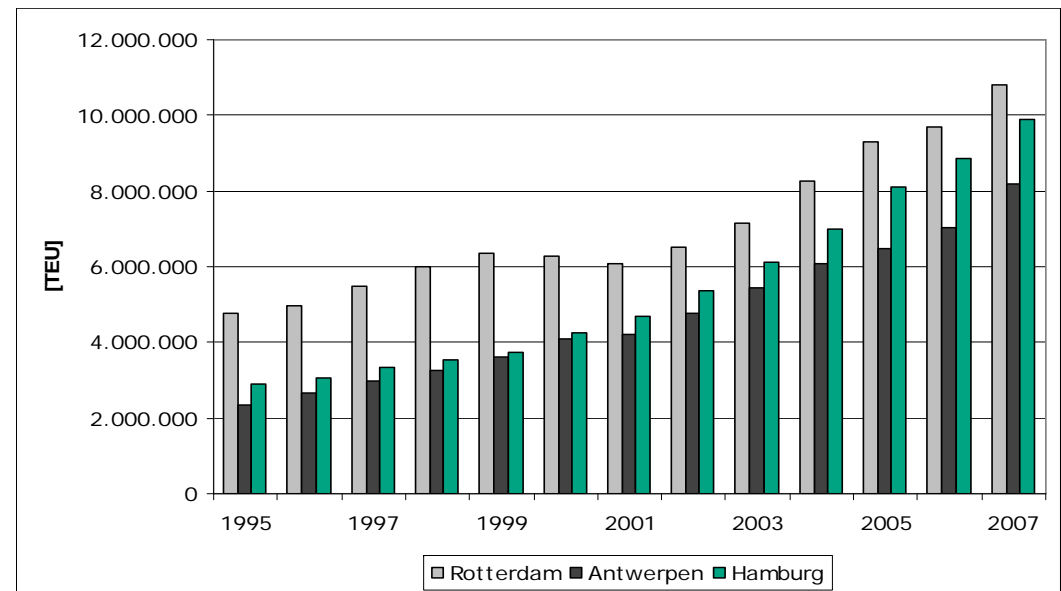


Clear separation between feeder ports and final destination ports

Alternatives to North Range Ports by systematic Hinterland connections

Port of Hamburg - Growth Factor Hinterland Connectivity

- ▶ Bremen/Hamburg port operators started in early 1990's with private rail operations
- ▶ Open access to all railway companies leads to early competition with German state railway and as consequence increased service Quality
- ▶ Drastic reduction of rail prices is one consequence
- ▶ Transport flows strictly concentrated on a few number of Hubs in the Hinterland
- ▶ Strong improvement of rail competitiveness compared to road

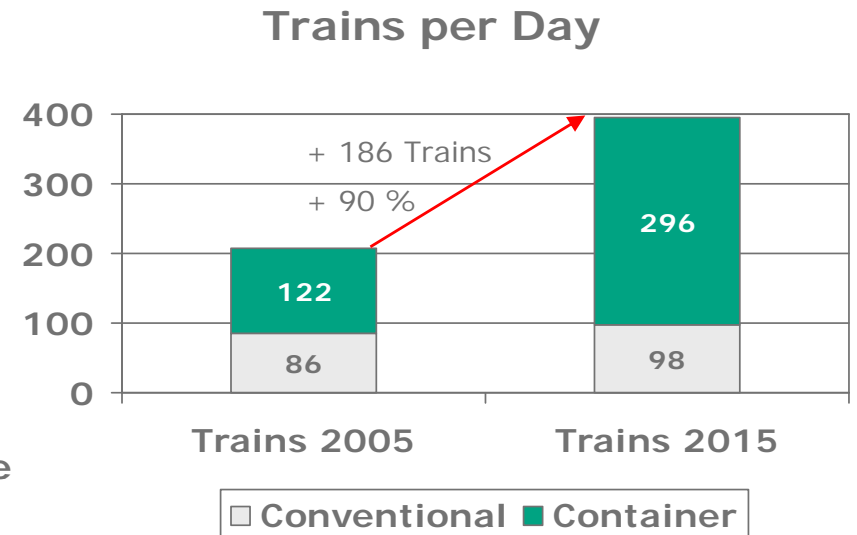


- ▶ **One key factor for the successful development of the Port of Hamburg in the last 15 years is the attractive railway hinterland connection.**

Alternatives to North Range Ports by systematic Hinterland connections

Port of Hamburg - Volume Development

- ▶ The Development is driven by development of container traffic
- ▶ While container volume doubled, rail volume grew 4 times!



