



**A project co-financed by the EU Interreg IV B Baltic Sea Region Programme
aiming at “Efficient, Safe and Sustainable Traffic at Sea”**

Presentation by
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Danish Maritime Safety Administration



Safe and Secure Place

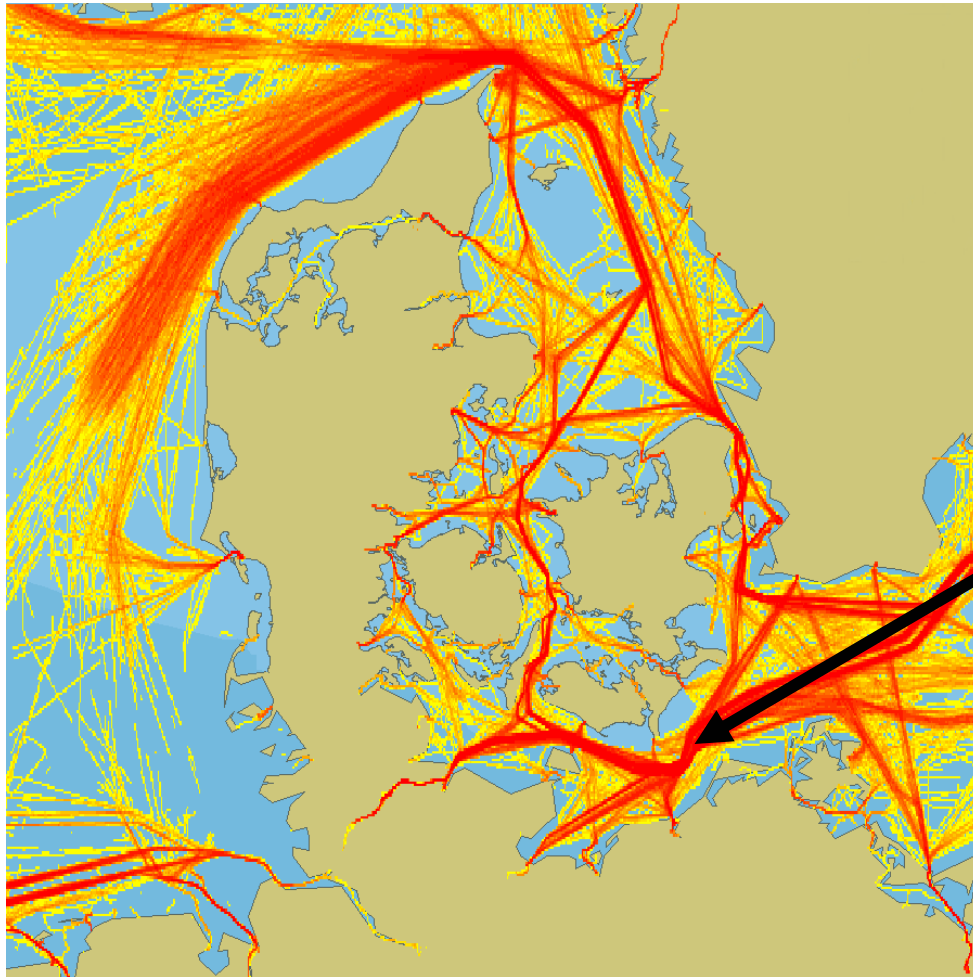


