Dry Port case study in Region Zealand

REGION SJÆLLAND

TransBaltic
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Project part-financed by the European Union (European Regional Development Fund)

Baltic Sea Region Programme 2007–2013

TransBaltic

Towards an integrated transport system in the Baltic Sea Region

Objective of the case study

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- The potential scope for a dry port terminal for long-distance container transport in Höje Taastrup connected to major national and European ports
  - Actual and potential transport volumes
  - Current and potential customers
  - Key stakeholders in development of dry port concept
  - Conducted by COWI

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Main container ports in Denmark

*) ¾ of total goes to and from ports in D, B and NL
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Maritime container freight 1.000 tons (2010)	Import	Eksport	I alt
Denmark, all ports	**2.659**	**2.579**	**5.237**
Port of Aarhus	1.405	1.591	2.996*
Port of Copenhagen (CMP)	733	437	1.169**
Port of Fredericia	266	279	545
Port of Aalborg	145	138	283
Port of Esbjerg	109	135	244

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Höje Taastrup intermodal terminal
- organisation

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❑ Until 2011:

- The terminal was owned by DSB (State-owned operator of passenger trains)
- The terminal was operated by DB Schenker Rail Scandinavia (Railion Denmark)

❑ By January 2011:

- Owned by Rail Net Denmark (Banedanmark – the national Infrastructure Manager)
- Operated by DB Schenker Rail Scandinavia – Tender of operation renewed in 2020

❑ Operation subject to National Transport Authority (NTA) regulations:

- It is compulsory for the operator to provide open and indiscriminate access to the terminal
- The tariffs of terminal services are regulated by the NTA and must be published

Höje Taastrup intermodal terminal
- capacity and facilities

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Handling volume in 2011: 75.000 TEU

Number of handling tracks: 6

Length of loading tracks: 3.110 meters

Storage area in total (approx.): 38.000 m2

Storage capacity–container depot (approx.): 3.400 TEU

Handling equipment: 1 portal crane & 6 reachstackers

Estimated capacity: 100.000 – 120.000 TEU/year

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Höje Taastrup intermodal terminal
- services and trains

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Services today:

- ❑ Automated self-gate system
- ❑ Authorised customs depot
- ❑ Container depot with reefer plugs
- ❑ Container repair and maintenance services

Shuttle-trains today (approx. 50 trains/week):

- › APM-Terminal, Port of Aarhus: 4-6 trains/week (containers)
- › Carlsberg Breweries, Fredericia: 20 trains/week (trailers)
- › Hupac, Verona/Milan – Malmö: 12 trains/week (trailers, swaps)
- › Danske Fragtmænd, Taulov: 12 trains/week (trailers)

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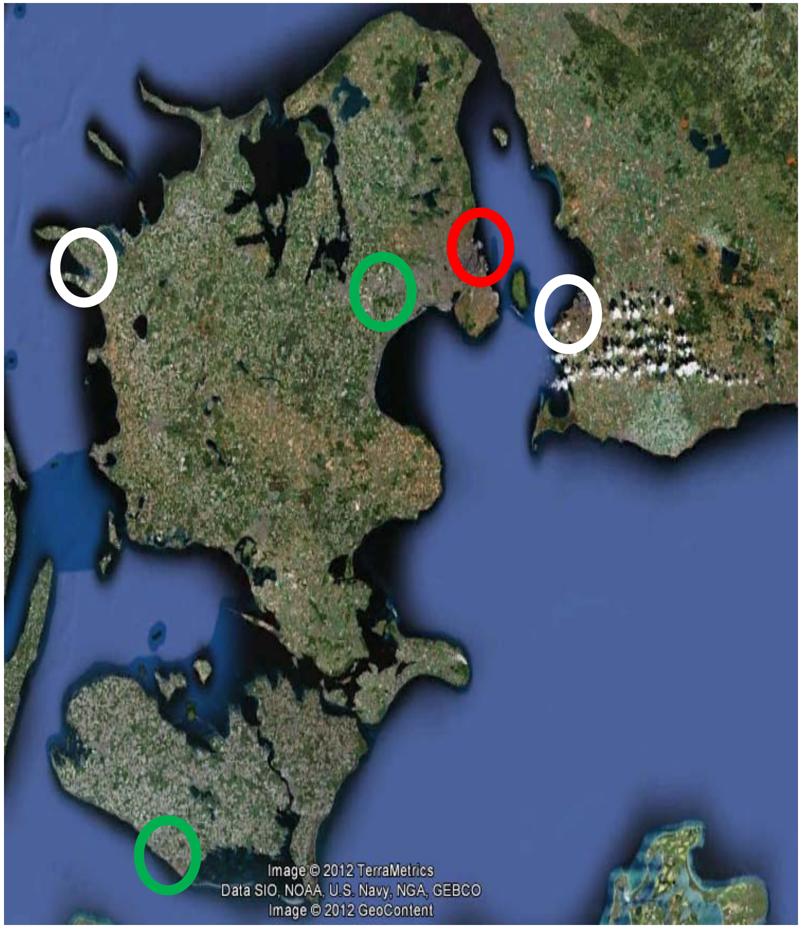
Container gateways for Zealand



