
green
FERRIES

baltic energy forum

Converting Ferries, RoRo-Ships and Ports into green maritime Transport Links between Baltic Sea Nations

GREEN FERRIES

a project to be part-financed by

Baltic Sea Region
Programme 2007–2013

Good morning

Capt. Jörg Sträussler

Chairman of

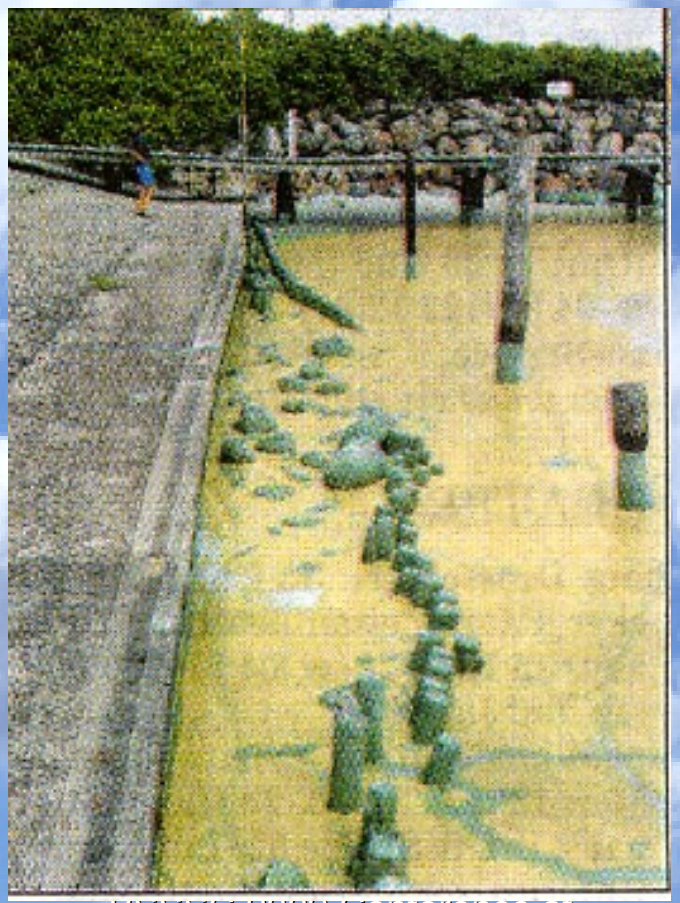
Baltic Energy Forum e.V.

Co-ordinator

„Green Ferries“

Welcome to beach life

Blue Algae originating from NO_x deposition in the sea



One of the NO_x sources a few metres next door

Algae blooming by NO_x in the Baltic Sea

Satellite Picture of Algal Bloom in the Baltic – June 2005.

