Introduction

The aim of this document is to give an update on the implementation of the MONALISA project. The report is a result of the meeting of the project coordination group, which was held on May 11th, 2012.

Activity 1 - Dynamic & Proactive Route planning

A concept paper of Dynamic & Proactive Route planning was completed in the end of November 2011 and is available on the project website.

Focus has been on route planning and how to solve the technical problems connected to that issue. The first seaborne hardware with operating software has been developed and was presented at the European Maritime Day 21-22 May 2012 in Gothenburg. The first simulated transmission between ship and shore with route-updating procedure has been performed successfully in early January 2012. The first standard operational procedure plans have been prepared.

Cooperation has been established with the Baltic Hubs & Spokes MoS project, in which the ports of Gothenburg, Århus and Tallinn are partners. Contacts have been established with the Swedish ports Gothenburg, Stockholm, Åhus and Norrköping. A study is now carried out on how to integrate port information in the MONALISA concept. This has shown to be a critical issue.

A comprehensive study on the regulatory framework, especially IMO regulations and UNCLOS, has been initiated and a socio-economic analysis will start in Q3 2012.

An ambitious dialogue has been kept with different stakeholders. The Dynamic and Proactive Routeplanning concept has been presented in a large number of fora since the start of MONALISA. Close cooperation has been established with WWF (World Wildlife Foundation) that assist the project with maritime spatial planning information. An API (Application Programming Interface) connection has been established with the HELCOM server over biodiversity areas. WWF has also commissioned a study on improvements of environmental effects with dynamic & proactive route planning.

Also the Swedish Meteorological and Hydrological Institute (SMHI) has joined the project to serve the system with meteorological information. The Swedish Civil Aviation Authority has also joined the project to assist with their experiences from EU-funded SESAR programme.
MONALISA will also be presented at the IMO NAV 58 meeting in July 2012. A second movie presenting the Dynamic and Proactive Route planning concept and the Verification System for Officers Certificates in more detail has been prepared and shown at different relevant conferences. The movie is also available on the website of the MONALISA project.

As a result of the increased interest in the Dynamic & proactive route planning concept, discussions with different stakeholders have been initiated in order to extend the test bed of MONALISA to also cover the Mediterranean Sea. One key partner in these extended tests will be the world's largest cruise shipping company Carnival Corporation.

**Activity 2 - Verification System for Officers Certificates**

A study on the current situation is underway and is proceeding according to plan. Background studies have been prepared and this part of the Activity will close this summer.

Studies on fatigue related to the project are planned to start as soon as the background report is finalised.

A concept description of the Verification System is under way.

A result dissemination seminar was organized on the 20th of April 2012 in Gothenburg. At the seminar, the results of the Participatory Action Research Study regarding human factor elements were presented. The target group of the workshops was representatives of shipowners Associations, officers from shipping companies, authorities (coast guard, police etc), labour organisations etc.

Study on legal and liability issues has not yet commenced, but will be started in Q3 2012. Personnel is allocated for the task.

Development of hardware/software has not yet started since other activities have been prioritized. However, the development will start in Q3 2012.

In the extended test bed, planned for the Dynamic and Proactive Route planning concept, testing of the verification system will also be included.
Activity 3 - Ensuring the Quality of Hydrographic Data on Shipping Routes and Areas

Subactivity 3.1  Speed up re-surveys

The procurement for Bothnian Sea Survey 2011 was finalised in spring 2011. Contracts were signed on 13 April 2011 with Fugro OSAE GmbH for both the Finnish Transport Agency and the Swedish Maritime Administration and the hydrographic surveys commenced in May 2011. The external contractor was not able to cover all survey areas in 2011. The Finnish EEZ areas were completed in early April 2012 (covering appr. 8 470 km²) and the Swedish EEZ areas are estimated to be completed in July 2012 (covering appr. 4 610 km²). A continues dialogue is held with the contractor in order to ensure a minimum of delay and ensure necessary quality of the delivered results. Related HELCOM areas on Swedish and Finnish territorial waters are in parallel surveyed by state-owned resources.

The co-operation of the Finnish and Swedish administrations has been successful and fruitful. Contracted surveys have been done based on common requirements and reference level.

In parallel with the surveys in the Sea of Bothnia, planning of the hydrographic surveys in the Bay of Bothnia and some additional areas in the Sea of Bothnia and Northern Baltic Sea for years 2012 and 2013 started in August 2011. The public procurement of external contracts has now been finalised and contracts have been signed in May 2012. The contracted areas amount about 8 800 km² in Finland and about 14 700 km² in Sweden.

Progress reports have been presented at meetings of HELCOM Maritime, Baltic Sea Hydrographic Commission, Nordic Hydrographic Commission and of the International Steering Group of Priority Area 13 – Maritime Safety and Security – of the Baltic Sea Strategy.
Subactivity 3.2  Baltic Sea Depths Data model

In order to prepare for the development of a Depths Data Model for the Baltic Sea Region, a workshop was held in Norrköping on 11-12 October 2011 with participants from most of the Baltic Sea countries.

In the sub-activity, the following progress can be reported:

- Procurement of GIS and technical consultants has been made based on existing Framework agreements with the Swedish Maritime Administration for up to 4 000 h of working time until 2013.
- A meeting has been held at the Stockholm University, which are very advanced in this area of work, in December 2011 to gather more information regarding their methods for creation of large scale bathymetric models.
- A number of project meetings have been held with the contracted consultants.
- Technical investigations has been made to find alternative technical solutions to handle the data harvesting, refining, presentation and distribution prior to start of implementation.

Subactivity 3.3  Harmonized vertical reference

To be able to present a proposal for a harmonised vertical reference for the Baltic Sea area, the following actions has been taken:

- Planning Workshop was held on 29 August 2011 in Norrköping, Sweden.
- Progress report at BSHC 16th Conference 19-21 September 2011 in Norrköping Sweden
- Participated to INSPIRE Evaluation meeting on 5–7 December 2011 in Ispra, Italy
- Cooperation with IHO Tidal and Water Level Working Group
Activity 4 - Global Sharing of Maritime Information (GSMI)

Three sub-activities were planned to commence in 2011: Analysis and design, System development and promotion and marketing. All three sub-activities were commenced in 2011 as planned.

The first sub-activity, Analysis and design, was finalised in 2011, according to plan. However, it was foreseen that it would be necessary to reopen this activity at a later stage. This is in line with the chosen agile development methodology which should ensure close conformance to those functional requirements which may change during the lifetime of the project.

The Analysis and design sub-activity was reopened early in 2012 in order to augment the data security and integrity requirements. These aspects are important for those data owners who are willing to share their data with others, but need to have some degree of control over the destiny of their data.

The second sub-activity, System development, commenced as planned in 2011, and a working prototype of the so-called universal proxy was developed by the end of 2011. Further development of the prototype has taken place in the first part of 2012, and testing of basic functions will take place before summer holidays 2012.

The third sub-activity, Promotion and marketing, also commenced as planned in Q3 2011. The basic concept on Global Sharing of Maritime Information was presented at the IALA workshop in September 2011. The participation in the workshop served as promotion for the concept. In 2012 the concept will be promoted within the framework of the overall promotion of the MONALISA project.
MONALISA – Basic Facts:

- Project Budget: 22.4 M€
- EU grant from TEN-T: 11.2 M€
- Lead Partner: Swedish Maritime Administration
- Website: www.monalisaproject.eu

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