

The role of rail to support trade growth and port's operations efficiency

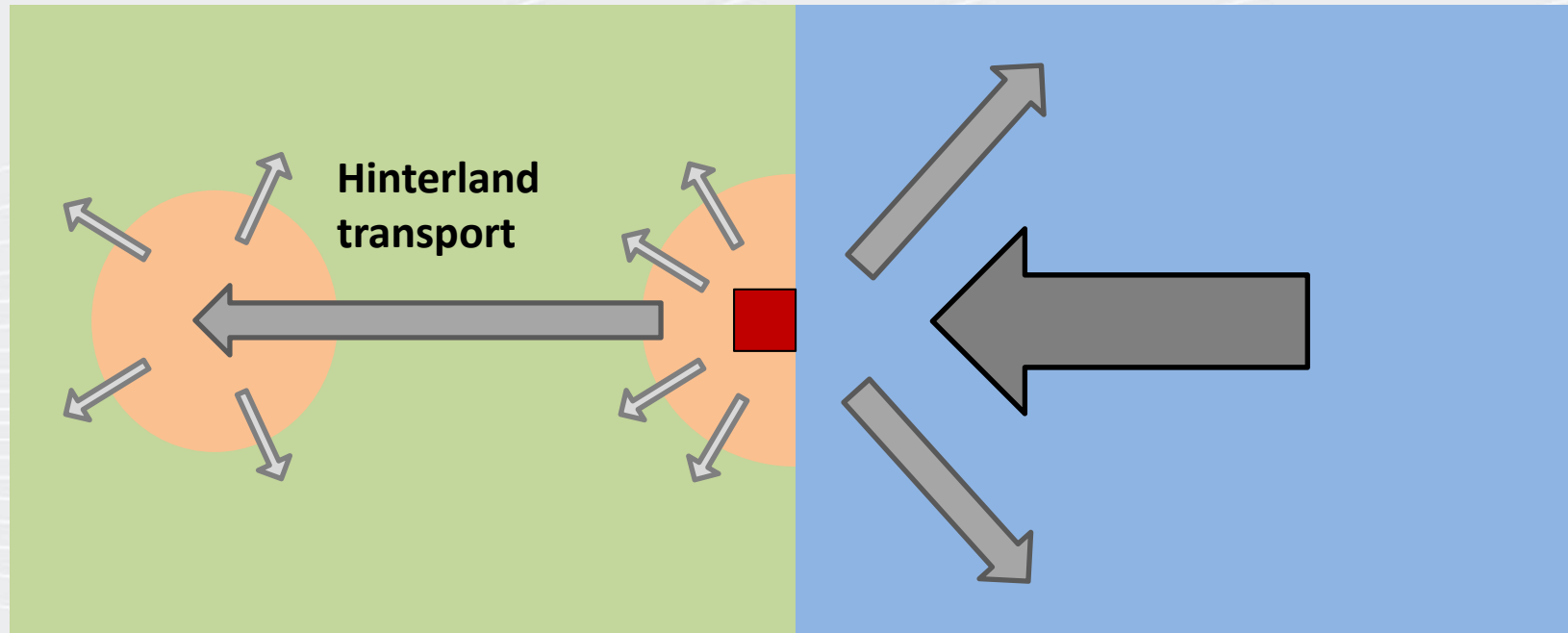


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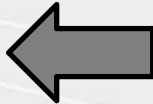
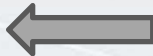

- Role of Ports
- Role of Hinterland
- Role of Rail and Road
- Role of Rail for Ports



Role of Ports



-  Landside
-  Seaside
-  Port
-  Urban area

-  Global transport
-  Regional Distribution
-  Local Distribution

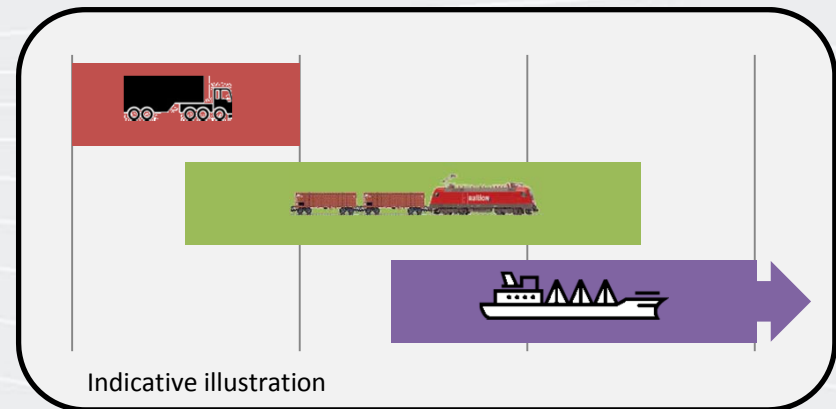
Role of Ports

- Three mega trends influence perspective of the transport growth:
 - Globalization
 - Deregulation
 - Climate change
- Success factors for a port:
 - processing of flows (infrastructure, equipment)
 - transshipment service and handling costs
 - further transport and distribution



Seaport hinterland transport

- Purpose:
 - Extend the reach of the port into the hinterland
 - Increase the overall volumes in the port
- Efficient modes of Transport:
 - Short haul and distribution: **Truck**
 - Medium haul: **Truck or rail**
 - Long haul: **Rail or barge**
- Challenge:
 - Focus on truck transport leads to congestion and creation of bottlenecks



The hinterland transport extends the reach of ports – and depends on the service

- Industry moves to the hinterland due to high land and labor costs in coastal regions
 - Industrial growth in highly developed countries happens in the hinterland
 - Due to this, infrastructure and logistics supply is needed to ensure economic growth
- **The ports grow with their hinterland and the hinterland growth depends on the ports**

Seaport hinterland transport

The continuous growth in seaport hinterland transport requires:



1. Development of transport infrastructure road and rail in conjunction with the seaports
2. Relocation of intermodal transport from road to rail
3. Expansion of Freight Hubs (Centers for cargo handling) and Intermodal Transport Terminals in the hinterland.

What does a regular vessel mean for a port? Challenging volumes to be served...

- Turnover in ports is separated in Transshipment (feeders) and Hinterland (truck, rail, barge)
- One regular service (one call per week) causes a significant number of TEU to handle
- The 14,000 TEU service leads to approx. 2,000 TEU per day

Vessel Size	Handlings per call	TEU	Handlings per year	TEU per year
14,000 TEU	Approx. 6,500	Approx. 10,400	338,000	540,800

This can be managed with a mixture of means of transport...

- A 10,400 TEU call leads to the following number of vehicles and vessels per week

Mode	Modal Split	TEU per transport mean	TEU per Transport Unit	Transport Units
Feeder ship	35 %	3,640	800	Approx. 4.5
Rail	15 %	1,560	200	Approx. 8
Road	50 %	5,200	1.6	Approx. 3,250
<i>Total</i>		<i>10,400</i>		

- One train with a length of 1 km equals approx. 125 trucks
- Without the rail connection, the number of trucks would increase by approx. 1,000

The success of ports is directly linked to the dimensions of the hinterland connections

- Network extent
- Regular rail services
- O/D customs clearance
- Type and distribution of generators



Conclusions

Rail supports growth by

- Extending the reach of a port
- Offering alternative means of land transport
- Increasing the available land transport capacity

Rail supports efficiency by

- Avoiding bottlenecks
- Increasing the port capacity



Thank you