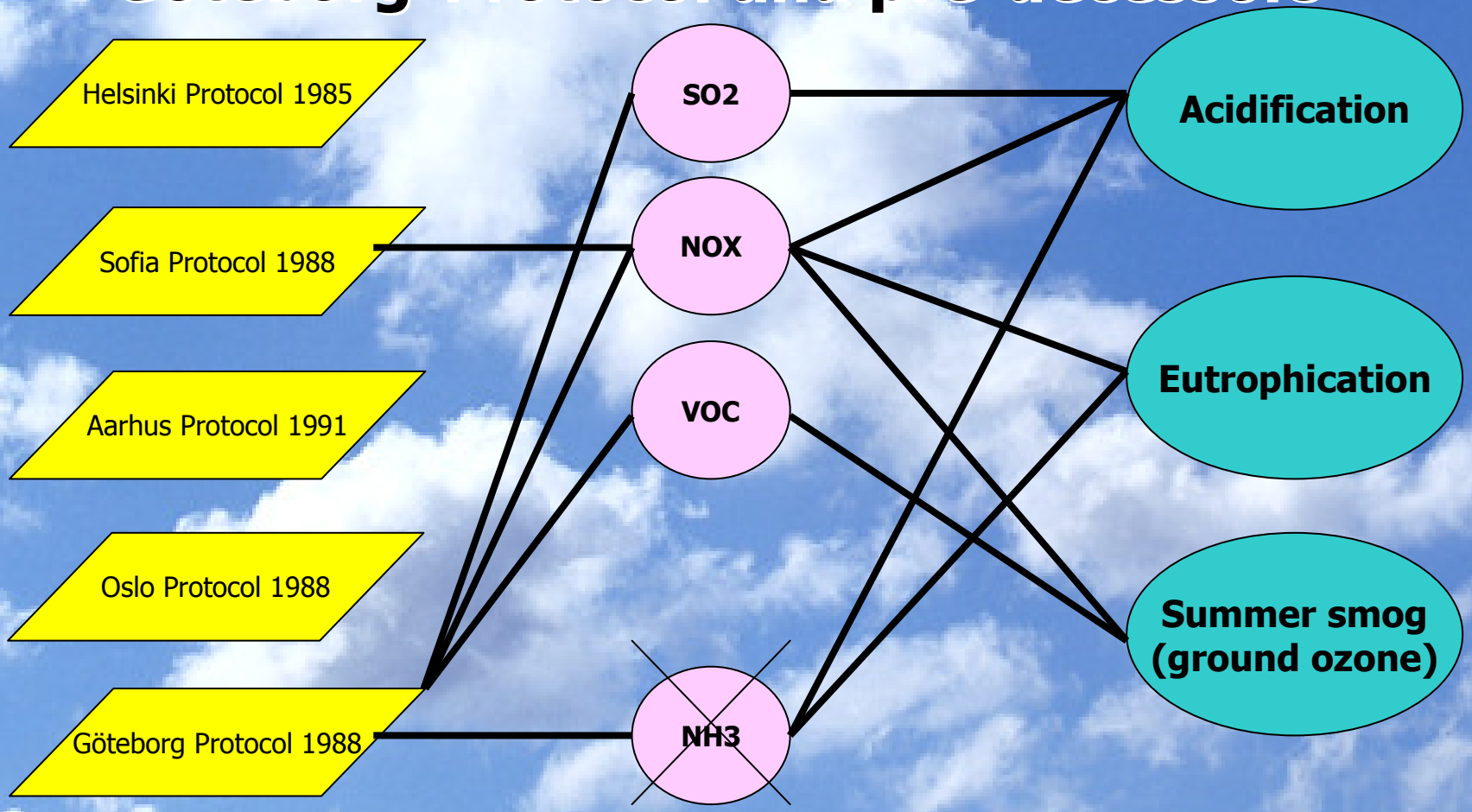
We did not believe it until we saw it on our own coasts

Key Messages from HELCOM

Emissions from Baltic Sea shipping during 2006 were found to be larger than previously reported.
Baltic Sea ship emissions from 2006 are comparable with:

- NOx, 370 kt/year: Combined land-based emission sources of Finland and Sweden (382 kt/year)
- SOx, 159 kt/year: Combined land-based emission sources of Finland, Sweden, Denmark and Norway (155 kt/year)
- CO2, 17.4 Mt/year: Combined emission of all modes of transport (air, sea, road, rail) in Finland (14.4 Mt/year)
- Energy consumption, 226 PJ: Combined energy consumption of all modes of transport in Finland (227 PJ)

