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The North Sea Region (NSR):



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The rationale behind SUTRANET:

increased regional interaction

↓

growing regional competitiveness

↓

more local income generation and employment

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IMPROVED KNOWLEDGE BASE AND PLANNING TOOLS:

Data ↔ Modelling ↔ Scenarios

- ❑ **Databases –**
Unitised Goods Flows via Ports
- ❑ **Development Scenarios –**
Case: Norway - Jutland - Continent

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Aim of the SUTRANET databases:

Elaborate a first step of a common
information system for unitised goods
transport flows and traffic in the NSR,
with a particular focus on goods handling
via North Sea ports and maritime routes

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Databases for unitised goods flows – some definitions

Ro-Ro (roll-on roll-off):

Involves mainly accompanied trailers and semi-trailers carried by Ropax ferries (for combined passengers and freight) and Ro-Ro ferries (for freight only)

Lo-Lo (lift-on lift-off):

Involves containers carried by feeder vessels and deep-sea vessels

Intermodality:

The transport system allows at least two different modes to be used in an integrated manner in a door-to-door transport chain



Databases (and a statistics report) for each of the countries/areas:

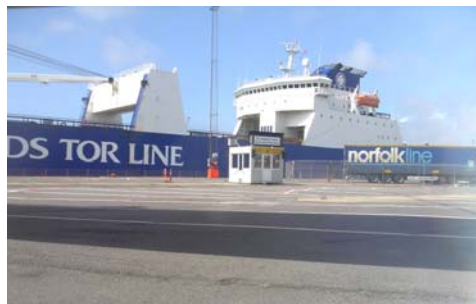
- **UK East Coast**
- **Norway**
- **Denmark**
- **Sweden Kattegat Coast**
- **Germany**
- **Netherlands/Belgium**





Databases for unitised goods flows:

- Only NSR related ports
- Only international traffic
- Years 2003, 2004 and 2005
- Selected time series





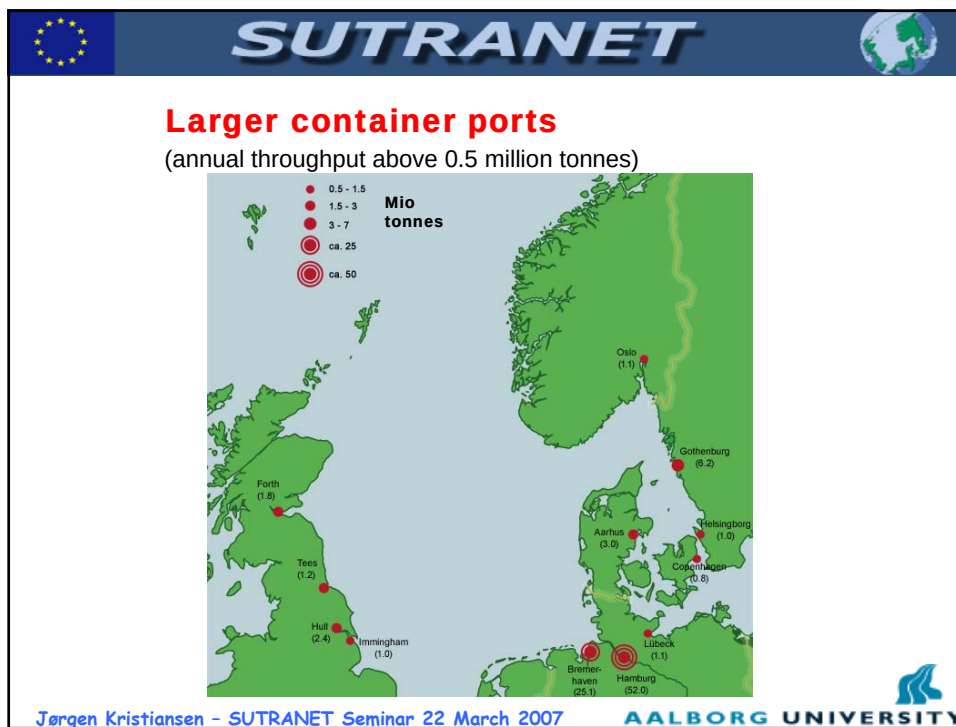
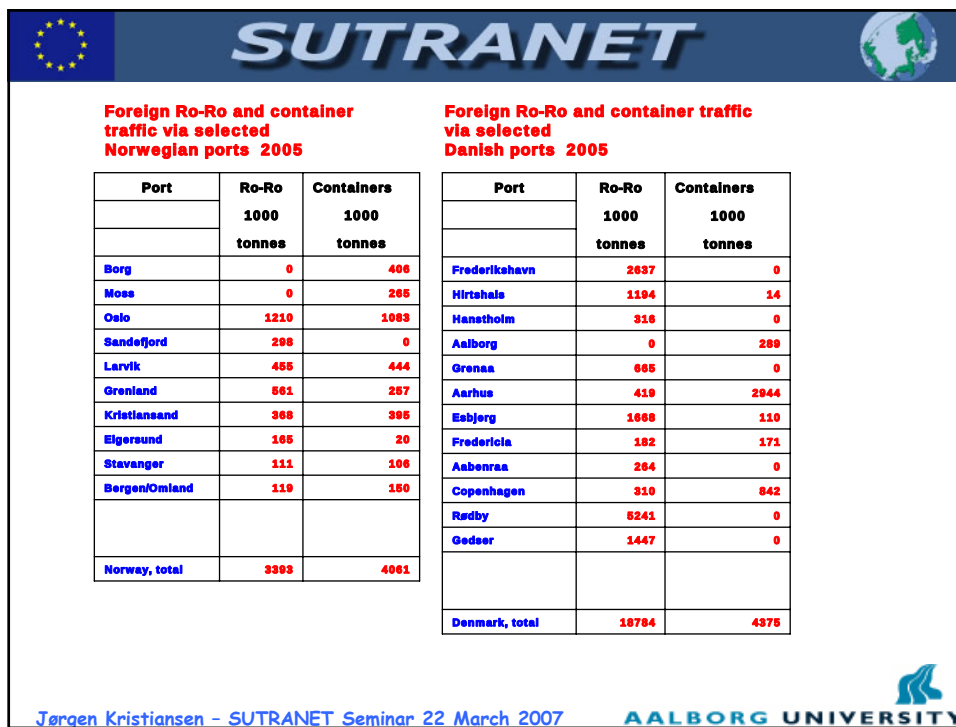
The banner features the SUTRANET logo at the top, flanked by the European Union flag on the left and a globe icon on the right. Below the logo is a list of database features in red text, each preceded by a red square icon. At the bottom, the text 'Jørgen Kristiansen - SUTRANET Seminar 22 March 2007' and 'AALBORG UNIVERSITY' are displayed.