▶ **Consequent management of rail activities grew the business**

Alternatives to North Range Ports by systematic Hinterland connections

North Range Ports - Modal Split Rail

- Bremerhaven: 40 % ¹⁾
- Hamburg: 30 % ¹⁾
- Amsterdam: 12 % ²⁾
- Antwerpen: 10 % ¹⁾
- Rotterdam: 9 % ³⁾



Best practice for modal split rail in hinterland transportation is 30% - 40%,



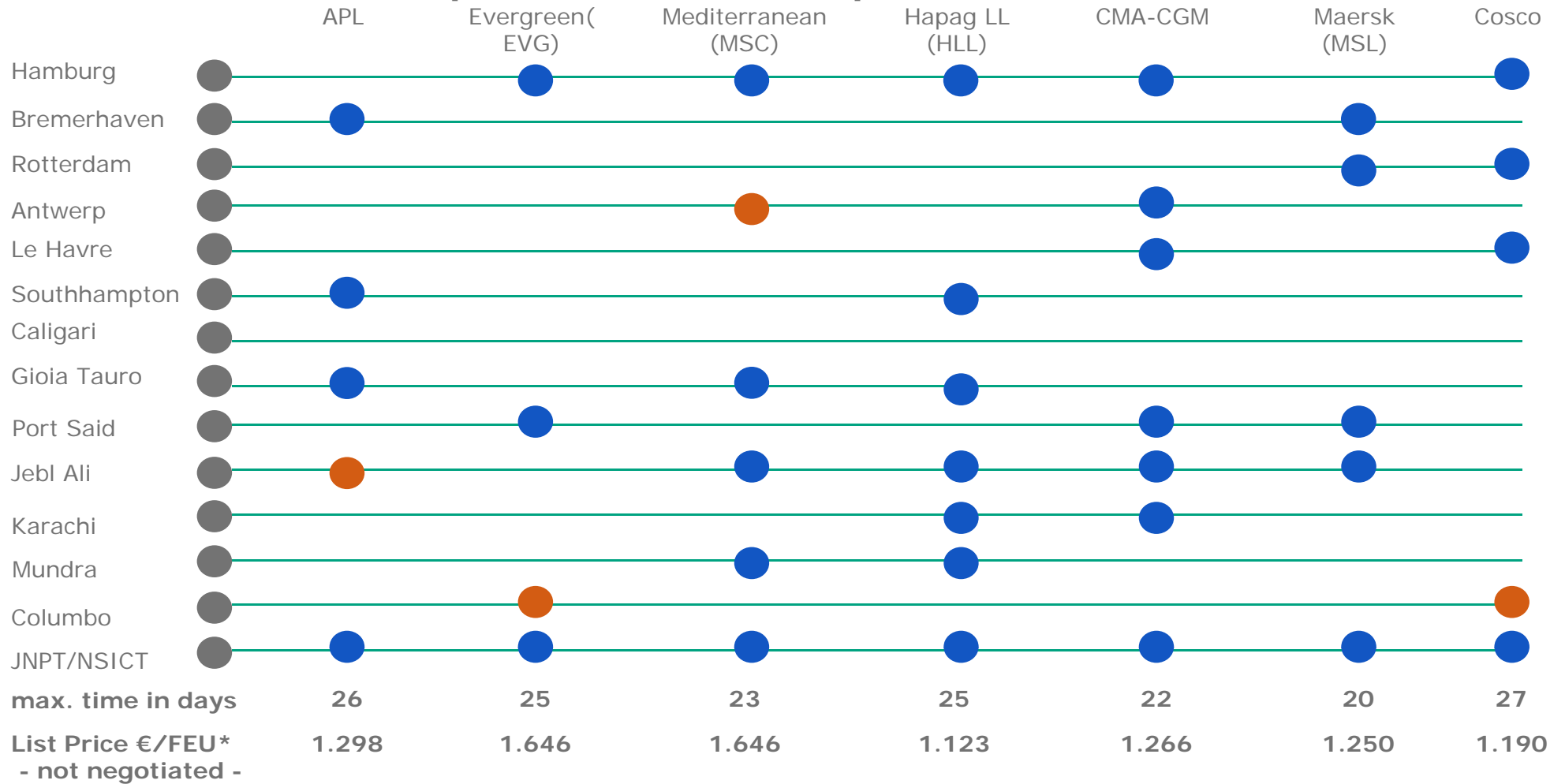
- **if the railway operation is very efficient**
- **if the railway infrastructure is modern and provides a sufficient capacity**
- **if the hinterland network provides excellent conditions**

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Alternatives to North Range Ports by systematic Hinterland connections

