

Efficient, Safe and Sustainable Traffic at Sea

EfficienSea - Baltic Sea Region Programme Project

**International Workshop:
"How we face risks associated with Sakhalin Oil & Gas
Developing Projects"**
September 3-5, 2009 at Abashiri Fishery Association
Abashiri-city, Hokkaido Prefecture, JAPAN



**Finnish Maritime
Administration**



**Sanna Sonninen
Development Manager**

**Jorma Rytönen
Research Director**

Content

- **Baltic Sea Region Programme**
- **EfficienSea**
 - **Project facts**
 - **Background**
 - **Objectives**
 - **Structure**



Baltic Sea Region Programme

Strategic objective of the programme

To make the Baltic Sea region an attractive place to invest, work and live in.



Baltic Sea Region Programme 2009 -2013

Key figures

- European Regional Development Fund (ERDF) budget 208 Mil. EUR
- European Neighbourhood and Partnership Instrument (ENPI) funding 22,6 Mil. EUR
- Norwegian funding 6 Mil. EUR
- 75% of project funding from EU (Interreg)
- Finnish national financing (Ministry of Employment and the Economy, Ministry of the Environment and The Finnish National Board of Education) 2007 - 2013 is approx. 7 Mil. EUR
- New demand: 10% of the budget to dissemination, information and communication
- 1st Call was open in 2008 (until May 2008)
- 24 project selected for funding, EfficienSea largest
- 2nd Call open until 31.3.2009



EfficienSea – project facts

- **17 partners from**
 - Denmark
 - Finland (FMA, TKK, KYAMK & outsourced work)
 - Sweden
 - Poland
 - Estonia
 - Norway
- **Authorities from Denmark, Finland, Sweden, Norway and Estonia**
- **EfficienSea chosen as one of the Strategic Project in BSR Programme. Selection criteria for strategic projects:**
 - Content
 - Geographical area or area of influence
 - Focus on implementation
 - National backup
- **Duration 3 years: 2008-2011 (in addition 2 year option as a Strategic Project)**
- **EfficienSea budget 8 Mil. EUR, Finnish budget 1,1 Mil. EUR**

Background

Improved competence and enhanced recruitment as a basis for improved maritime safety

Maturing maritime authorities for future investments in e-Navigation

Efficient data transfer from ship to shore and between ships

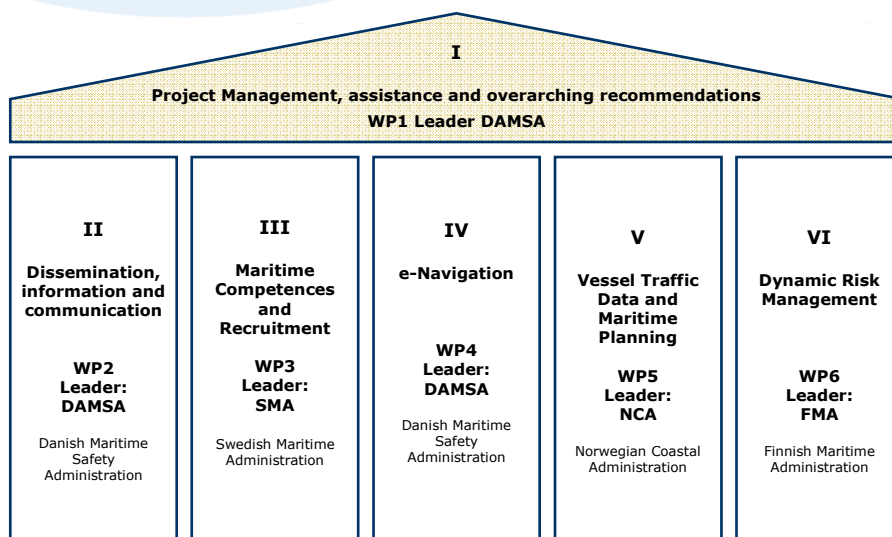
Improved methods for environmental impact assessments of maritime traffic

Dynamic risk management of vessel traffic in order to reduce maritime accidents

Objectives

- I.** In order to further safety at sea, EfficienSea aims at developing a comprehensive dynamic preventive paradigm for risk assessment.
- II.** In order to further efficiency, the project will prepare the authorities for major future investments needed to implement e-Navigation as defined by International Maritime Organization.
- III.** The project will assess which of the emerging innovations in e-Navigation would make processing and dissemination of maritime data/information more efficient - leading to improved maritime safety.
- IV.** The ambition to defend the marine and coastal environment is also linked to concerns about crew competency.

Pillars of EfficienSea – a project on Efficient, Safe and Sustainable Traffic at Sea



Thematic Work Packages



WP3

Maritime Competences and Recruitment



Leader: Swedish Maritime Administration

- **Maritime sector suffers from a shortage of competent recruits, especially for positions requiring a nautical background.**
 - The number of young European professionals entering the maritime sector must be increased by cooperative measures of various actors within the maritime sector.
 - The overall profile of the maritime sector as a career track must be communicated and the awareness of different career opportunities within the sector improved.
 - The participation and progress of women in maritime employment must be increased to reduce gender-imbalance traditionally common in the sector.
- **One of the outcome is a transnational network on competences and recruitment issues.**



WP4

e-Navigation

Leader: Danish Maritime Safety Administration

- **E-Navigation is a developing concept evolving from user needs and emerging technological opportunities.**
- **EfficienSea provides a development platform for the concept.**
- **Various components of the e-Navigation concept can be**
 - **demonstrated and**
 - **evaluated prior to full scale implementation.**
- **Baltic Sea countries and the European community gain a comprehensive best practice demonstration with the establishment of one or more e-Navigation trial zone(s) where test trial versions of e-Navigation related products and services are tested.**

WP5

Vessel Traffic Data and Maritime Planning

Leader: Norwegian Coastal Administration

Work aims on

- **integrating maritime traffic data into a coastal environmental framework,**
- **evaluating existing vessel traffic data,**
- **developing tools for linking vessel traffic information with corresponding environmental data to facilitate efficient coastal zone management,**
- **improving data bases and prediction tools on maritime traffic (including AIS management, numeric traffic simulation and environmental effects) and**
- **establishing spatially corresponding geographical, biological and coastal zone user data provide the basis for further enhancing efficiency of maritime traffic.**

WP6

Dynamic Risk Management

Leader: Finnish Maritime Administration

Work aims on

- developing and demonstrating different approaches of dynamic risk management and
- advancing from conventional risk assessment to dynamic risk management.
- Results will facilitate ship traffic control in an efficient way thus reducing the number and severity of accidents leading to pollution, loss of human lives and hampering of welfare development.
- Main outcome is to improve maritime traffic control by using intelligent technologies.
- The developed, highly user-centered technologies facilitate the improved management of risks associated with increased maritime traffic in the Baltic Sea.

WP6

Dynamic Risk Management

WP Leader

Senior Inspector Tommi Arola, FMA

- **Activity 1: Identification of user needs and system specification**
 - Owner: Chalmers
- **Activity 2: Risk analysis algorithm development**
 - Owner: Helsinki university of technology
- **Activity 3: Dynamic algorithm for analyzing online situations**
 - Owner: SSPA Sweden
- **Activity 4: Framework on economic quantification of maritime accidents and risk control measures**
 - Owner: Swedish Maritime Administration
- **Activity 5: Risk-based development of pilotage and Vessel Traffic Service**
 - Owner: Swedish Maritime Administration
- **Activity 6: Risk reduction effect of Aids to Navigation**
 - Owner: Danish Maritime Safety Administration

Thank You

Questions?

