

# **Deliverable 1.4**

## **Report on relevant ongoing external projects and test beds**

---

# DOCUMENT STATUS

## Authors

Name	Organisation
Nick Ward	IALA

## Document History

Version	Date	Initials	Description
V 0.1	15/10/2015	NW	First draft for comment
V 0.2	16/10/2015	NW	Draft incorporating comments from S Doyle
V 0.3	19/10/2015	NW	Draft incorporating comments from K Heikonen
V 1.0	23/10/2015	NW	Draft incorporating comments from B B Pedersen
V 1.1	26/10/2015	NW	Final version with additional comments from BBP

## Review

Name	Organisation
Bjørn Borbye Pedersen	DMA
Mike Card	IALA
Kaisu Heikonen	Liikennevirasto, Finland

## Table of Contents

DOCUMENT STATUS .....	2
Authors .....	2
Document History .....	2
Review.....	2
Introduction .....	4
<b>Strategy</b> .....	4
<b>Purpose</b> .....	4
<b>Timetable</b> .....	4
Projects and Test Beds .....	5
Projects/Test Beds (completed) .....	5
Projects/Test Beds (ongoing) .....	5
Projects/Test Beds (planned) .....	7
EU Agencies & Directorates.....	7
Agency projects .....	8
Non-EU Bodies .....	8
Collaboration Forums.....	8
<b>Access Options</b> .....	8
<b>Next steps</b> .....	9



# Introduction

In WP1 of EfficienSea 2, IALA leads Task 1.2: 'Liaison and coordination with other projects and test beds'. IALA manages the work in Task 1.2, preparing reports and deliverables in conjunction with the other members of the Task Group (DMA, CIRM, OFFIS).

The first deliverable of Task 1.2 is D 1.4: Report on relevant ongoing external projects and test beds. This report sets out the strategy for carrying out the work of identifying the projects, test beds and organizations relevant to E2. The report summarizes the more detailed information collected in a spread sheet, the current version of which is posted on Teamwork.

The methods of providing access to the information for E2 partners are also discussed.

## Strategy

### Purpose

A strategy is proposed for identifying the projects, test beds and organizations relevant to E2. The work of E2 will benefit from liaison with other projects and test beds having related aims, therefore links need to be formed with these activities and with relevant organizations.

It is important to develop liaison with related projects and test beds, as well as relevant organizations and agencies within and outside the EU. This will allow lessons to be learned from the experience of others and avoid duplication of work already carried out.

This strategy will be developed and maintained through review meetings and conferences, together with the collaboration forums identified in this report, that provide an opportunity to identify other projects and organizations relevant to E2.

### Timetable

Deliverable D 1.4: Report on relevant ongoing external projects and test beds, including this strategy, produced by the end of October 2015.

The information on projects, test beds and organizations will be provided to E2 Partners and other interested parties, from November 2015. The tracking tool, in the form of an Excel spread sheet, will be maintained throughout the life of the project and the current version will be posted on Teamwork.

The identification of projects, test beds and organizations relevant to E2 should be mostly completed by December 2015, although the list will be kept under review throughout the project. The inter-relationships between E2 and other projects and organizations will be mapped and links will be established with those entities by December 2015.

Other ways of making the information available will also be investigated, for implementation early in 2016.

# Projects and Test Beds

## Projects/Test Beds (completed)

**EfficienSea** - e-navigation, Competences and Recruitment challenges, Vessel traffic data & Maritime planning, Dynamic Risk Management 2010-2012

**MEH** (Malacca Straits) - Precision navigation on which relevant maritime and environmental systems would be integrated with the ENC-ECDIS as the geospatial platform. 2010-2012

**ACCSEAS** - developed and implemented an innovative e-Navigation Test-bed to prototype key concept solutions to advance shipping accessibility in the North Sea Region 2012-2015

**Mona Lisa** - Motorways of the Sea project which aims at giving a concrete contribution to the efficient, safe and environmentally friendly maritime transport 2010-2013

**ARIADNA** - aimed to optimize the use of maritime and inland infrastructures to manage the increase in traffic density and improve safety based on the volumetric navigation concept 2010-2013

**E-FREIGHT** - Creating the appropriate framework to allow tracing goods in real time, ensure intermodal liability and promote clean freight transport 2010-2013