Oil transports especially
from Russia have doubled
in the period 2000-2007

Oil transports in the Gulf
of Finland have increased
by 4 from 1995 to 2005

Increase is expected to
continue





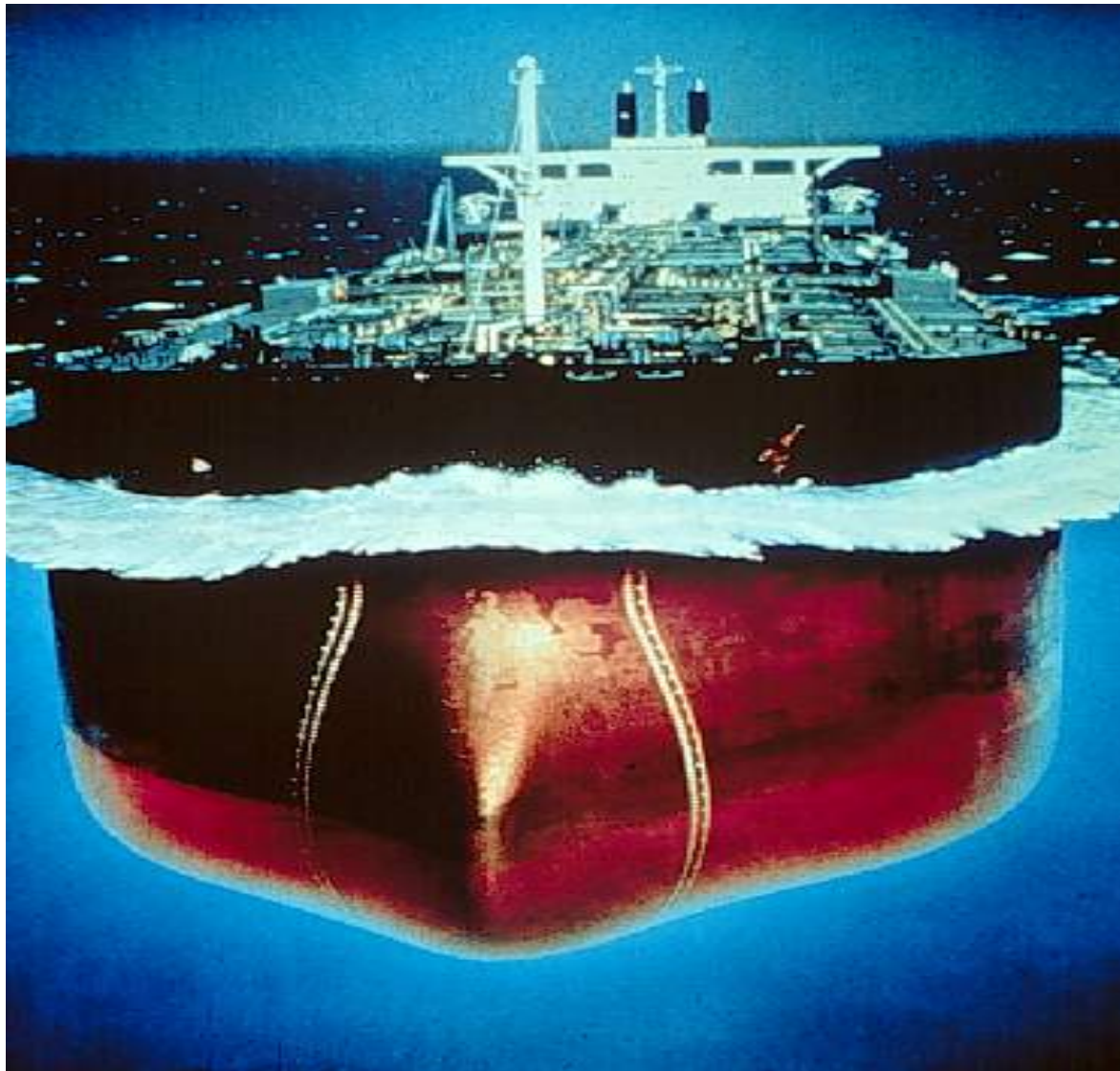
More than 70.000 ships
and 10.000 tankers are
passing the narrow
straits