Importance	Zealand Gateways
Main gateways	• CMP – Copenhagen
Less used gateways	• Höje Taastrup-terminal • Rödby ferry port
Gateways **not** used today	• CMP – Malmo • The port of Kalundborg

Competitive positions of main gateways in Zealand

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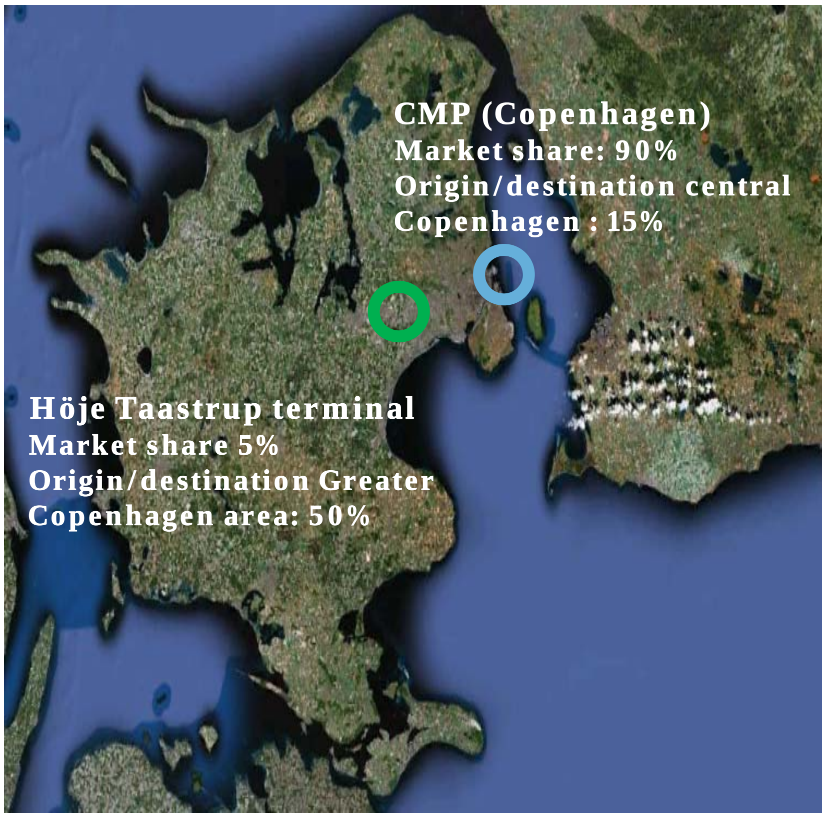

- CMP handles nearly all overseas container shipments to/from Zealand today
- CMP (Copenhagen) is easy accessed by high capacity feeder ships
  - Capacity of feeder ships: Approx. 600 TEU
  - Capacity of a 700 m train: Approx. 100 TEU
- CMP offers frequent connections by feeder ships to the large overseas ports
- The Höje Taastrup-terminal serve as gateway only for overseas containers via the port of Aarhus (APM Terminals)

Copenhagen Malmoe Port (CMP)
- pros and cons of the port

Advantages:

- Frequent calls by feeder ships (Maersk, CMA-CGM, MSC, Unifeeder etc.)
- High capacity
- Offer relevant services
- Located near transport and logistics service providers

Disadvantages:

- No railway connections
- Surrounded by densely populated urban areas
- Many end-customers have moved to the other side of the city-ring
- Planned removal of the terminal due to harbour development

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Höje Taastrup Terminal
- pros and cons of the terminal

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Advantages:

- Optimal location near the industries on Zealand
- Equipped and designed for dry port-purposes
- Good railway connections
- Located near transport and logistics service providers (transport cluster)

Disadvantages:

