Preparatory Actions for European Marine Observation and Data Network

SECOND PROGRESS REPORT FOR THE PERIOD AUGUST – SEPTEMBER 2009

Service Contract No. "MARE/2008/03 - Lot 1 Hydrography – SI2.531515"

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1. INTRODUCTION

EMODNET (European Marine Observation and Data Network) is a contribution to the EU Integrated Maritime Policy. Currently there are 5 Lots (pilots) under development. This progress report nr 2 gives an overview of the activities undertaken for the Hydrography Lot during the months August and September 2009. Due to the holiday period no considerable progress was made.

The EMODNET Hydrography pilot has officially started 29th May 2009, so the first important contractual milestone will be 29th May 2010. At that date the proto-type EMODNET Hydrographic portal must be operational and serving out a number of hydrographic data products and metadata, describing the background data sets, that were used for the making of the data products. The data products will also be provided as data layers to the European Atlas of the Seas and to the European broad-scale seabed habitat mapping project.

2. PROGRESS REPORT AND ACTIONS

Following the technical annex of the original tender proposal and the action list as agreed at the kick-off meeting end June 2009 further project progress has been made in this period. A concise report of activities and progress is given below.

- **Website, extranet and dissemination**

MARIS as coordinator has undertaken initial activities with the EMODNET Hydrography **website**, that will be set-up at http://www.emodnet-hydrography.eu. Partners were requested to gather and send images.

The **Extranet**, which was set up already in July 2009**, is already actively in use to** give partners an archive of all contract documents and project documents. Each partner has his/her personal log-in. Furthermore use is made of the **projectgroup@emodnet-hydrography.eu** mailing list, which includes all partners. Only included partners can write to this list, which then distributes their message to all partners.

Action: MARIS will further develop the website.

Action: MARIS will prepare a leaflet, once the website is open.

Action: MARIS awaits the logo design activities of the EU and will incorporate the official logo, once available from the EU.

MARIS has participated in the GEBCO Bathymetric Science Day that was held in September 2009 in Brest – France to inform GEBCO members (incl HO's) about the EMODNET Hydrography project and to seek good cooperation. The presentation is included in the Extranet. As an outcome GEBCO has decided to initiate a new committee, that is going to establish a metadata format and directory for datasets, of use for GEBCO. It is agreed that our group can contribute through e.g. IFREMER and SHOM by bringing in the CDI V1 ISO 19139 format, that we are finalising. That way GEBCO might validate and adopt the same format and approach, which is in our favor for the longer term.

Upon request MARIS has received an official letter of the EU with permission that we can publish about the project without each time written consent from the EU as included now in the EU contract articles. This letter is included in the Extranet.

- **Contractual arrangements**

The draft **Consortium Agreement** that includes arrangements for a.o. the project partnership, the budget division, and the payment schedule, prepared by MARIS, is under review by all partners and various suggestions / corrections have been received, that are incorporated.

Action: MARIS is finalising the draft into a final Consortium Agreement, which is acceptable to all partners and that will be signed by all partners.

Action: MARIS will distribute the financial shares per partner, following the Consortium Agreement finalisation.

- **Mapping boundaries and basis**

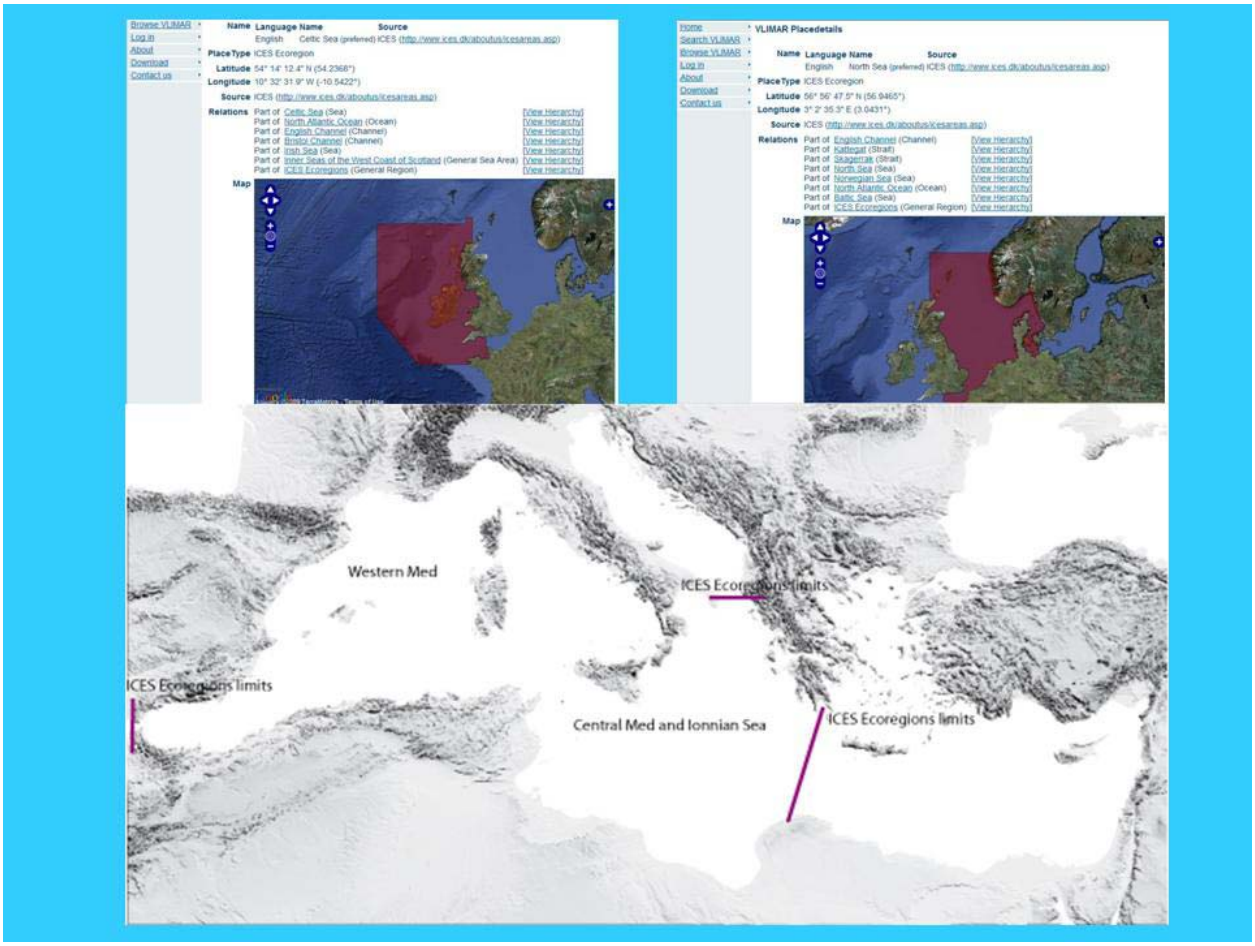
It is agreed that the portal will deliver un-projected maps (in WGS84 datum) for the GIS layers. The user interface can have functionality to present it in different projections. The horizontal shift up to ETRS89 datum could be in the order of centimeters to some decimetres, which is highly irrelevant for marine & ocean applications.

