# Sustainable goods transport in the Fehmarn-Øresund corridor

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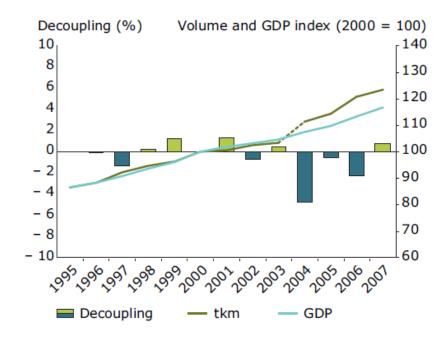






### The challenge

- EU White Paper 2001: Decoupling transport from the economy
- The climate challenge reduced GHG emissions
  - DK Gvt. 40% by 2020
  - Fossil free by 2050
- How can we develop a freight transport system that can maintain/increase mobility of goods with limited GHG emissions?

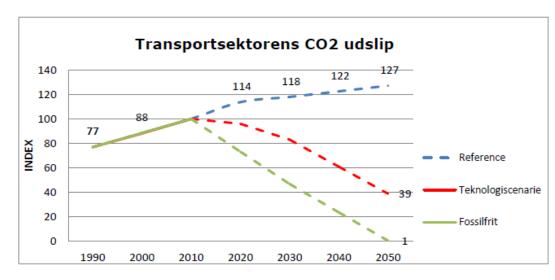


Source: EEA (2010)

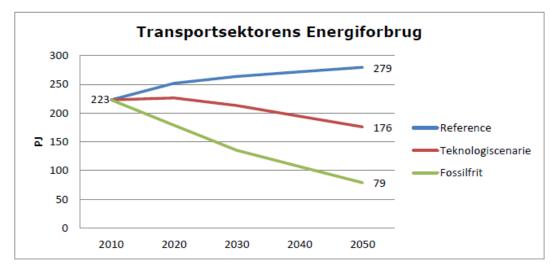
**TERM 2009** 

#### Fossil free transport system in DK 2050

- Limited biomass resources
  - HGV road transport
  - Aviation
  - Maritime
- Massive transfer from road to rail
  - However limited potential for national freight transport
- Increase in load factors



Figur 1 Transportsektorens CO2 udslip index, 2010-2050 i 3 scenarier



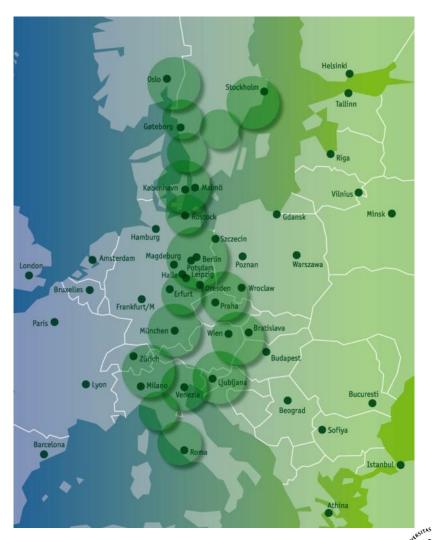
Figur 2 Energiforbrug (tank to wheel) for danskernes transport i de tre scenarier.

#### What can we do now?

- 'We' = actors from
  - Business
  - Regional governments
  - Knowledge institutions
- Green corridor strategy
  - Not a part of European strategies
  - A pragmatic approach
  - Initiatives that can help governments in their climate strategies
- Fehmarn Belt Link a window of opportunity

#### **SCANDRIA Green Corridor Strategy**

- Scandinavian-Adriatic Corridor
- SCANDRIA project
  - Berlin/Brandenburg
  - Mecklenburg-Vorpommern
  - Region Sealand
  - Region Scania
  - Trafikverket
  - Roskilde University
  - and others
- Vision
  - A new north-south transport corridor in Europe
  - A shorter route Asia-Suez-Adriatic Sea-Northern Europe





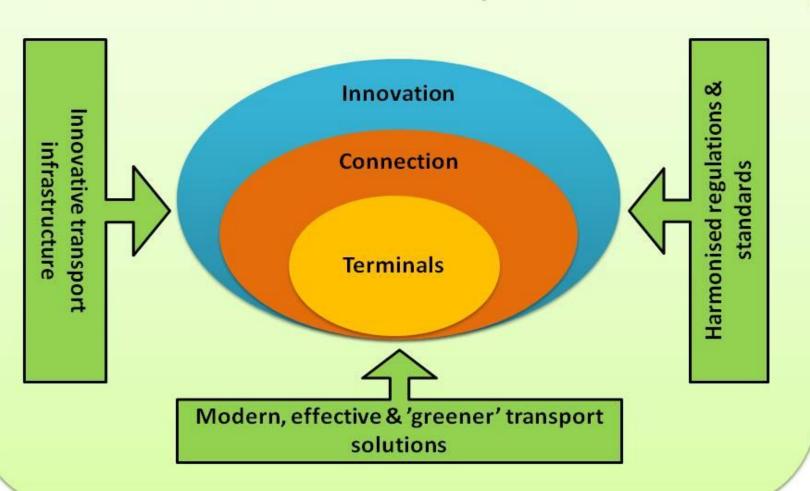




#### Green corridor vision

- Modern, efficient and 'greener' transport solutions that highlight co-modality for terminals and connections.
- Harmonised regulations and standards for terminals and connections that support interoperable and reliable transport solutions but do not prevent innovation.
- Innovative transport infrastructure that encourages economically attractive sustainable logistic solutions (green logistics).