Göteborg-Protocol and pre-decessors

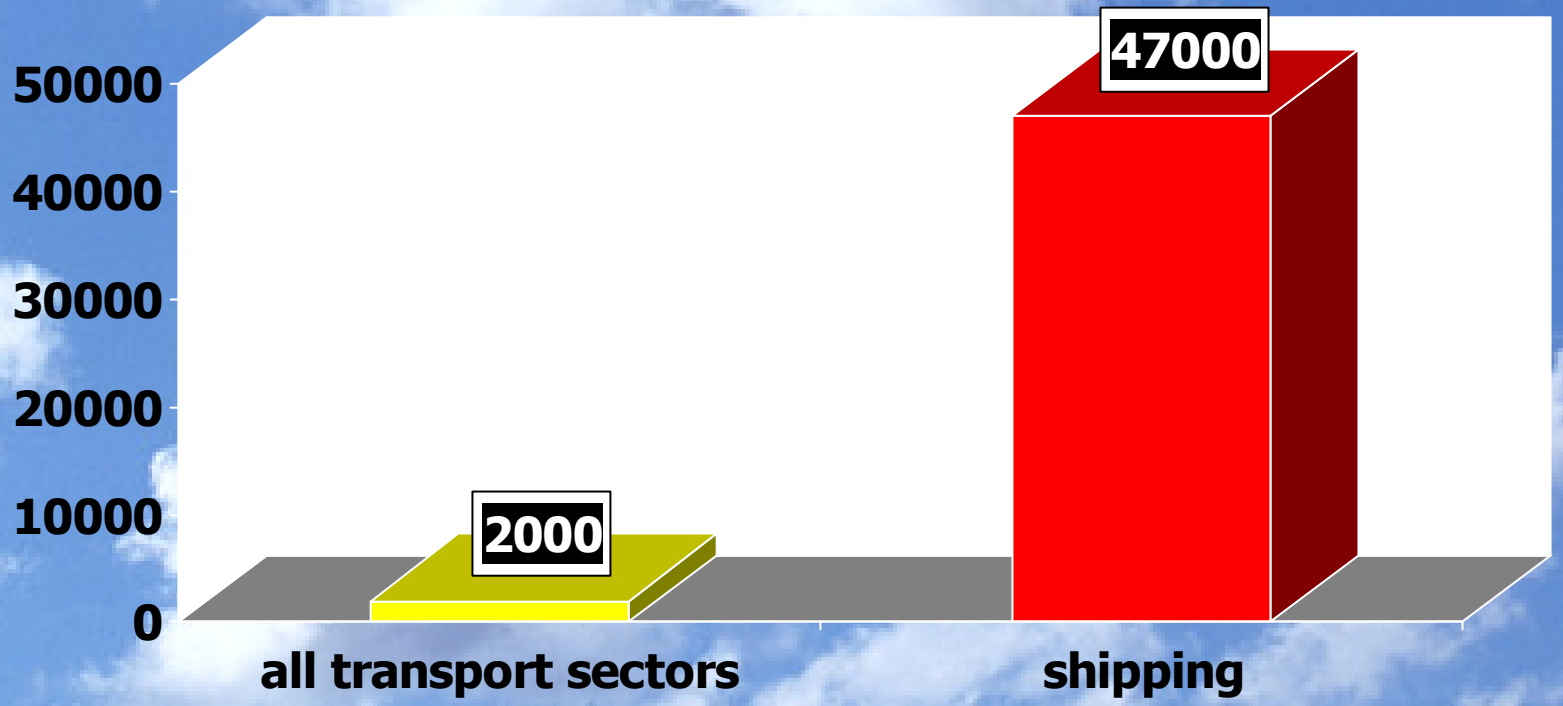


Policy relevance, policy reference and coherence with HELCOM

- Roughly one third of the nitroge… …ea arrives through atmospheric deposition. In… …oad, the atmospheric load i… …ropogenic (Stipa et al, in prep). The at… …ailable for the eutrophication of off…
- Shipping has been ide… …NOx deposition with a Baltic-wide shar… …hare reaching 50% of the NOx deposi… …ltic Sea (Stipa et al, 2007).

50% of the air borne nitrogen loads from shipping

SO_X emissions in Germany (2005)



Achievements of New Hansa

- "Memorandum of Understanding on Sustainable Port and Maritime Policy in the Baltic Sea Region
- One cable shore side electricity system developed
- COMMISSION RECOMMENDATION of 8 May 2006 on the promotion of shore-side electricity for use by ships at berth in Community ports
- Four shoreside electricity systems installed in Stockholm, Lübeck, Kema, Uolu (ex-post)

Indirect achievements of New Hansa

- Inclusion of shoreside electricity in the "Integrated Maritime Policy for the European Union"
- Inclusion of shoreside electricity in "European Union Strategy for the Baltic Sea Region"
- Inclusion of shoreside electricity in COM(2006)545 final "Action Plan for Energy Efficiency: Realising the Potential"
- Inclusion of economic incentives in the HELCOM Baltic Sea Action Plan