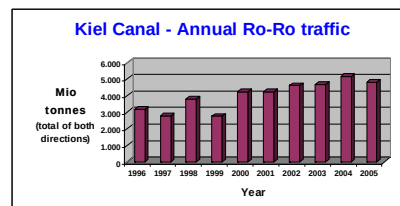
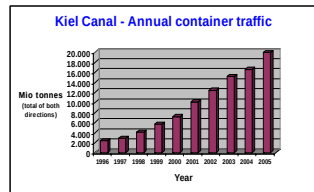
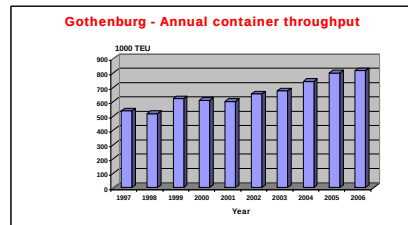
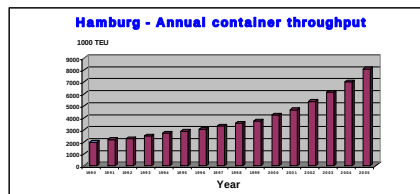
A database structure that enables comparison and combination between countries:

- ☐ **Comparative (overview) table of ports ("Annex 1")**
- ☐ **Ropax and Ro-Ro (freight) ferry routes ("Annex 2")**
- ☐ **Container traffic (distribution on origin/destination countries) ("Annex 3")**

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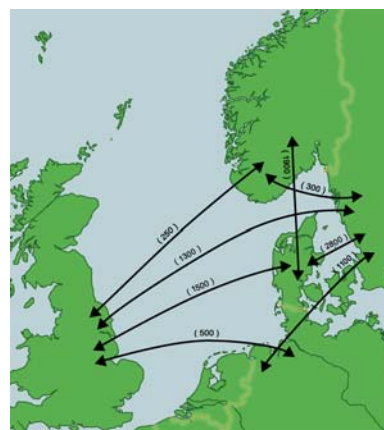
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Ro-Ro Matrix: 1000 tonnes in 2004

To/From	1	2	3	4
	UK East Coast	Norway	Sweden Kattegat	Denmark
1 UK East Coast				
2 Norway	250			
3 Sweden Kattegat	1300	300		
4 Denmark	1500	1900	2800	
5 Germany North Sea	500	0	1100	0



Some recommendations for improvements and harmonisation:

- Include a systematic reporting of semi-trailers at route level (done by UK)
- Report Ro-Ro freight ferry traffic at the route level like some countries do it for Ropax routes
- Establish a systematic reporting of container transshipment, e.g. based on periodic surveys
- Publish the geographical distribution of container traffic at port level
- Establish periodic origin/destination surveys for Ro-Ro traffic (route level)

Development Scenarios

AIM:

Illustrate the scenario building methodology as a planning and decision-making tool

Case: Norway-Jutland-Continent Corridor



Alternative Scenarios:

☐ **Baseline or “do nothing” or “business as usual” scenario**

A

☐ **Intermodal development, regional integration**

B

high/low economic growth in both scenarios

Time horizon (quantification of variables): year 2020

Time horizon (qualitative description): year 2030/2040

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Objectives of Scenario B:

- **Enhance regional interaction (Norway-Jutland)**
- **Improve accessibility between Norway and the Continent**
- **Ensure environmental sustainability of transport solutions**

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Optional routing in the corridor:



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SCENARIO ISSUES:

- Future port pattern in Southern Norway?
- How road pricing for freight traffic (through Jutland and western Sweden) will influence the modal shift?
- Development of containerisation?
- what will be the future role of railway infrastructure serving unitised goods in the corridor?