- Capacity may be limited in the long term

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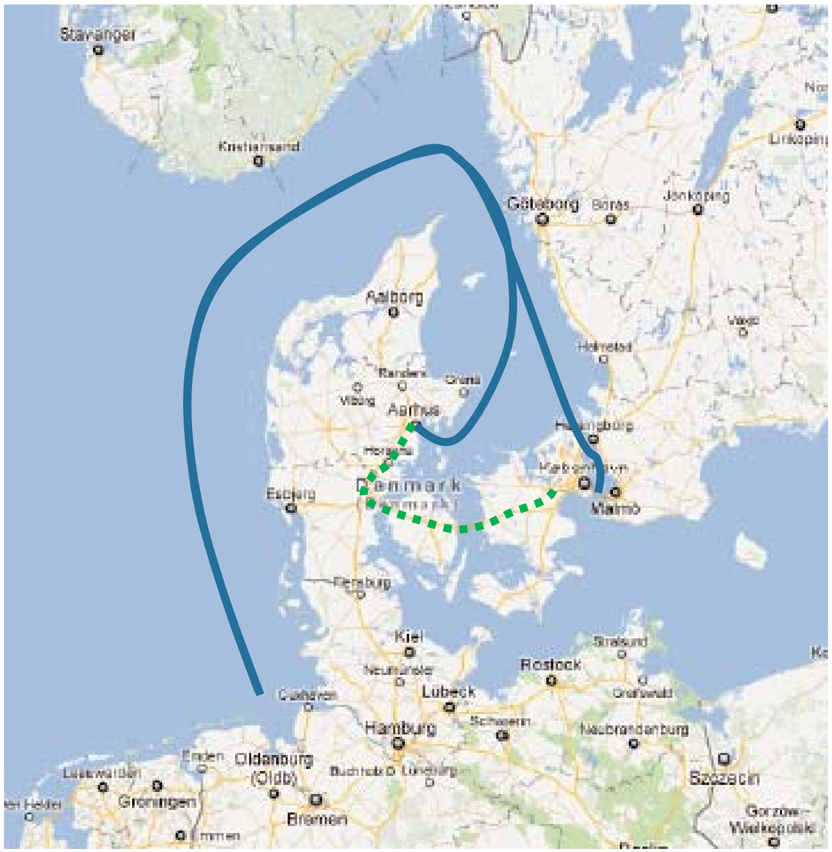
Dry port operations to Höje Taastrup
- APM Terminals in Port of Aarhus



- Maersk Line decided in 2009 to redirect feeder shipment of overseas containers to the port of Aarhus
- Supply of Zealand was instead made by shuttle-trains to the Höje Taastrup-terminal
- In 2011 Maersk decided to re-launch feeder traffic to/from CMP in Copenhagen
- Consequently the volumes dropped on the shuttle-trains
- Instead of planned 5 departures weekly only 2-3 are operated today – and the loads are mixed containers and trailers (for Danske Fragtmænd)
- Competition on the Great Belt from sea routes has moved the trailer traffic back to road again

Conclusions 1/3

- A strong competition prevails between CMP (Copenhagen) and the dry port in Höje Taastrup
  - The two terminals compete on the same market
  - Access to seaports (CMP, Copenhagen) is too short allowing feederships to get very close to the point of origin/destination
  - Feederships drive railways out of business due to lower prices
  - The market for overseas fright to/from Zealand is relatively limited
- The role and development of the Höje Taastrup-terminal as dry port is determined by the competitiveness of railway shuttles to the large seaports

Conclusions 2/3

- The importers and exporters on Zealand generally welcome the dry port in Höje Taastrup as it would provide a second alternative to the existing services:
  - Competition to the "monopolist" CMP is expected to improve service levels and reduce prices from gateway to/from importer/exporters storage ("the last mile")
  - The cargo would get closer to the importers and exporters storages and depots
  - Pre- and on-carriage would become cheaper
  - Frequent shuttle-trains to/from the continental ports might reduce the risk of delays

- But the terms and conditions must at least be comparable to what is experienced today

Conclusions 3/3

- The basic physical conditions for the Höje Taastrup-terminal as a dry port are already available - and the market requirements are adequately matched
- Due to the "small island-location" a “dry port concept” at Höje Taastrup is subject to strong competition from the feeder services by ship
- The fixed Fehmarn Belt link will reduce the railway corridor to the port of Hamburg by approx. 140 km – in it self this is probably not enough to challenge the feeder services by ship due to:
  - Poor railway logistics in the port of Hamburg
  - Low priority of trains bound for Denmark
  - Clients are not willing to pay for the improved service (reduced transport time)

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Future vision for a dry port concept in Höje Taastrup

- ❑ Vision: Regular shuttle-trains to several continental ports – Is it realistic?
- ❑ Possible changes in framework conditions:
  - Rising costs of sea transport due to increasing fuel prices and environmental requirements
  - CMP concentrate container traffics in Malmoe
  - Reduced toll for freight trains on the fixed Fehmarn Belt link