FARVANDSVÆSENET
Danish Maritime Safety Administration



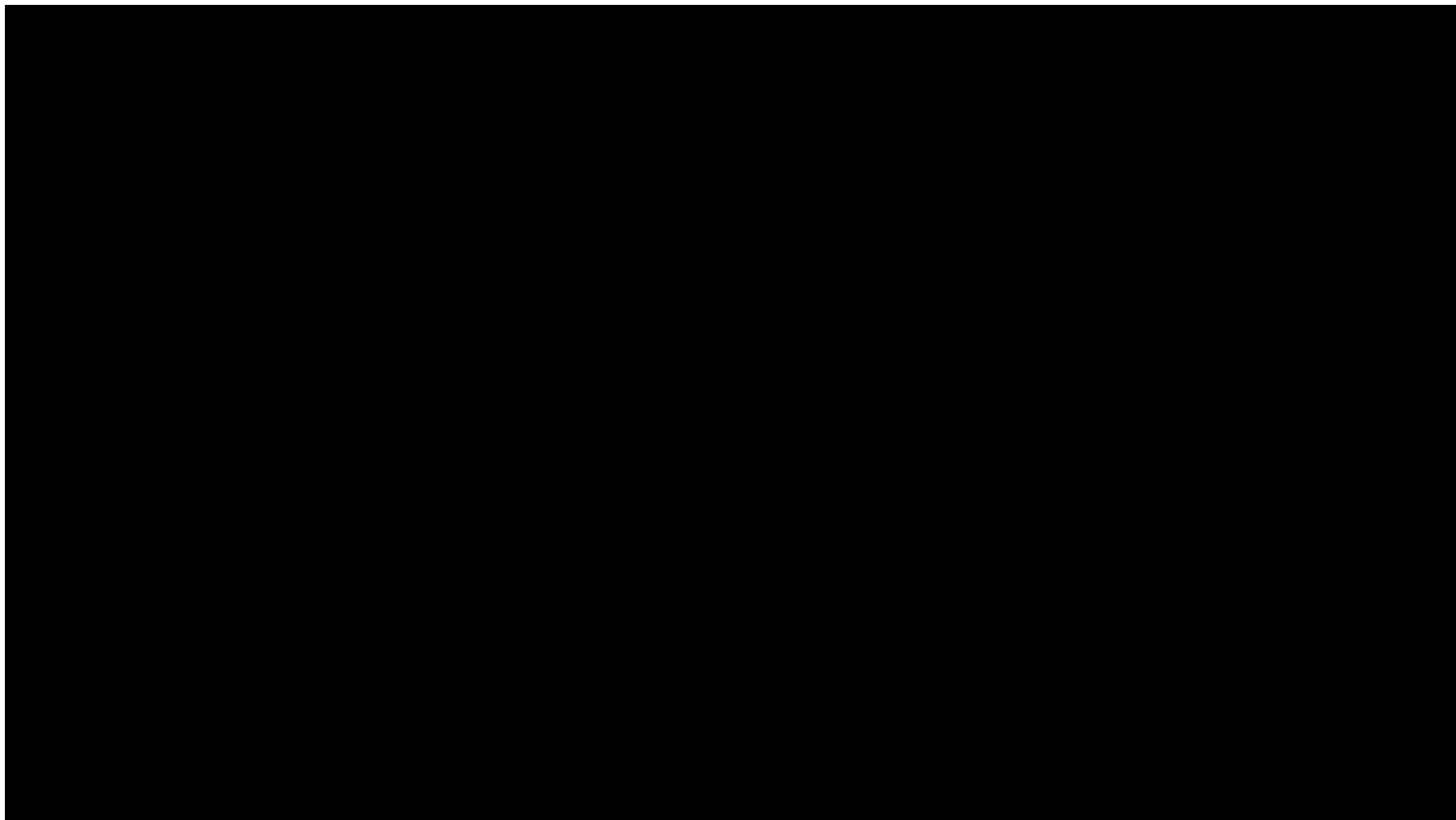
Many people look
at a ship like this!



We look at it
like this!



FARVANDSVÆSENET
Danish Maritime Safety Administration



FARVANDSVÆSENET
Danish Maritime Safety Administration

The EfficienSea project in brief...

- Involves 16 partners from Denmark, Sweden, Norway, Finland, Poland and Estonia and an associated industrial partner (Maris)
- Has a budget of 8 Mill. € (and is thus in terms of financing one of the largest Interreg projects)
- Lead partner: the Danish Maritime Safety Administration
- Timeframe: 2009 – 2011 (possibly to be extended)



The objectives of the EfficienSea project...

- **Efficient, Safe and Sustainable traffic at sea**
- **Improving maritime safety**
- **Improving environmental sustainability**
- **Accident prevention**
- **Raising awareness of challenges in a regional context**



Contents of the EfficienSea project...