**FLAGSHIP** - improvement of safety, environmental friendliness and competitiveness of European maritime transport 2010-2011

**SKEMA** - establish a Sustainable Knowledge Platform to be used by policy makers and stakeholder groups in the European Maritime and Logistics Industry 2010-2011

**MARNIS** - an integrated approach to Information Management for Maritime Safety Security & Environmental Risk Management 20004-2008

**IONO** (Ionian Integrated Marine Observatory) - designing and implementing an "IONian Integrated marine Observatory" that will provide environmental information and meteo-oceanographic measurements about the Southern Adriatic and Northern Ionian (SANI) Program Area 2012-2013

## Projects/Test Beds (ongoing)

**MUNIN** - The object of investigation is the autonomous vessel, with the aim to improve competitiveness of operation. 2012-2015

**Mona Lisa 2.0** - Improved safety, environment and efficiency. Industry tool to avoid incidents and better handle the ones that occur 2013-2015

**STM Validation** - Sea Traffic Management, as conceptualized in MONALISA 2.0, explores alternatives to centralized Traffic Coordination 2015-2018

**Torres Straits/GBR NE Shipping Management Plan** - The plan contains proposed measures to manage future increases in shipping traffic, ensure the safety of shipping and the prevention of ship sourced pollution and other environmental impacts in the Great Barrier Reef, Torres Strait and Coral Sea regions. ongoing

**Great Lakes/St Lawrence Seaway System** - The Draught Information System is a necessary component required for developing "e-Navigation" that will increase the safety of navigation providing the mariner with better information about under keel clearance 2010-2015

**Dublin Bay Digital Diamond** - A demonstrator project for the Dublin Bay area, providing an opportunity the maritime sector to explore the potential of e-Navigation services. 2013-2015

**eMIR** (e-Maritime Integrated Research) - offers a service oriented research infrastructure consisting of a physical test bed for in situ experiments as well as a simulation environment for risk and efficiency assessments 2013-2023

**EUCISE2020** - Aims at achieving pre-operational Information Sharing between the maritime authorities of the European States. 2015-2017

**Sesame Strait** - developing and validating a new Ship Traffic Management System concept to optimize sea traffic flow and provide the vessel with advice on the best speed and route 2014 – 2017

**e-Yangshan Port** - Improved navigational safety in poor visibility, by providing comprehensive, timely, reliable and efficient navigation information and facilities for vessels 2014-2016

**Polarice** - develop the next generation of operational sea ice monitoring services to support a range of activities in the Arctic and Antarctic 2014-2016

**SSAP** (Smart Ship Application Platform) - design a master database, interface prototypes, specifications of communication system between ships and shore facilities and international standards of data server requirements, to help application services 2014-2017

**WINMOS** (Winter Navigation Motorways of the Sea) - project is developing winter navigation operations including making information about icebreaking operations easily available for all stakeholders concerned by winter navigation. 2012-2015

**e-SENS** (Electronic Simple European Networked Services) - project is developing generic and re-usable solutions to support cross-border electronic services (e.g. e-Delivery, e-Documents, e-Signature, e-Identity, Semantics). 2013-2016

**ENSI** (Enhanced Navigation Support Information) - project is a test bed for a two-way electronic navigation service to increase vessel traffic safety in the Gulf of Finland. 2015-

**ESABALT** (Enhanced Situational Awareness to Improve Maritime Safety in the Baltic) - to study the feasibility of implementing a software platform for maritime information crowdsourcing in order to enable cross-border cross-sector cooperation, enhanced maritime safety, security, environmental monitoring and emergency response in the entire Baltic Sea region. 2014-2016

**BONUS PROJECTS** Implementation 3 years, during 2015-2018

BALTCOAST A systems approach framework for coastal research and management in the Baltic

BALTICAPP Wellbeing from the Baltic Sea - applications combining natural science and economics