The hydrographic data will concern the following geographical regions:

- the Greater North Sea, including the Kattegat and stretches of water such as Fair Isle, Cromarty, Forth, Forties,Dover, Wight, and Portland. (taskleader Atlis)
- the English Channel and Celtic Seas. (taskleader NERC-NOCS)
- Western Mediterranean, the Ionian Sea and the Central Mediterranean Sea (taskleader IFREMER)

The Marine Strategy Framework Directive's Marine Regions will be largely based on the ICES Ecoregions. Following discussion in the MODEG group it has been agreed with the EU in September 2009 to adopt these boundaries, supplemented by EEZs (where they extend beyond ICES ecoregions). These boundaries are documented by VLIZ and made available in the VLIMAR website with the VLIZ Marine Gazetteer. This gives the boundaries of the EMODNET sea regions. E.g. the North Sea boundaries can be found at: http://www.vliz.be/vmdcdata/vlimar/vlimar.php?p=details&id=22165

The following image gives an overview of the relevant areas and boundaries for the Hydrography Lot.



It is agreed by the partners to schematise the DTM coverages as rectangles, that will at least cover the regions as given above.

- **Data products to be delivered and workflow**

Contractually the following geographical information system layers must be produced and provided to users:

- water depth in gridded form over whole of maritime basin on a grid of at least quarter a minute of longitude and latitude.
- water depth in vector form with isobaths at a scale of at least one to one million.
- depth profiles along tracklines
- multibeam surveys along tracklines
- coastlines
- underwater features – wrecks, seabed obstructions etc

It is accepted that the accuracy and precision of the gridded data will vary over the basins in question. No new data will be collected specifically for this project. The aim is to provide access to data from existing monitoring programmes. The data products and related metadata will be made freely available for all users without any restriction or registration. However for access to the background data the SeaDataNet data policy and CDI access mechanism will be applied. This includes respecting the data policies and access restrictions of the background data owners.

IFREMER and NERC-NOCS have started with analysing the list of data products, to be delivered, and making a proposal about the practical translation and specifications of the deliverables. E.g. this includes a specification of the overall to be applied gridsize, vertical datum (LAT?), chart datum (WGS'84?) and scale and source(s) of coastlines. It also includes the definition of possible pilot areas with higher resolution as demonstrators. This will be integrated in a proposal for the QA / QC method to be applied for making the hydrographic data products from the background data sets and how to indicate the quality / confidence levels of the data products.

Action: IFREMER, NERC-NOCS and Atlis to progress with the QA/QC/DTM specifications document, so that partners can review a draft in October 2009.

- **Available data sets**

The making of the hydrographic data products will require as input background hydrographic data sets from Hydrographic Offices, and from the partner institutes. The Hydrographic Offices of Germany, Norway, Denmark, Netherlands and Belgium have agreed to provide data sets. Partly these might have to be purchased, partly these will be provided for free.

The regional taskmanagers have started with preparing an inventory of the data sets, that they already manage and that can be used for the DTM's production. IFREMER together with IEO and SHOM for the Mediterranean. NERC-NOCS together with GSI, IFREMER and SHOM for the Channel region and Atlis together with NERC-NOCS for the North Sea region.

Action: Partners to identify and gather relevant data sets and to prepare inventories for the regional task managers.

- **Metadata**

The SeaDataNet Common Data Index (CDI) V1 metadata format is the basis for the background survey metadata. It is necessary to upgrade the present format and Schema,

because at present only point data are supported and not tracks and polygons. This has to be done by MARIS together with the SeaDataNet Technical Task Team, that is governing the CDI format, and members of the EMODNET Hydrography project and the EU Geo-Seas project.

Action: MARIS undertakes action for upgrading the CDI V1 format to suit the metadata description of hydrographic data sets.

- **Portal – user interface - functionalities**

The portal will provide users with services to view and download data products and their catalogue (layers + product generation description). Therafter users can retrieve metadata about the surveys, that have been used for these data products as CDI entries. The metadata then includes info about the options for retrieving those individual datasets, by using the SeaDataNet CDI shopping mechanism.

Action: Atlis and MARIS will cooperate to draft specifications for the hydrography portal and the interaction with the SeaDataNet CDI service and the EMODNET Hydrography website.