What New Hansa has not achieved yet

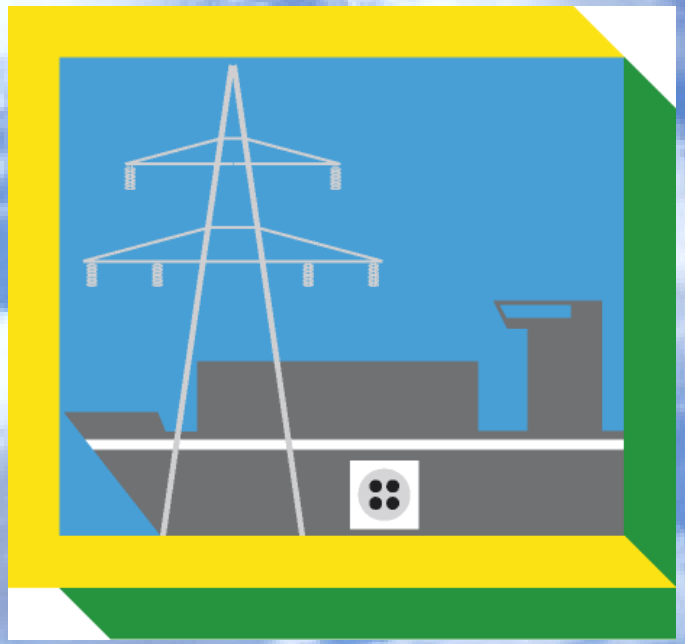
- A measurable reduction of emissions on Baltic Sea level
- A mass multiplatication of pilots
- Introduction of gas or LNG as ship‘s fuels
- Concerted avoidance of sewage and food waste

What Green Ferries wants to achieve

- Contribute to avert Baltic Sea acidification (SO_X, CO_2)
- Contribute to avert Baltic Sea eutrophication (NO_X)
- Contribute to slow down climate change
- Multiplication of shoreside electricity to as many as possible ports and ships
- Introduce natural gas, bio gas, liquid natural gas and liquid bio gas as green fuel for as many as possible ports and ships
- Ships to deliver their waste and wastewater to ports

New ways to a green horizon

Up to 40% reduction of emissions in port by cold ironing



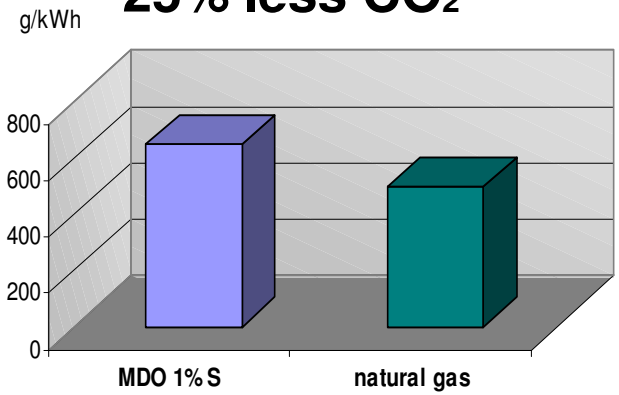
Reduction of emissions in port and at sea by natural gas LNG and Bio-LNG

For the whole of the Baltic Sea

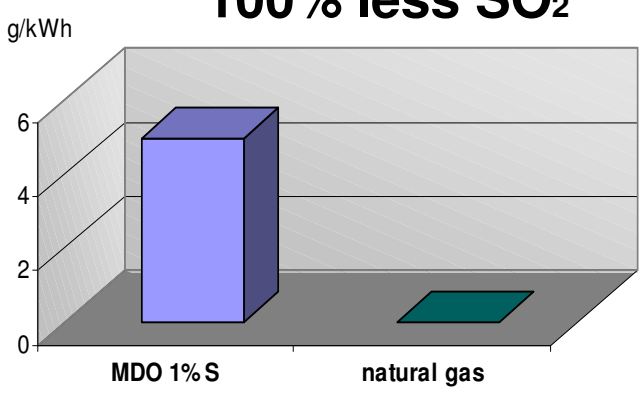
Concerted actions in ports, on ships and for specific itineraries