Prevention is a key word for all the so-called work packages of the project, which focus respectively on:

- **Improved maritime education – better accident prevention**
- **E-Navigation– increased situation awareness**
- **Improved maritime planning – a holistic approach**
- **Dynamic risk management tools – prevent accidents**

Work packages

WP1 - Project Management Danish Maritime Safety Administration				
WP2 Communication Danish Maritime Safety Administration	WP3 Recruitment & competences Swedish Maritime Administration	WP4 e-Navigation Danish Maritime Safety Administration	WP5 Vessel Traffic Data & Maritime Planning Norwegian Coastal Administration (by interim Danish Maritime Safety Administration)	WP6 Dynamic Risk Management Finnish Transport Agency

e-Navigation is one of the central components of the EfficienSea project and deserves particular mentioning...

According to IMO definition from 2005:

e-Navigation is the harmonised collection, integration, exchange, presentation and analysis of maritime information onboard and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment.

In short: a holistic approach to navigation!

Proposed e-Navigation services (included in mock-up 2.0)

General principles

Integrating information in one system

Only show relevant information in the given situation
(decision support / information filtering)

Different visualisation method based on task at hand
(2D, 3D presentations)

Object fusion

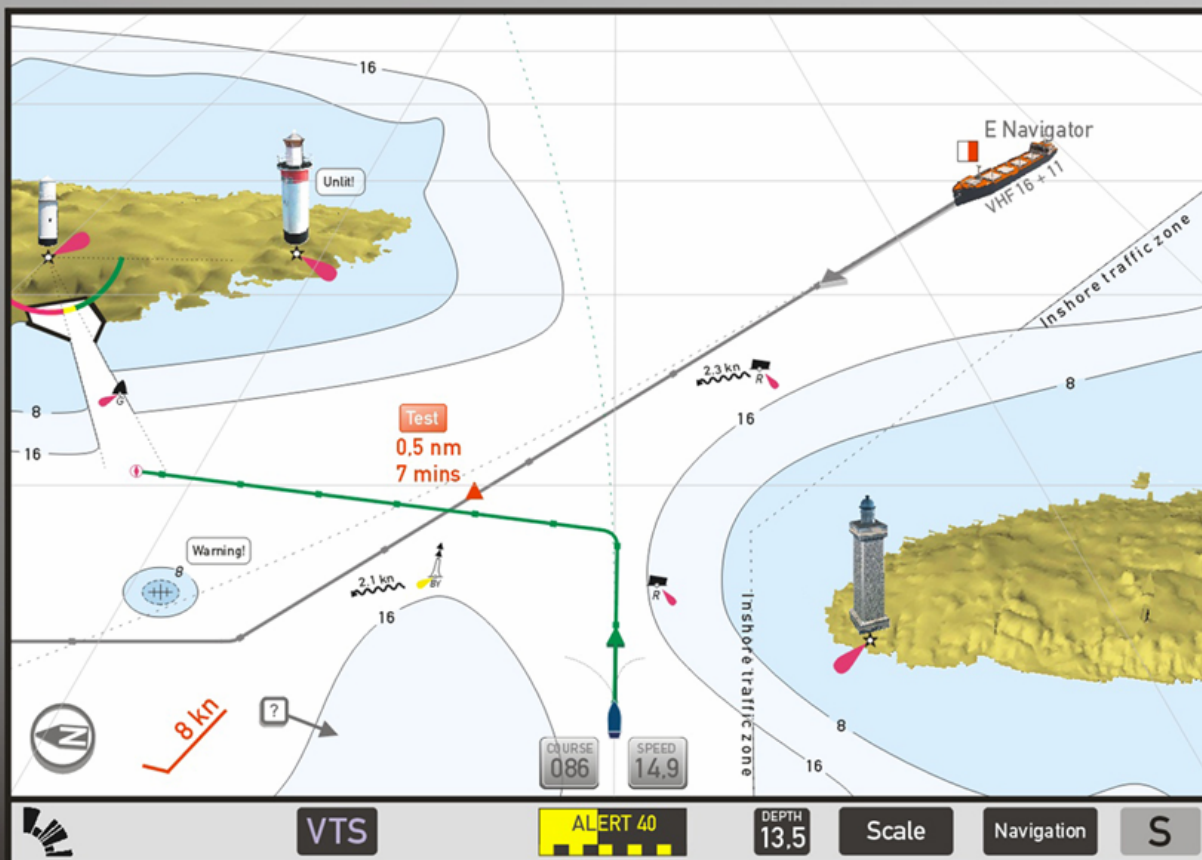
Only one object presented in display for one physical
object

