New Business Designs for Inland-Terminals

Alexander Stern, DUSS
DUSS - 24 production locations in Germany

Figures 2010

- approx. 480 employees
- total revenue > 50 mio. EUR
- handlings > 2 mio. LE
- 22 terminals
- 2 RoLa locations (iron highways)
- 50 rail mounted gantry cranes
- 10 reachstackers
The current age of the terminals varies between 10 and 20 years, the terminal design needs a stronger focus on maritime transport.

### Aging structure of DUSS terminals

- **quantity terminals**
  - 5
- **age terminal**
  - 10 years
  - 20 years

### Standardized terminal layout

- **4 transhipment tracks**
- **3 storage lanes**
- **NETZE DUSS-Terminal**
- **DB NETZE DUSS-Terminal**
Reason: the intermodal market faces increasing dynamic growth of maritime traffic with its special requirements

Future trends
- significant growth of maritime intermodal traffic expected
- trend to high volume TEU
- increase of modal split in hinterland transports by rail
- rising of production systems through hubs by shuttle trains with a maximum of capacity utilization

Requirements for infrastructure + terminal operator
- increase in capacity in hinterland transports
- facilities for maritime intermodal segment incl. hub function
- optimal site access regarding rail and land transport
- high level handling and depot capacities
- short- and mid-term storage opportunities
- value added services around loading units (containers)
- non-discriminating terminal management
- integrated IT environment within the value-added chain

Growth of container handlings in million TEU (Hamburg, Bremerhaven, ARA)

- 2005: 25
- 2010: 30
- 2025: > 75

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Terminal infrastructure in the hinterland should focus more on maritime requirements

Principal criteria of an integrated terminal + depot model

- Terminals in the centres of commerce or near to industrial sites with well-performing rail and road connections
- High storage capacity
- After transhipment: handing over the units in an integrated depot module
- Size of transhipment modules: 720 m usable length for cranes, 5 tracks, 6 storage lanes
- Usual train length 750 m, length for crane min. 700 m
- Electrified tracks to the transhipment area
- External storage areas for non-stackable intermodal units
- Services (repair, maintenance), long-term storage
- Non-discriminating services
- Customer-oriented IT-systems
Capacity is still sufficiently available for seaport hinterland transport, conditions for investment subsidies should be revised

- Public funding of the terminal infrastructure enable market-driven services and competitive pricing.
- Public funding (federal railway infrastructure programmes, funding guidelines for third parties) are strictly limited to eligible infrastructure which serve strictly the transhipment.
- Between 20 - 30% of the terminal costs are not eligible and will affect the pricing of the terminal operator.
- For the market demands - especially in the maritime transport today - there are still no adequate funding opportunities.

DUSS has been in contact for many years with the federal government and EBA with the goal of synchronization of market requirements and attention to the financing of terminal infrastructure.

X = no subsidies according to funding conditions
Hub systems in Duisburg and Lehrte (pending) collect – transfer – distribute by block train overnight

- Trains with loads to different destinations arrive
- Loading units transferred between trains (hub)
- Block trains with loads to the same destination depart

Transshipment terminals/port terminals
Road/rail transshipment
- Loading units transferred between trains
- Loading units from road/rail transshipment loaded or stored

MegaHub Lehrte, pending 2012
Hub Duisburg under construction
DUSS has initiated at least 8 expansion projects e.g. to meet the expectations of seaport hinterland transports

Regensburg-East expansion – elongation of crane runway
Start of construction in autumn 2010

Hamburg expansion – Billwerder 3rd module
To be completed Q4 2011

Cologne-Eifeltor expansion – 3rd module
To be completed in 2012

Leipzig-Wahren: expansion 2nd module
To be completed 2014

Munich-Riem expansion – 3rd module
To be completed in time for the 2011/12 timetable change

Duisburg intermodal hub
Expansion in several phases, phase 1 to be completed in 2011/2012