Emissions MDO versus Natural Gas

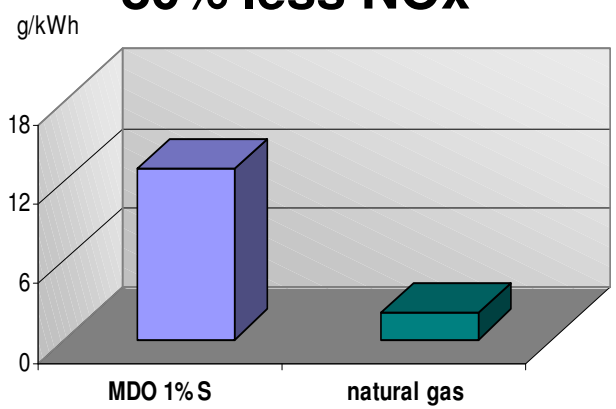
25% less CO_2



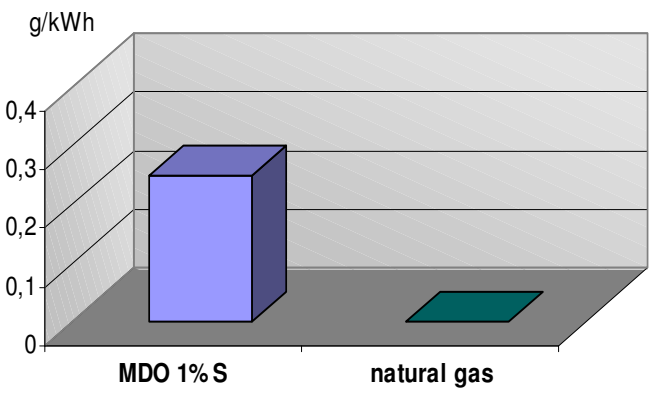
100% less SO_2



80% less NOx



100% less Particulates



Avoidance of releasing sewage and dumping food waste into the sea

For the whole of the Baltic Sea

Concerted actions in ports, on ships and for specific itineraries

Relevance to the Baltic Sea Programme

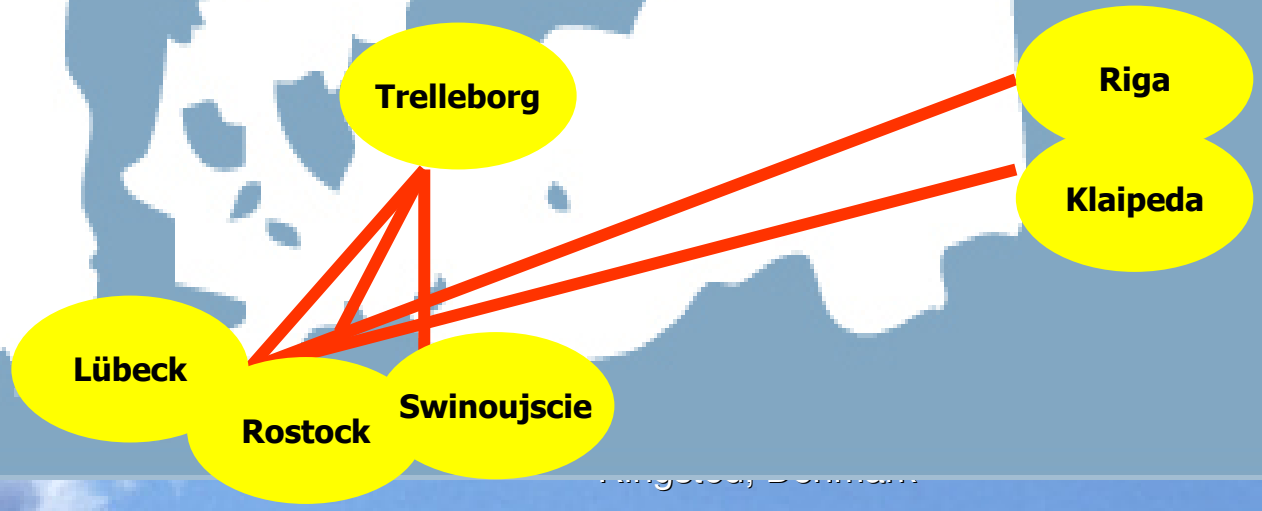
- Priority 3 – „Management of the Baltic Sea as a common resource