BALTSPACE Towards sustainable governance of Baltic marine space

GO4BALTIC Coherent policies and governance of the Baltic Sea

GOHERR Integrated governance of Baltic herring and salmon stocks

MIRACLE Mediating integrated actions for sustainable ecosystem services in a changing climate	
SHEBA Sustainable shipping and environment in the Baltic Sea	
STORMWINDS Strategic and operational risk management for wintertime maritime transportation system	
SMART-Nav	(incomplete information)
Baltic web	(incomplete information)
Port Information Exchange	(incomplete information)
<b>Projects/Test Beds (planned)</b>	
Chile/Argentina	(incomplete information)
Global e-Navigation test bed (ROK/DK/SWE)	(incomplete information)

## EU Agencies & Directorates

**EMSA** - European Maritime Safety Agency - operational tasks in the field of oil pollution response, vessel monitoring and in long range identification and tracking of vessels

**ESA** - European Space Agency - responsible for setting a unified space and related industrial policy, recommending space objectives to the member states, and integrating national programs like satellite development, into the European program

**EEA** - European Environment Agency - provides independent information on the environment, helping those involved in developing, adopting, implementing and evaluating environmental policy.

**GSA** - European GNSS Agency - Designing and enabling services that respond to user needs, while continuously improving the European GNSS services and Infrastructure.

**INEA** - Innovation & Networks Executive Agency - the successor of the Trans-European Transport Network, INEA's main objective is to increase the efficiency of the technical and financial management of the programmes it manages.

**DG Mare** (Maritime Affairs & Fisheries) - manages two policy areas: Common Fisheries Policy and Integrated Maritime Policy (including Maritime Spatial planning).

**DG Move** (Mobility and Transport) - manages the policy for trans-European networks in the transport sector (TEN-T).

**DG Research & Innovation** - The Directorate-General for Research and Innovation defines and implements European Research and Innovation (R&I) policy with a view to achieving the goals of the Europe 2020 strategy and its key flagship initiative, the Innovation Union.

**DG Connect** (Communications Networks, Content and Technology) – aligns the work of the DG with key EU policies for the coming decade: ensuring that digital technologies can help deliver the growth which the EU needs.

**DG Regio** – Directorate General Regional Policy. Provides support for innovation and R&D by promoting greater inventiveness and improving reactivity to changing market conditions and consumer preferences.

**EUSBR** - E2 is a Flagship project under the EU Strategy for the Baltic Sea Region

### Agency projects

ESA ARTES 1 VDE System study	2015-2016
ESA ARTES 5.1 VDE-SAT downlink	2015-2017
ESA ARTES 5.1 VDE-SAT user term	2015-2017

## Non-EU Bodies

**EMPA** – European Maritime Pilots Association

**IAPH** – International Association of Ports and Harbors

**ECSA** – European Chambers of Shipping Association

**CESMA** - Confederation of European Shipmasters' Associations

**BIMCO** – Baltic and International Maritime Council

**NI** - Nautical Institute

Note: some of these are represented on the E2 High Level User Group

## Collaboration Forums

IALA Seminar on Maritime Digital Infrastructure and Testbeds, Gothenburg Nov 2015

IALA Workshop on Development of VDES, Tokyo Feb 2016

IALA Workshop on Shore-based Maritime Services, Lisbon May 2016

Maritime Cloud Development Forum

e-Navigation Underway International, February 2016

## Access Options

An objective of Task 1.2 is to make the required information on related projects, test beds and organizations available to E2 partners in an easily accessible form. The spread sheet used as an information tracking tool is not ideal for this purpose, although it will continue to be updated and posted on Teamwork.

One way to improve the provision of information will be to post it on Teamwork in a more easily readable form, say as a Word document. This can be done in the short term. A longer term option will be to post it as pages on a website accessible to E2 partners, probably the E2 website, which can



also be accessed via a link from other sites. A procedure will be needed for updating the website whenever the spread sheet is changed.

## Next steps

The information collated in this report will be made available to E2 partners and other interested parties from early November. Priority will be given to completing the identification of projects, test beds and organizations relevant to E2, together with associated information describing the projects and their relationship with E2. A matrix will be produced for the projects and organizations, showing the topics in common with E2, so that those with shared interests can be identified, making reference to the list of services shown in the project application (Table 1.1). Contacts will then be established with all the relevant entities and the contact points included in the information provided to E2 members and other interested parties.

The further options for improved information access will be considered in consultation with other E2 partners and the selected solution will be implemented early in 2016.