#### Scandria Green Transport Corridor



### Strategy – corridor of connections

- A network of block trains with efficient links to east-west corridors
  - The block trains will outperform other land transport modes economically end environmentally, due to
    - High capacity utilization (long trains)
    - Fair pricing for all freigh transport
    - High environmental standard of the rail system

#### Strategy – corridor of terminals

- A network of time and cost efficient terminals (ports and road-rail)
  - open access
  - competitive
  - high technological standard
  - high level of standardization

#### Strategy – corridor of innovations

- ITS solutions for advanced management of transport and consolidating freight flows
  - 'paper free' freight transport
  - electronic travel planner for freight
- An infrastructure for renewable energy supply for trucks along the SCANDRIA corridor
  - beginning with biogas later on other energy sources and carriers

#### Action plan 1

- Setting up pilot block train schemes with EU-support
  - High reliability backed up by truck transport
- Coordination of standards for rail between national authorities for new and rebuild infrastructure
  - Length of train
  - Axle load
  - Profile
  - **—** ...
- Coordination of train management across the countries

### Action plan 2

- Establishing a network of open access terminals in the corridor with certified levels of operations
  - Initiator for ITS projects to
    - Reduce bureaucratic load for transport buyers
    - Establish measures for consolidating freight streams,
       i.e. electronic freight transport planner

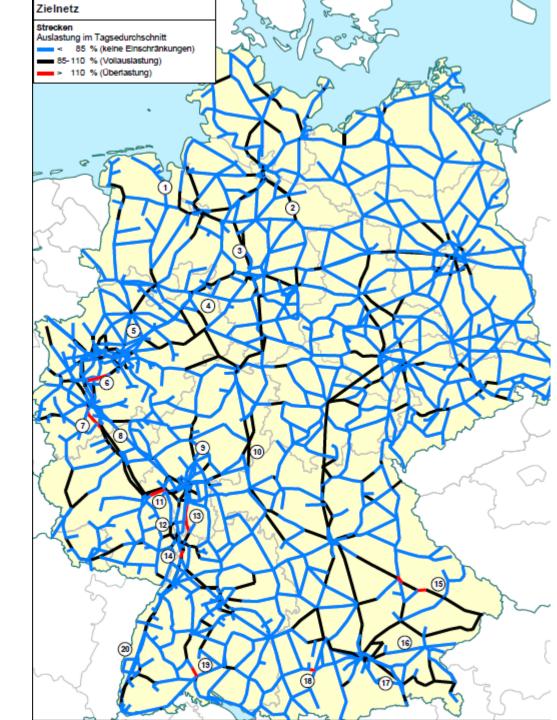
### Action plan 3

- Establishing an infrastructure of liquified biogas stations from Göteborg/Stockholm to Berlin
  - using liquified natural gas as a transition technology
  - bringing together companies, authorities and knowledge institutions cross-border to
    - propose common standards
    - initiate collaboration
    - initiate business opportunities

## Fehmarn Belt Link – a window of opportunity

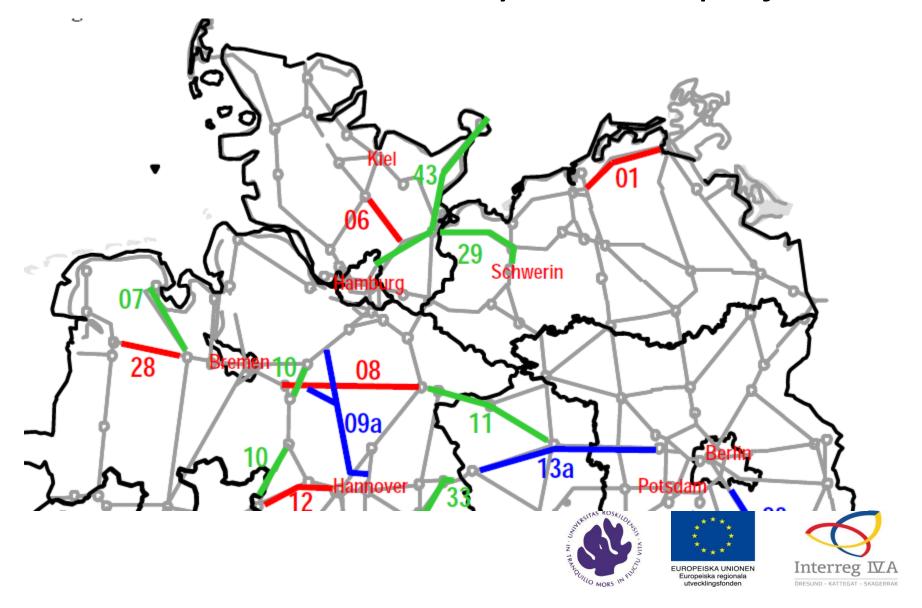
- New business collaboration opportunities
- A green corridor actually being able to exploit the opportunities of the fixed link despite rising oil prices and/or climate taxes
- High standard for Fehmarn Belt rail link
  - Minimum velocity of 120 kmh on fixed connection
  - Speeding up double tracking Puttgarden-Lübeck
  - Infrastructure improvement the 'Bad Kleinen' curve
  - Transnational rail operations management