- Area of support 1: Water management with special attention to challenges caused yb increasing economic activities and climate change

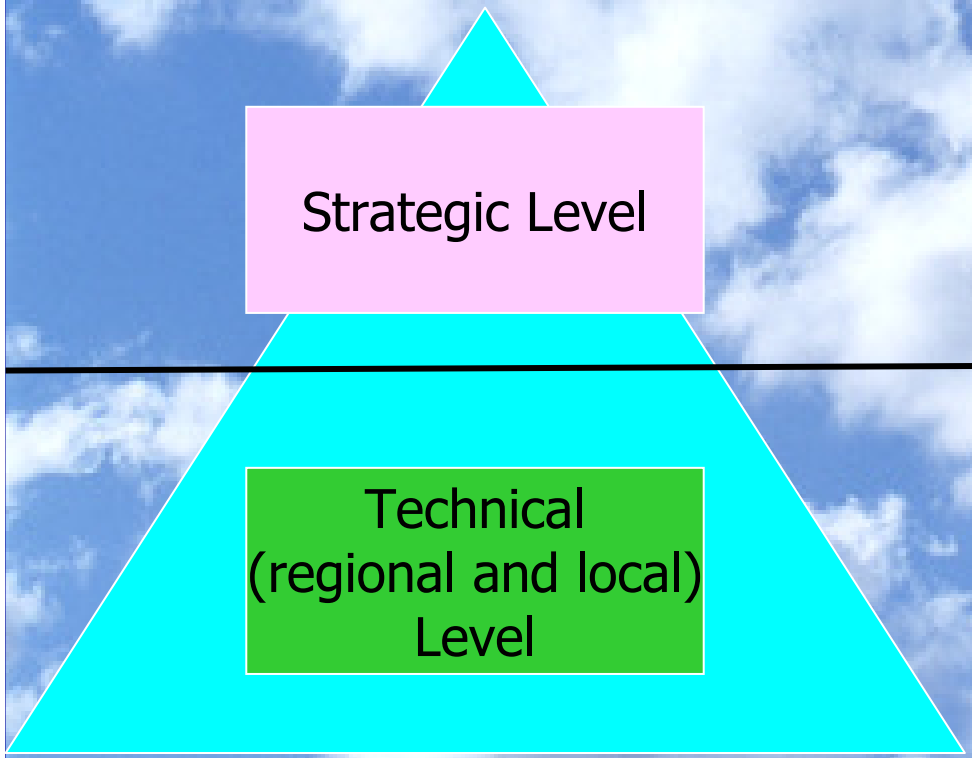
- Actions to prevent transboundary pollution and to promote environmental management and standards

Cooperation routes and locations sofar

More strategic partners requested



Joint strategies and concerted investments



- Baseline Study
- Joint clean shipping strategy
- Joint clean air and water strategies
- Standards for energy and sewage
- Award for best practices
- Flag for sustainable shipping

Jointly by ports, energy suppliers, approving bodies, shipping companies

✓ preparation of investments into shoreside electricity

✓Preparation of investments into gas supply

✓Preparation of investments into sewage reception facilities

The core workpackages

WP3
Joint Strategies
Clean Air and
Water

WP4
Concerted
Investments
Cold Ironing

WP5
Concerted
Investments Gas
and LNG supply

WP6
Concerted
Investments
sewage

Partnership

Strategic Level

- **Political advisory board**
  -National political and administrative bodies
- **Shipping/Port advisory board**
  -Shipowners associations
  -Shipping companies
  -Classification and Safety Organizations
- **Interregional Partners (BSSSC)**