Information sharing

(All relevant information is shared between all users
shore and sea)



E-navigation "mock-up"



Test-bed for e-navigation in the Baltic Sea

EfficienSea is setting up a test bed in the Baltic Sea with different levels of e-Navigation services

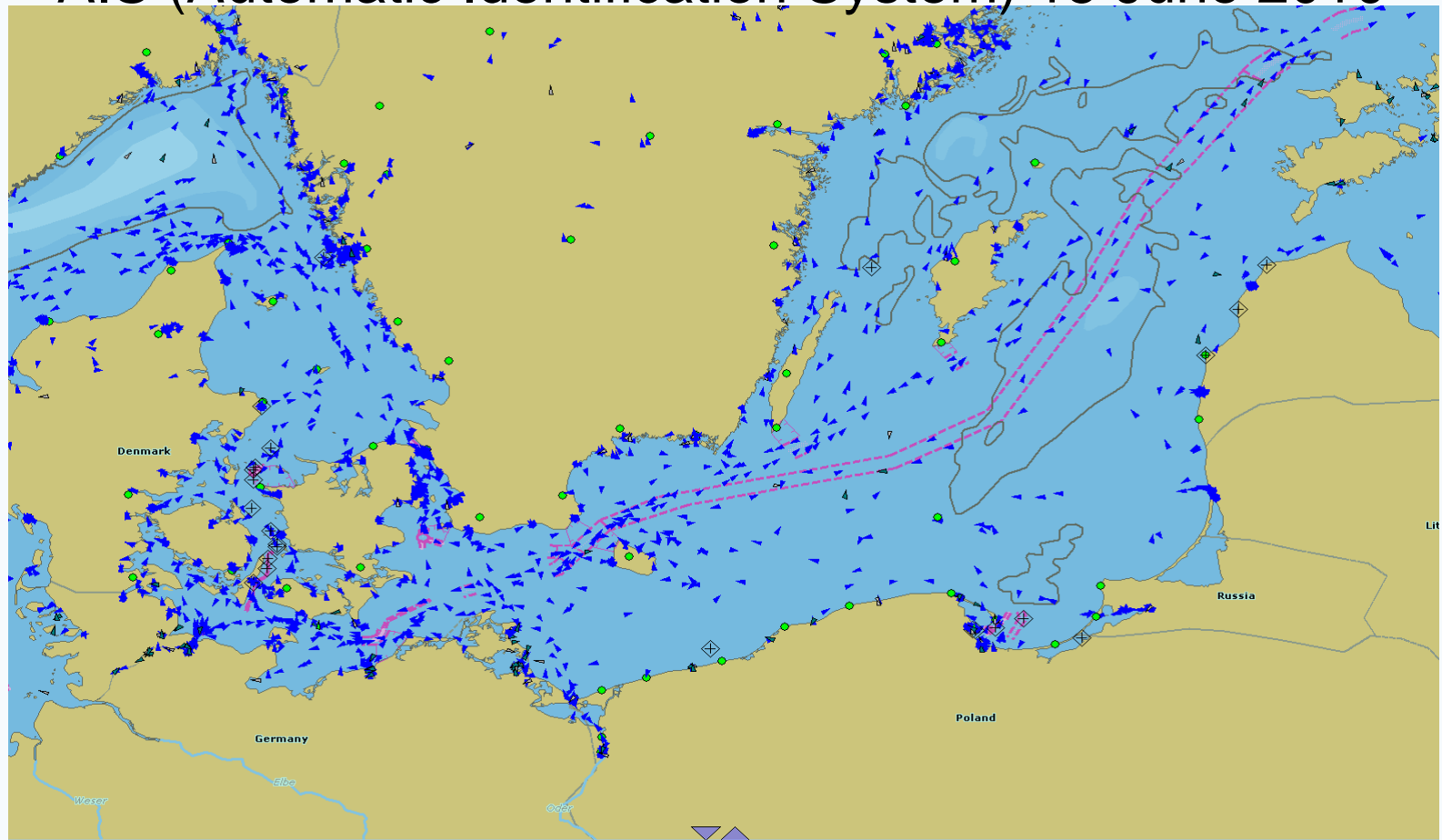
The primary focus area is the sound between Denmark and Sweden

