Introduction

The aim of this document is to give an update on the implementation of the MONALISA project.

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 now been transferred from development of concept design and system development to testing and validating of the concept. 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. The first tests of the concept on board the Swedish working vessel Fyrbyggaren will be carried out in the end of 2012. The first tests onboard commercial vessels are planned to start in Spring 2013.

A study is now carried out on how to integrate port information in the MONALISA concept. This has shown to be a critical issue.

Comprehensive studies on the regulatory framework, especially IMO regulations and UNCLOS, as well as a socio-economic analysis, are ongoing. The legal study will be presented in Q2 2013 and the socio-economic study in Q3 2013.

An ambitious dialogue is kept with different stakeholders. The Dynamic and Proactive Route planning concept has been presented in a large number of fora since the start of MONALISA. MONALISA was presented at the IMO NAV 58 meeting in July 2012 and at IALA VTS Symposium in Istanbul in September 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.

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.

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. The extended tests will be included in the Motorways of the Sea project MONALISA 2.0, which is currently in the phase of preparation.

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

A study on the current situation will be finalized in October 2012 and will be published at the project website. Background studies have been prepared and this part of the Activity will close this summer.

Studies on fatigue related to the project are initiated.

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 been started.

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 Bothnian Sea Survey 2011 was completed this summer/fall 2012, delayed for months, but completed about 8 500 km² for Finland and about 4 600 km² for Sweden.

New contracts for the Finnish Transport Agency survey work in the Gulf of Bothnia and Northern Baltic Proper for Finnish EEZ were signed in 2012 with the Swedish Company Marin Mätteknik and for Finnish territorial sea area with the German company Fugro OSAE GmbH. The Finnish company Meritaito Oy will provide some work based on 2012 SGEI-service order. These all will value about M€ 5.2 and cover about 10 000 km².

Swedish Maritime Administration has also signed contracts with Fugro OSAE GmbH and Marin Mätteknik for hydrographic survey work in Swedish waters 2012 covering appr. 8 800 km² and valued about M€ 4.1. SMA will also perform some surveys with own resources.

These new contracts are to be completed in August / September 2013, which can be challenging for the contractors due to some late start.

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, planning of the hydrographic surveys for years 2014-2020 shall be started, as there is a need to finalize the HELCOM route surveys to ensure Safety of Navigation and to meet the objectives of HELCOM.

Progress reports have been presented at meetings of HELCOM Maritime, Baltic Sea Hydrographic Commission (BSHC), Nordic Hydrographic Commission (NHC) 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

The development of a Depths Data Model for the Baltic Sea Region has progressed slowly. Two workshops have taken place, in Norrköping, October 2011 and in Helsinki, June 2012, with participants from most of the Baltic Sea countries, 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, along with discussion with the Stockholm University. First model of a “portal” and a plan for implementation was presented at the BSHC Chart Datum WG meeting in Helsinki, August 28-30, 2012 and further to BSHC 17 meeting on 18.-20.9.2012.
- INSPIRE directive sets timetable and actions to the sub-activity, as all Hydrographic Offices shall provide common national spatial data within national services (as directed on INSPIRE). Schedule due 15.12.2012.
- A pilot project on common depth data generalization rules on Finnish and Swedish chart data will commence in 2013.

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:

- A joint meeting with BSHC (Baltic Sea Hydrographic Commission) Chart Datum Working Group in Norrköping August 2011 and in Helsinki in August 2012.
- Progress report at BSHC 16th Conference 19-21 September 2011 in Norrköping Sweden and report to BSHC 17th Conference 18-20 September 2012, Helsinki, Finland. All Baltic Sea countries will report during 2012 in writing their plan to start using a common vertical reference.
- Participated to INSPIRE Evaluation meetings in 2011 and 2012.
- Cooperation with IHO Tidal and Water Level Working Group, report in Capetown meeting in May 2012, next meeting in Helsinki, May 2013.
- Study on effects of vertical reference change with Pilots;

Slow progress due to lack of expertise resources (other tasks have priority) in national Hydrographic Offices.
Activity 4 - Global Sharing of Maritime Information (GSMI)

The first sub-activity, Analysis and design, was finalised in 2011, according to plan. However, it was foreseen that it would be necessary to re-open 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 re-opened 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 started 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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