Technical (regional and local) Level

- Port Authorities
- Energy Supplyers
- Shipping companies
- Scientific bodies and others

Partnership Matrix

	Sweden	Germany	Poland	Latvia	thuania	Norway	Denmark
Cities	Trelleborg	Lübeck					Gedser
Ports	Trelleborg				a		
Shipowners		TT-Line					Scandlines
Energy suppliers	E.ON Sweden						
Scientific bodies		GA			aa		
Energy Agency, Cluster, Techn Centre		Baltic Forum			Klaipeda Science & Technology Centre		
Prof. Associations		German Shipowners				Norwegian Shipowners	

Requested:
2-3 partners from each Baltic Sea State

We will closely co-operate with

Clean North Sea Shipping

a project to be applied for under

The Interreg IVB North Sea Region Programme

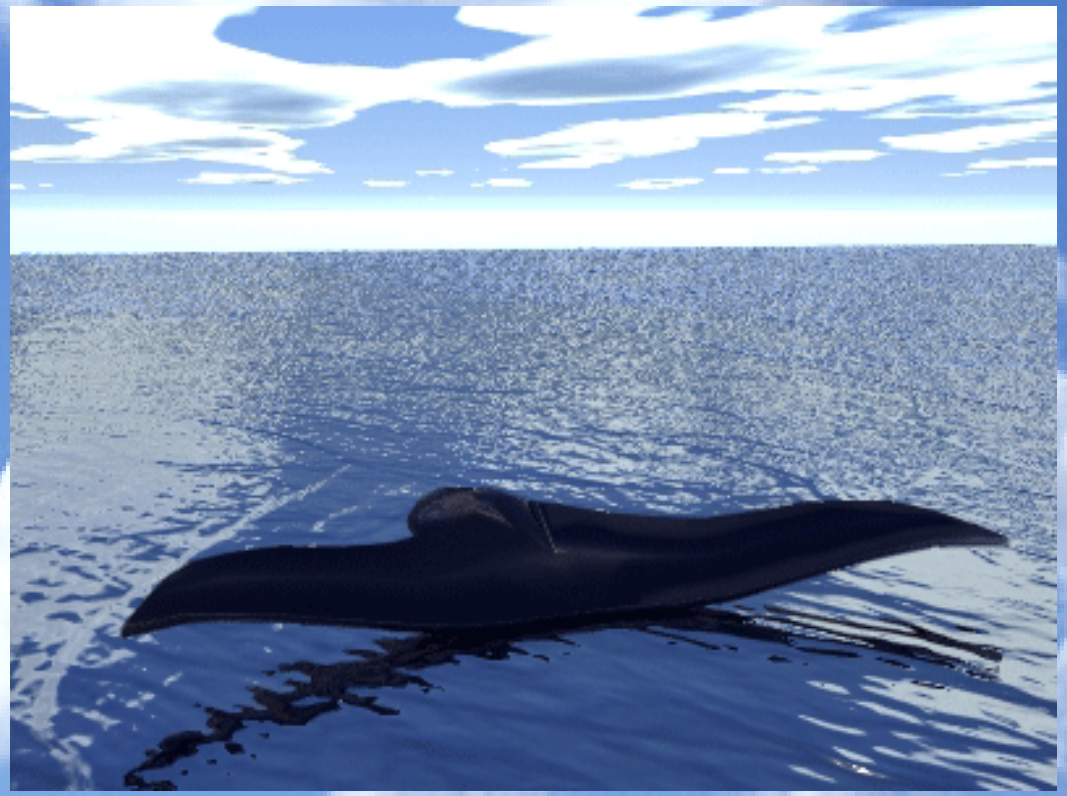
We will also cooperate with

WAB – Wetlands-Algae-Biogas

(Reduction of Baltic Sea Farmland Nutriants through new WETLANDs, used as Harvest Zones for product ion of local Biogas)

This project will tackle nitrogen input into the Baltic Sea from the shore side

You are invited to clean up the Baltic Sea together with us



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