Possible other focus areas:

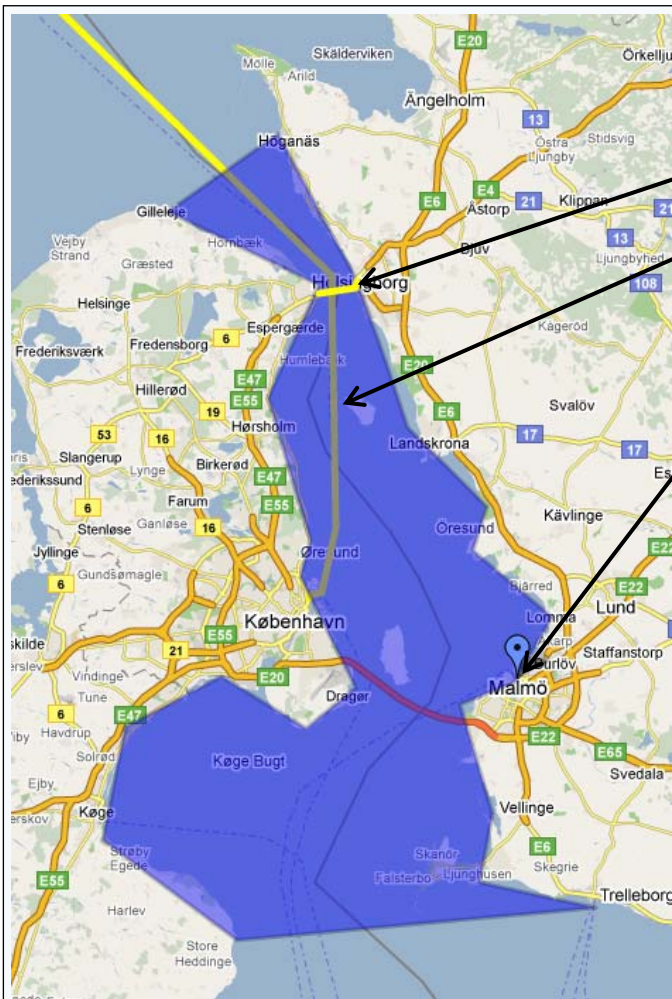
Strait between Finland and Estonia (AIS tests)

Bay of Gdansk

AIS (Automatic Identification System) 15 June 2010



14/06/2010 15:19:16 User: ais-frv-clb (09:50:54) OSF Connected Disconnected, Pending Change Connected Target Count (offline): 1974 Target



Test bed users include:

Scandlines; Ferries between Elsinore and Helsingborg

DFDS; Ferries between Copenhagen and Oslo

Herning Shipping; Tankers

Sound VTS Vessel Traffic Service

Pilots: Transit and port calls

Svitzer: Tug boats operating in the area

Visby tankers

DaMSA: Bouy tenders

Stena Line; ferries

"Participants in EfficienSea test bed 1/4"



Prins Joachim
Scandlines
Gedser - Rostock



Tycho Brahe
Scandlines
Elsinore - Helsingborg



Pearl of Scandinavia
DFDS
Copenhagen - Oslo



Crown of Scandinavia
DFDS
Copenhagen - Oslo



Stena Carisma
Stena Line
Frederikshavn - Göteborg



Bitten Theresa
Herning Shipping
...

" Participants in EfficienSea test bed 2/4"



Vitta Theresa
Herning Shipping

...



Fenja
Svitzer

...



Mars
Svitzer

...



Wisby Wave
Wisby Tankers

...



Poul Løwenørn
Danish Maritime Safety
Administration



Jens Sørensen
Danish Maritime Safety
Administration

“Participants in EfficienSea test bed 3/4”



Zodiak
Maritime office of Gdynia

...



Tucana
Maritime Office of Gdynia

...



Katarina
KYAMK

...



Sektor
Estonian Maritime
Administration

...



A number of pilot vessels
DanPilot / Danish Maritime
Safety Administration

...



Eva
Estonian Maritime
Administration

...