Service Providers Competitiveness - Example link to India



The available connections influence feasibility for each transport case

Alternatives to North Range Ports by systematic Hinterland connections

Port of Koper - Example of Sea Transport Alternatives

					Transit (Days)	Costs (€/FEU)
Option 1	North Germany South Germany	Consolidation, Hamburg	Hamburg Port (HHLA)	JNPT Port, Mumbai	26	2.064
Option 2	North Germany South Germany	Consolidation, Rotterdam	Rotterdam Port	JNPT Port, Mumbai	24	2.038
Option 3	North Germany South Germany	Consolidation, Bremerhaven	Bremerhaven Port	JNPT Port, Mumbai	24	1.927
Option 4	North Germany	Plant South Germany	Koper Port	Giaio Tauro, Italy	29.5	2.104



Alternative via Bremerhaven was in this case the most cost efficient supply chain to India

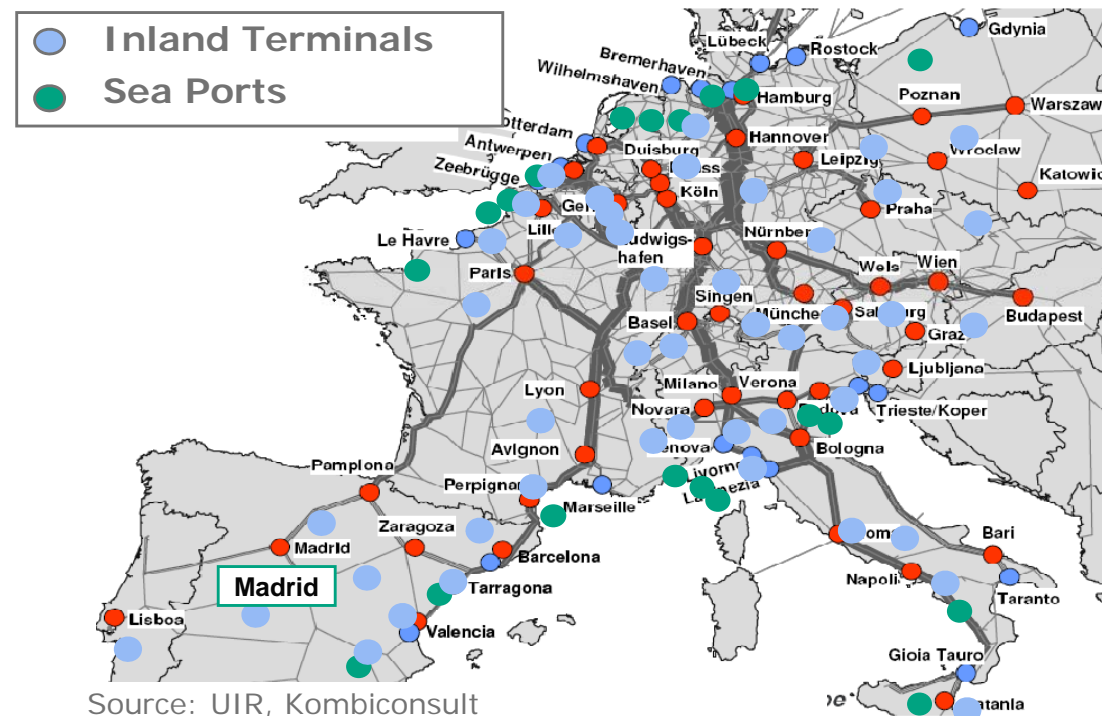
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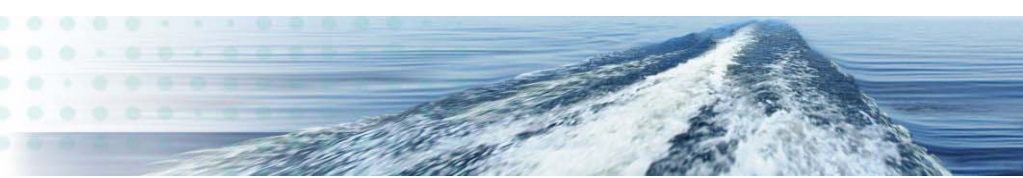
Alternatives to North Range Ports by systematic Hinterland connections

European Intermodal Network

- ▶ Dominant role of Volumes in North/South direction
- ▶ Almost no rail activities of south European ports on rail
- ▶ Except of the Betuwe Line all corridors use existing rail infrastructure

