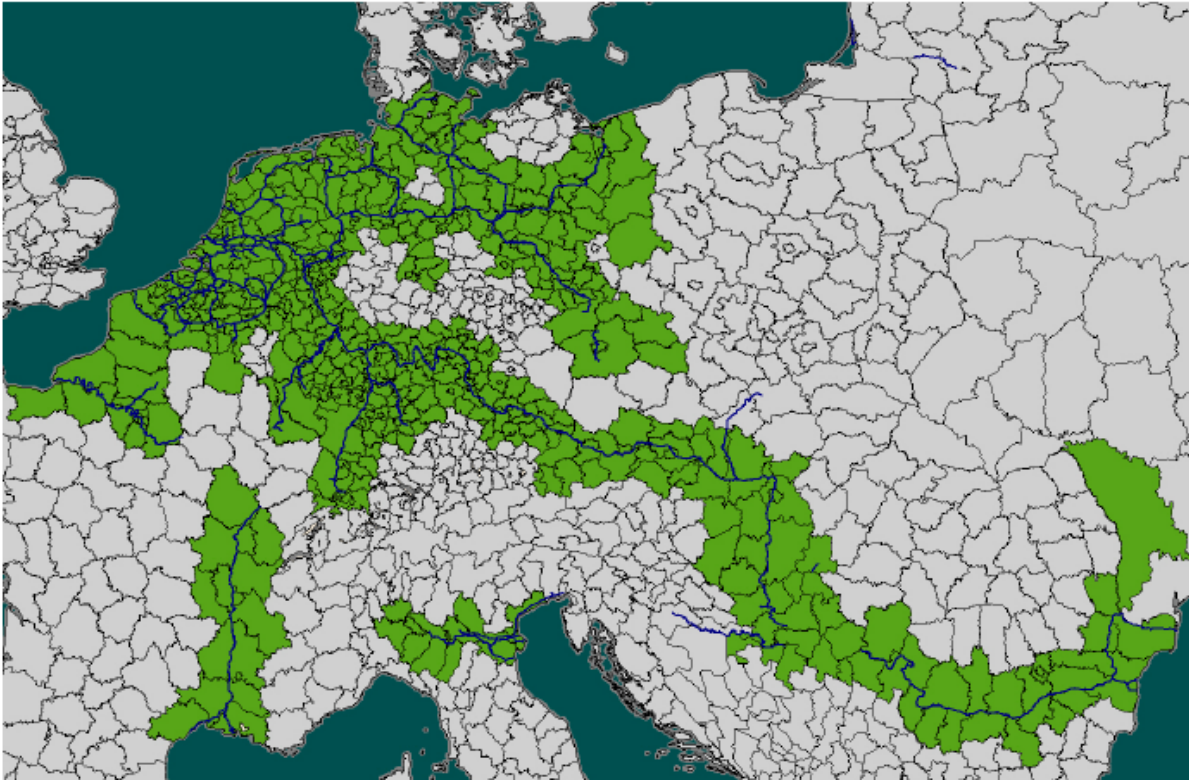


How to attract continental cargo in North-West Europe

WP1 2016-02-05

Macro analysis potential

Overview scope market potential continental container market (NUTS-3 regions):



Macro analysis potential

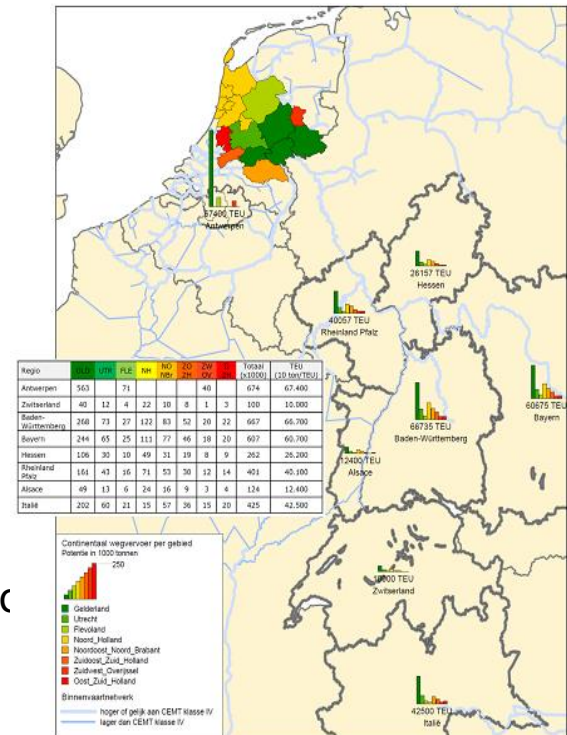
Overview scope market potential continental container market (NUTS-3 regions):