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Types of flows:

- **Regional goods flows between Norway and Jutland (Ropax and Ro-Ro)**
- **Flows between Norway and the Continent (Ropax and Ro-Ro)**
- **Container feeder flows between Norway and the Continent**

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Ro-Ro traffic Norway-Jutland

Foreign trade Denmark - Norway

Annual Ro-Ro traffic in the corridor (in 1000 tonnes)

	1990 1000 tonnes	2005 1000 tonnes	Growth Factor 1990- 2005	Scenario A 2020		Scenario B 2020	
				Growth factor	1000 tonnes	Growth factor	1000 tonnes
Regional	492	971	1.97	2.0	1,943	2.5	2,429
Transit	627	1,228	1.97	2.0	2,457	(2.0)	2,671
Total	1,119	2,199	1.97	2.0	4,400	2.0	5,100

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Policy measures:

- Legal and institutional framework
- Transport policy implementation:
 - Road pricing
 - Investments in ports and railway infrastructure

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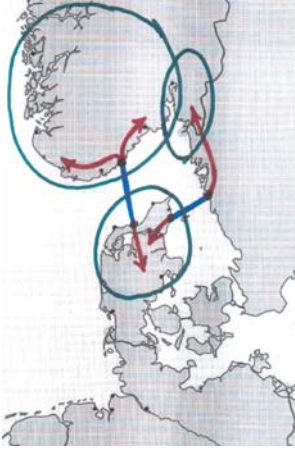
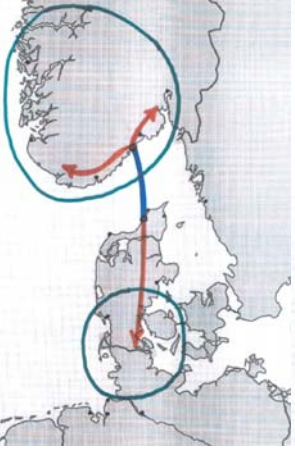
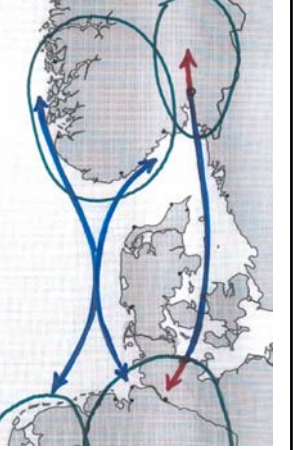

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Ferry + road	Ferry + rail	Short-sea shipping
		
Short distance: Ferry routes between Southern Norway and North Jutland	Medium distance: Railway (?)	Long distance: Ropax/Ro-Ro routes between Norway and the Continent

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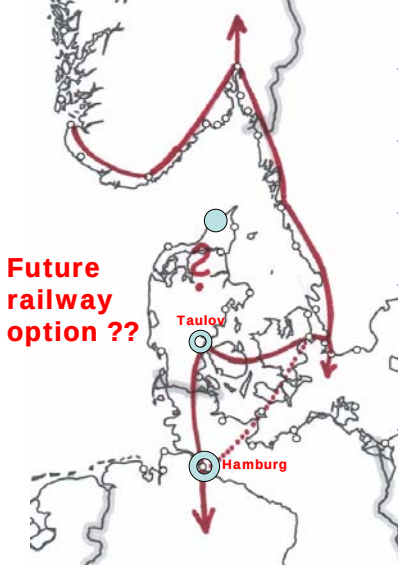
Obstacles to the Danish state rail network as a viable modal option:

- No overall strategy and masterplan
- Inadequate network alignment
- Insufficient periodic maintenance and rehabilitation
- No harmonisation of operational standards with Sweden and Germany
- The institutional and organisational setup represents a mismatch of responsibilities
- A distorted market for rail freight services

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Future railway option ??

Taulov

Hamburg

RECOMMENDATIONS:

- ✓ The institutional setup to be reshaped
- ✓ A clear strategy and long-term investment plan
- ✓ Upgrading and electrification of the railway infrastructure
- ✓ A sustainable maintenance organisation
- ✓ The road/rail terminal in Taulov to be an independent service provider
- ✓ A regulatory framework to ensure a competitive market for freight operators
- ✓ Liaison and coordination with German rail authorities and the EC

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Thank You

**More information about SUTRANET
including reports, statistics, seminar
presentations etc. at:**

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