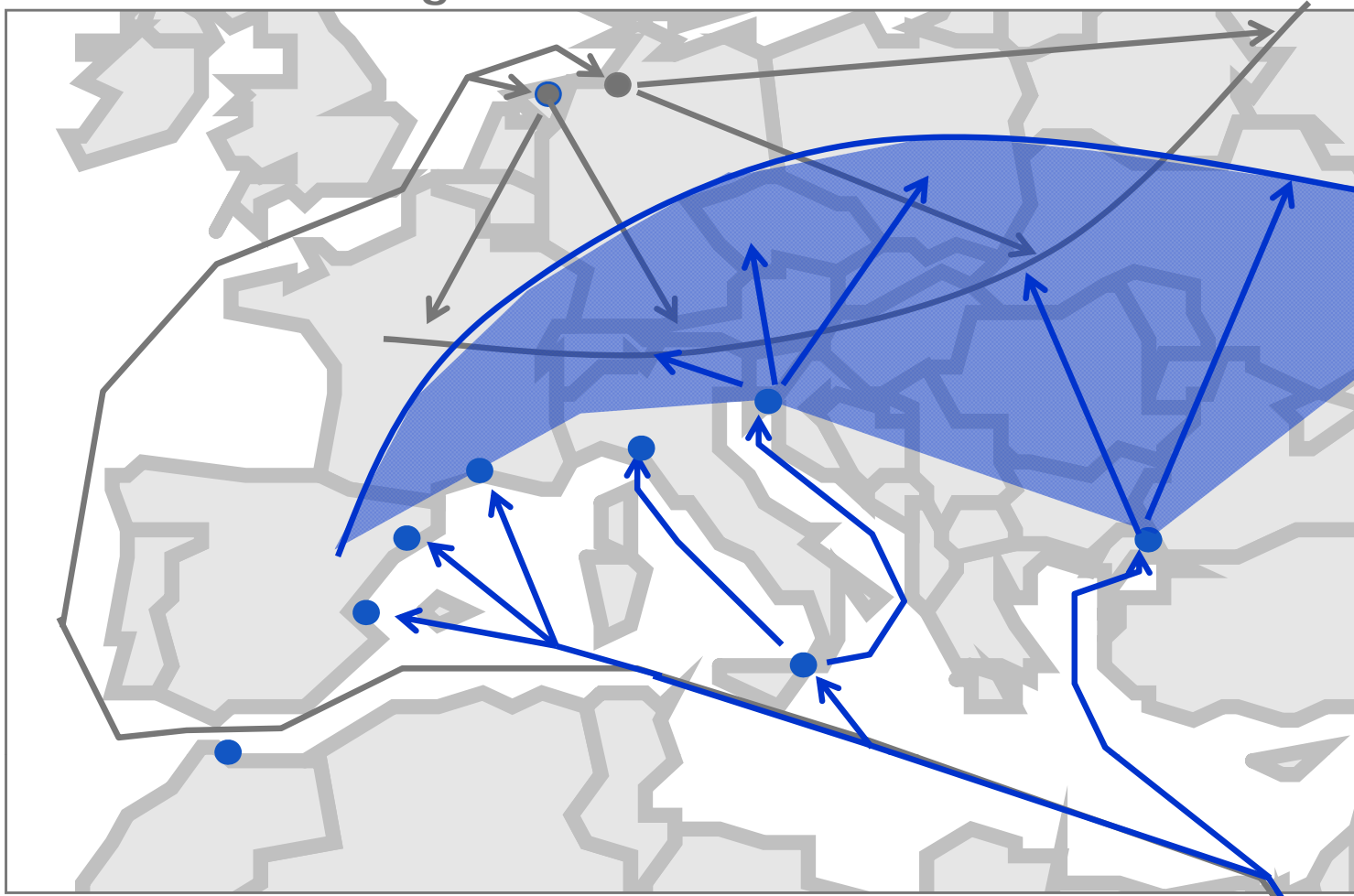


▶ **Efficient commercialization of rail hinterland transportation is the key to attract ports - not the infrastructure**



Alternatives to North Range Ports by systematic Hinterland connections

Hinterland Coverage



The hinterland coverage of the Northern Range Ports is due to historically grown corridors but not because of transport distances

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Conclusions

- ▶ A successful hinterland supply chain is highly linked with modal split of railway transportation.
- ▶ A hinterland railway network will never consist only out of block trains.
 - ▶ It will stay fragmented due to a growing number of final destinations and competition between intermodal operators.
- ▶ To achieve a sustainable modal split on rail the following requirements have to be fulfilled:
 - ▶ Direct integration of railway into port processes,
 - ▶ A qualitative hinterland railway network,
 - ▶ High frequency to main hinterland destinations (at least daily),
 - ▶ Achievement of critical mass for the minimum transport volume on rail,
 - ▶ Smooth rail procedures within the port itself.



Even if potential is big Mediterranean Ports have not yet created enough block train solutions to hinterland.



Prize Winner in Market Consultation Port of Hamburg



Dr. Norbert Bensel
Partner

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Chairman of
Executive Board

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Thank you for your attention!