Regions / corridors	Road continental flows (in tonnes)
Antwerp (BE) / Rotterdam (NL) – Middle Danube (HU)	70,840,054
Antwerp (BE) / Rotterdam (NL) – Czech R. (including freight transported between these regions) ⁴	31,599,014
Koblenz (DE) / Rotterdam (NL) – Moselle (FR/LU/DE)	27,053,125
Antwerp (BE) / Rotterdam (NL) – Poland	12,318,482
Rhône – Saône Bassin (FR)	16,049,483
Antwerp (BE) / Rotterdam (NL) – Basel (CH) (including freight transported between these regions) ⁵	14,645,963
Antwerp (BE) / Rotterdam (NL) – Neckar	13,102,238
North-West France (FR) – Ruhr Area (DE)	25,883,996
Ruhr Area (DE) – Bremen (DE)	6,213,355
Antwerp (BE) – Rotterdam (NL) – Northern Netherlands (NL)	5,506,347
Middle Danube (HU) – Lower Danube (RO)	2,844,048
Ruhr Area (DE) – Northern Netherlands (NL)	2,722,914
Ruhr Area (DE) – Hamburg (DE)	2,086,098
Po River (IT)	2,052,215
Seine River Bassin (FR)	1,671,564

the total potential would be 67,587,370 tonnes

Determining opportunities

- Opportunities on the continental market
- Macro analysis
- Import/Export streams
- Maritime containers – road transport
- Adjustment of assessment of potential for continental cc
- Case studies: ELAN + Comparison existing modal shift



Comparison modal shift studies

Success factors for shifting cargo:

- *Offering strategic and immediate advantages* to the shipper within the intermodal shift.
- *Efficiency in the operational flows*: enhancing the operational flow always offers a direct advantage on at least one of the determining factors.
- *Handling costs*: the “vertical transport” is the preponderant element in the transport cost and the key to an efficient transport operation.
- *Cooperation*: both between the shippers and between the logistic operators. It offers the opportunity for bundling transport streams and to enhance the operational flows.

Comparison modal shift studies

Bottlenecks identified preventing the development of modal shift towards IWT for continental intermodal transport:

- Lack of fitting and competitive *intermodal transport unit*. The 45' pallet wide high cube short sea shipping container seems the most appropriate intermodal unit for continental container transport.
- *Handling operations (in cost and time)*, especially where there are no direct waterway connections to major production plants/distribution centres.
- *Investments* in superstructure and infrastructure are often required though making use of existing services sometimes offers an answer.

Business models

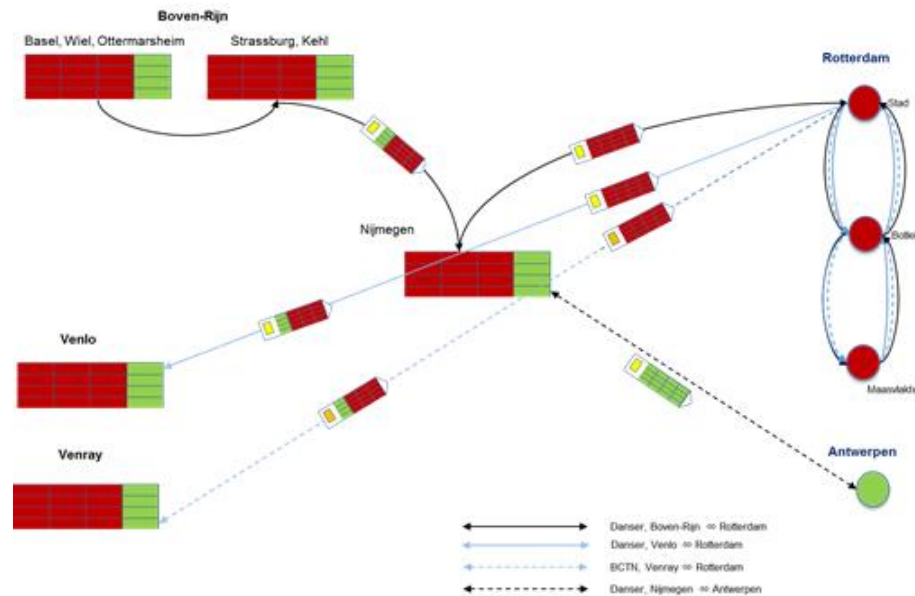
- **Shipping line perspective:** transition from port-to-port services towards door-to-door services
- **Deep-sea-terminal perspective:** Control in hinterland operations
- **Hinterland operator perspective:** Efficient hinterland services following sufficient demand
- **Service area perspective:** Terminal operator focussed on regional accessibility combined with long term commitment of shipper for terminal/barge services to sea ports
- **Neutral service provider perspective:** Supply chain in control of logistics services providers/ freight forwarders who have partnerships/contractual agreements with specific inland terminals

Business models

- Ownership structure
- Access to shippers/customers
- Services provided
- Possible (cooperative) partnerships

Operational models

- Network and connections
- Pilot BCTN / Danser in Hub, Hop en Consolidation model



Market transfer roadmap

- **Macro analysis potential**
- **Opportunities on the continental market**
- **Transport equipment = technical analysis / actors**
- **Recommendations for solving bottlenecks**
- **Analysis commercial and operational relationships**
- **Outline of market organisation and structure for continental transport chains**
- **Inland waterways market transfer roadmap**