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Industrialization of combined transport from the perspective of a railway undertaking

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Industry Sector Intermodal
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Today’s presentation will point out different aspects of industrializing combined transport, ‘door-to-door’

- How to industrialize the production of CT? What are the benefits?
- What is expected from freight forwarders and shipping lines to support efficiency gains?
- What are the latest trends and best-practices in the inland terminal development?
Within DB Schenker Rail the industry sector Intermodal is the specialist for combined transport

**Industry Sector Intermodal**

- offers a pan-European train network for combined transport in close cooperation with its sales companies
- is Europe’s market leader in combined transport producing 600 national and 900 international trains per week

**Key figures**

*Business year 2010*

- Volume sold | 25 bn tkm
- Freight carried | 47 m t
- Average transport distance | 548 km
- Loading units per year | about 2.8 m
- Trains per week | > 1,500
- Numbers of customers | > 45

**Market segments**

*Based on revenues, business year 2010*

- Maritime | 38%
- Continental | 62%
- Single wagonload trains | 1%
- Block trains | 99%
Combined transport is a growing market and the trend towards containerization boosts growth dynamics

### Overview

- **Growth factors include an increase in containerization** and a change in goods structure: Less bulk goods, more high-value industrial goods.

- **CT still constitutes the strongest growth segment of rail freight** (compare total rail freight 3.7% p.a. until 2015) and the major driver of modal shift (market share Intermodal Germany: 31.5%).

- After crisis **continental transports** have **higher growth rates** than maritime transports.

- Access to **terminal capacity** is a **critical success factor**, especially in relevant markets and corridors with capacity bottlenecks.

- **CT faces highest intra- and intermodal competition intensity**.

### European combined traffic (rail/road) market in mln tons

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Estimated</th>
<th>Forecast</th>
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<td>206</td>
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<td>2018</td>
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Tons market 2008 and 2009 estimated by UIC.
Market requirements and dynamic growth rates demand to industrialize combined transports

Today's transport volumes
Schematic

Daily

Weekly

Challenges

- Combined transport requires low cost structures to be economic / high productivity on production side
- At the same time the transports are demanded to fulfill high quality standards
- Dynamic growth calls for more efficient use of limited capacities

Approach

Industrializing combined transports
Synchronized and tightened schedules improve the utilization of resources and provide several departures per day.

**Advantages**

- **Continuous shipping** in the terminals
- **High security of supply** for shippers and forwarders
- **Resource optimizing** by quick exchange of locomotives
- **Smoothing day specific traffic load curves** of shipping resources
- **Expansion** within existing system is possible
To achieve efficiency gains from industrialization all involved players have to take action

Requirements

- 24/7 operation of terminals
- Harmonized train paths during the day for freight and passenger transport
- Aligned service hours at the loading ramp of shippers
- Expansion of time frame for pre- and on-carriage of forwarders
- Early notice of planned transport volumes / Information of planned transport volumes at an early stage
- Smoothed weekly traffic load to ensure a constant transport flow towards / from hinterland
For the inland terminals and related services some important trends have to be considered

**Optimized sets of wagons**
Using 40' and 80' wagons for 20' and 40' containers in maritime sector as well as a mixture of pocket and platform wagons for continental traffics

**Additional services**
Link of transshipment with additional services, e.g. trucking, just-in-time delivery, warehousing, order picking and especially long-term and intermediate stabling and storage to relieve capacities at seaports

**Mobile and preventive maintenance**
Expansion of mobile and preventive maintenance leads to higher wagon availability

**Cross positioning**
Unpaired container flows cause continuous need of repositioning of containers between import and export locations

**Trends for inland terminals and services**
DB Intermodal Services is extending its wide range of container-related services at a growing number of industrial sites.

Current approaches:

- Significant increase in terminal capacity
- Buffering of peak volumes and with it relieving of seaports
- Extension and new construction of storage capacity with dedicated areas for shipping companies
- Further integration of services, i.e. storage, repair, transshipment, trucking and repositioning of containers
- Optimized repair and repositioning for faster availability of containers

Locations of DB Intermodal Services

Germany

- Hamburg
- Wolfsburg
- Braunschweig
- Frankfurt/Oder
- Wustermark
- Großbeeren
- Frankfurt/Main
- Mainz
- Mannheim
- Kornwestheim
- Nürnberg
- Regensburg
- Leipzig
- Kassel
- Dresden
- Pfullendorf

Administrative location
Load depot
Empty and loaded container depot
Full onsite logistics
Transshipment station
Thank you very much for your attention.