The Role of Ports in Intermodal Transport Chains

Susanne Milberg, HPC Hamburg Port Consulting GmbH

© HPC Hamburg Port Consulting GmbH

Agenda

1. Ports in the Logistics Chain
2. Port of Hamburg
3. Vertical Integration as Market Strategy
4. Hinterland Transport Network
5. Inland Railway Hub Terminals
6. Benefits from Intermodal Hinterland Transport
7. Environmental Aspects

© HPC Hamburg Port Consulting GmbH

Port: Gateway Function in Logistics Chain

© HPC Hamburg Port Consulting GmbH

Port of Hamburg

Port of Hamburg:
Existing Terminals & Extension Areas

HHLA in the Port of Hamburg

2010: 5.8 Mill. TEU (total Hamburg : 7.9 Mill. TEU)

Hamburg Hinterland Population

Transit Times:

HAMBURG GATEWAY TO EUROPE

Example: Transport Chain Far East to Europe

Source: HHLA

© HPC Hamburg Port Consulting GmbH

Modal Split in the Port of Hamburg

© HPC Hamburg Port Consulting GmbH

Feeder Departures from Hamburg

(2010)

Hub Function of Hamburg Port

Source: HHLA

- Hamburg's geographic advantage regained importance in volume allocation
- Strong recovery of feeder traffic to/from Baltic Sea
- Rail transport to/from the hinterland partially above pre-crisis levels
- Double digit growth of long-haul overseas traffic

© HPC Hamburg Port Consulting GmbH

Market Strategy Vertical Integration

HHLA Market strategy focussing on :

Market Strategy Vertical Integration

Main Characteristics of Market Strategy:

High service quality at container terminal

- Achieve high **productivities** in quay operations
- Significantly improve **communication** flow with customers
- Increase **complementary and value-added services** offerings

High-performance hinterland transportation system

- Efficient **interfaces** rail/truck
- Provision of **transportation services** by intermodal subsidiary companies
  - Block trains
  - Inland terminals
  - Trucking services
- Optimized **information flow**

HHLA Hinterland Transport Network

Together with strategic partners

HHLA operates railway companies

- **Transfracht**
- **Metrans**
- **Polzug**

Truck transport services by CTD (100% HHLA owned)

Source: HHLA

Example for Hinterland Transport Chain

From Hamburg to Vienna

Route taken by Deichmann shoes from the Port of Hamburg to the retail store in Vienna.

Source: HHLA

Europe's largest shoe retailer collaborating with HHLA subsidiary railway company (Metrans) in the optimisation of its transport chain from the Port of Hamburg to their retail stores, e.g. in Vienna

- Main transport distance by railway
- "Last mile" by truck

Change in logistics concept for hinterland transport:

2000: 70% of all shoes imported via Antwerp hinterland distribution mainly by truck

2010: 75% via Hamburg / Bremerhaven intermodal hinterland transport (railway / truck)

© HPC Hamburg Port Consulting GmbH

Development of High Performance Terminal Interfaces Enable Efficient Hinterland Transport

Rail terminal development

- Final solution: **State-of-the-art on-dock rail facility** to serve full block trains by (partly) integrating adjacent shunting yard
- Interim solution: Container loading on **two existing terminal tracks**, usage of adjacent shunting yard

Truck gate improvement

- **Sufficient capacity**, e.g. 4 truck lanes
- Introduction of **intelligent truck gate solutions**. Examples:
  - Optical character recognition (OCR)
  - Pre-gate procedures (e.g. from off-dock terminal)
  - Video monitoring

Development of Inland Terminals as Hubs for Hinterland Traffic

Examples (Metrans operated)

Terminal Prague

Terminal Dunajska-Streda

Approach

- Establishment of a comprehensive and high-performing **terminal network in the hinterland**
- Objective: Transfer of **high service quality** standards from seaports to the hinterland
- HHLA terminal development currently **in progress**:
  - Germany: via Joint Venture with Eurogate
  - Poland: construction in progress, e.g., in Posnan and Katowice
  - Further locations being examined
- **Potential additional terminal locations in the hinterland** (to be decided)

Inland Railway Hub Terminal System

- Increasing rail transport volumes enable port companies to establish inland railway hub terminal (e.g. Polzug Poznan Terminal)
- Cooperation of port companies possible (e.g. Joint Venture HHLA & Eurogate in Germany)
- Additional market potential in Central & Eastern Europe and Russia

© HPC Hamburg Port Consulting GmbH

Benefits from Intermodal Hinterland Transport

Benefits

- Lower transport cost
- Less road congestion
- Widening of customer base
- Increase of port's hinterland coverage
- Improve reliability of transport
- Environmental friendly railway transport

© HPC Hamburg Port Consulting GmbH

Environmental Aspect of Highly Integrated Logistics Chain

Management Consulting for the Transport Sector

HPC Hamburg Port Consulting GmbH is a specialised consulting company, offering tailored solutions in the fields of port and transport logistics.

Our Focus:

- Ports
  - Container Terminals
  - Bulk Terminals
  - Cruise Terminals
- Logistics Facilities
  - Rail Terminals
  - Inland Ports

Our Clients:

- Private terminal operators, port authorities and public institutions
- Logistics Companies, Banks and private investors
- International organisations such as World Bank, IDB etc.

© HPC Hamburg Port Consulting GmbH

HPC HAMBURG PORT CONSULTING GMBH

Contact Address:

HPC Hamburg Port Consulting GmbH
Susanne Milberg
Partner, Business Development and Strategy
Container-Terminal Altenwerder
Am Ballinkai 1
21129 Hamburg
Germany

Phone: +49 40 74008 144
Fax: +49 40 74008 133
s.milberg@hpc-hamburg.de

© HPC Hamburg Port Consulting GmbH