“Participants in EfficienSea test bed 4/4”

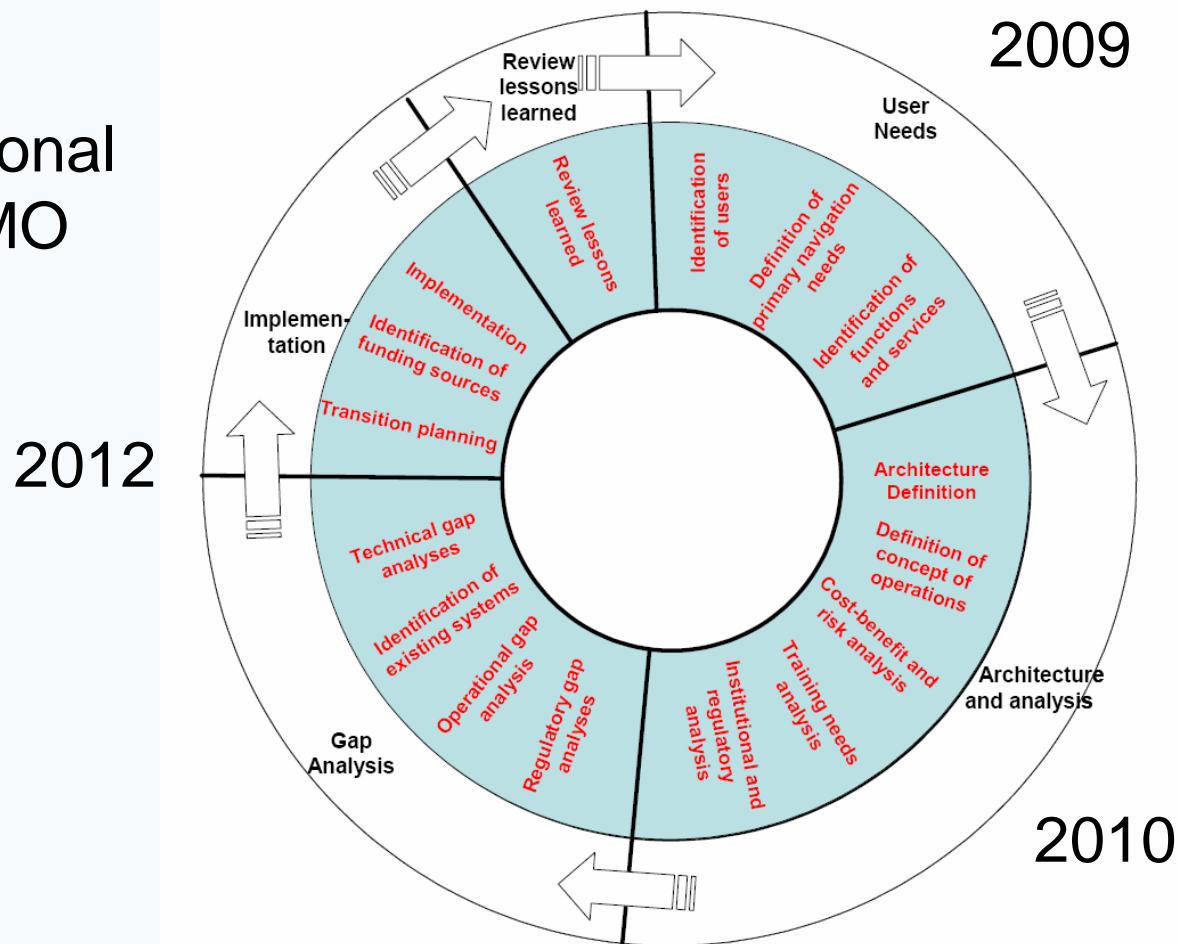
And finally
Vessel Traffic Service centre(s)

Sound VTS



SOUND VTS is a cooperation between Danish and Swedish authorities that aims to improve the safety of navigation. SOUND VTS provides information to the shipping about specific and urgent situations, which could cause conflicting traffic movements. SOUND VTS broadcasts relevant information concerning safety of navigation in the operational area.

The international process in IMO



Draft political Recommendations – 19th BSPPC Draft Resolution

..support the initiatives to improve safety and environmental risk reduction in the Baltic Sea, i.e. efficient and compatible surveillance, monitoring and routing systems and addressing the human element factor.

Thank you for your attention

Additional information is available at

www.frv.dk

www.efficiensea.org