Bottlenecks on rail 2025 (after 29 improvements)





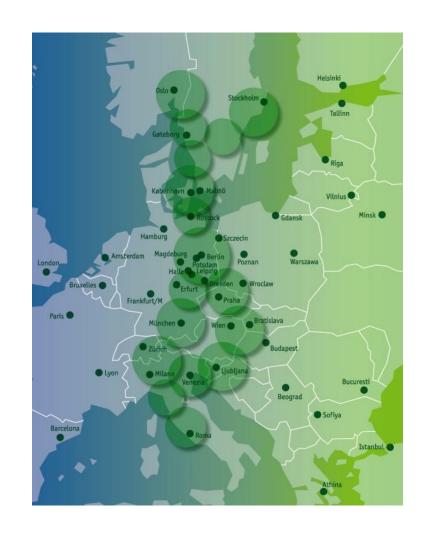
#### Result of 2010 B/C-analysis of rail projects





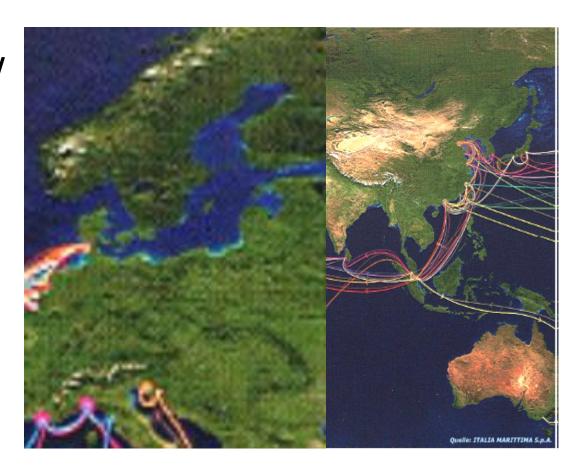
## The Scandinavian-Adriatic Corridor (SCANDRIA Corridor)

- The entire corridor involves 115 million inhabitants (approx. 25% of all EU citizens) in 11 states and 7 capitals.
- Highest density of capital regions in Europe covering 15 ports, about 300 universities and 75 economic clusters.
- The SCANDRIA Project covers the northern part of the corridor from Scandinavia down to the Capital Region Berlin-Brandenburg including about 15 million inhabitants.



#### Vision of the SCANDRIA corridor

- Container flow Europe-Asia
- A new northsouth transport corridor in Europe

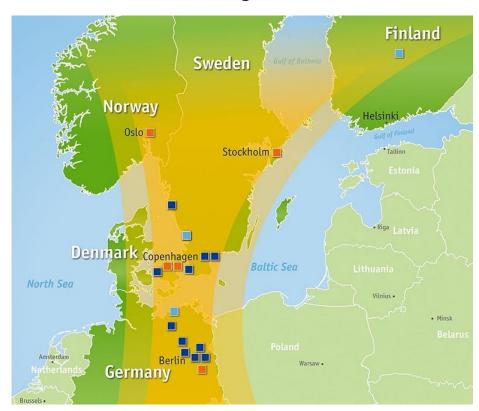


## The SCANDRIA Project

- 19 partners from Germany and Scandinavia
- Representing business, administrations and research institutions.
- Funded by the Baltic Sea Region
   Programme of the European Union.

Total budget: 3.8 Mio Euro ERDF funding: 2,8 Mio Euro.

Duration: June 2009-September 2012



#### SCANDRIA Green Corridor Strategy

- Part of the overall strategy, also including
  - logistics
  - infrastructure
  - investment
  - institutional cooperation
  - business cooperation
- A general structure of strategic work
  - Visions
  - Strategies
  - Action plans
- A pragmatic approach
  - how can we make freight transport in the corridor greener
  - how can the partners influence development
- A preliminary version