

34 th NORTH SEA HYDROGRAPHIC COMMISSION MEETING
Online VTC
27 - 28 April 2021

Report of the Baltic Sea and North Sea Marine Spatial Data Infrastructures
Working Group
(BS-NSMSDIWG)



**BALTIC SEA
HYDROGRAPHIC
COMMISSION**



**NORTH SEA
HYDROGRAPHIC
COMMISSION**

The Baltic Sea and North Sea Marine Spatial Data Infrastructure Working Group (BS-NSMSDIWG) online meeting No. 8 took place August 24 - 25 2020.



MS from the North Sea Hydrographic Commission and the Baltic Sea Hydrographic Commission participated in the meeting

Focus area at the The Baltic Sea and North Sea Marine Spatial Data Infrastructure Working Group (BS-NSMSDIWG) online meeting No. 8.

Day 1:

- The national SDI cooperation
- INSPIRE
- EMODnet
- The framework for maritime spatial planning in Europe (MSP-directive)
- UN-GGIM Working Group on Marine Geospatial Information
- OGC Marine Domain Working Group
- S-121 for maritime limits and boundaries
- EMODnet Bathymetry

Day 2:

- Overview of the BSR MSP Data ESG work.
- Introduction to the Baltic MSP data services.
- (BASEMAPS, HELCOM Map and Data Service, EU MSP Technical Expert Group on Data for MSP.
- The EMODNET-MSP perspective and the new EU data strategy.
- Pan North and Baltic MSP project
- DigiTwin Northsea – MSP Challenges.



A new call for EMODnet bathymetry



- 41 collaborating European organizations

➤ Hydrographic Offices



➤ Research Institutes



➤ Small and medium-sized enterprises



**If interested contact SHOM =>
Thierry.Schmitt@shom.fr**



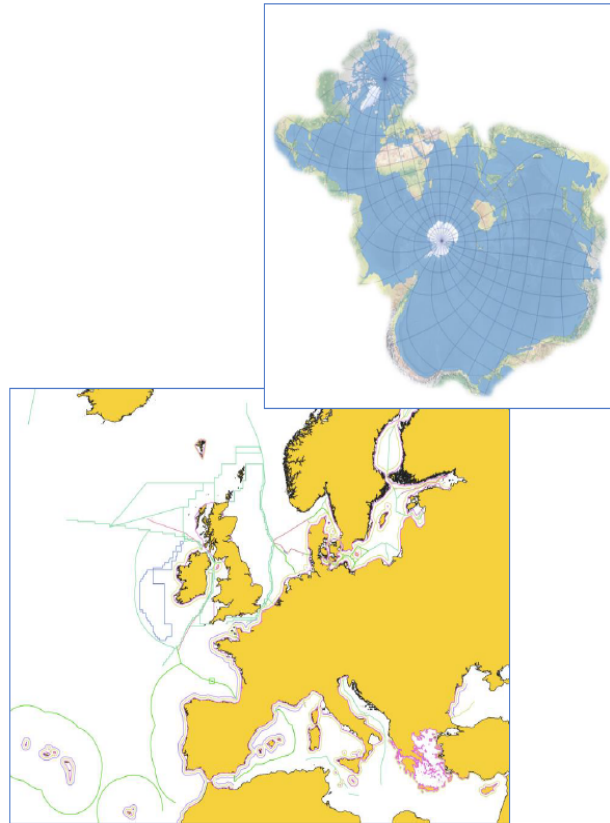
BATHYMETRY

Understanding the topography of the European seas

S-121. Maritime limits and boundaries

Why is this important - MSDI

- A regional MSDI must be built on a foundation of binding legislation within member states and treaties agreeing boundaries between them.
- Many MSDI activities partition human activity in the marine space
 - Marine Spatial Planning
 - Environmental agreements
 - Fishing Zones
 - Marine Cadastre
 - Energy Production
 - Maritime transport routes and traffic flows,
 - Military training areas,
 - Marine protected areas,
 - Scientific research,
 - Submarine cable and pipeline routes,
 - Tourism,
 - Underwater cultural heritage
- These activities ALL use Maritime Limits and Boundaries features as the foundation for their legal and spatial extents.
- S-121 provides a standard to hold and exchange this data



At the BSHC 25 meeting it was agreed that the BS-NSMSDIWG should investigate how the BSHC and NSHC could work with S-122 and if it was possible and desirable to establish at pilot project with the North Sea and Baltic Sea as an S-122 testbed.

HELCOM presentation



EU MSP Technical Expert Group on Data

- Established by **EASME** and **DG MARE** in 2020
 - Chair Andrej Abramic (ULPGC), co-chair Joni Kaitaranta (HELCOM)
- Tasks according to ToR
 1. Work across sea basins to identify the needs in the area of MSP data for implementation;
 2. Produce guidelines (not mandatory) on necessary data, standards for MSP and links this activities with other relevant policies (MSFD, INSPIRE, COPERNICUS, EMODnet, etc);
 3. Work on standard parameters that allows MSP plans to be harmonized across sea basin regions and across EU, if possible in line with the INSPIRE Directive;
 4. Assist in the production of a European portal containing information on MSP plans.
- Currently focus is on developing data format and vocabulary for “**MSP output data**” for the whole Europe (feeding into tasks 3 and 4)
- Group is organized to subgroup 1 (for Tasks 1-2) and subgroup 2 (for Tasks 3-4)

Baltic Marine Environment Protection Commission

To investigate the possibilities to establish a joint online meeting between the EU MSP Technical Expert group on data and the BS-NSMSDIWG in order to share information and to identify areas of cooperation

Pan North and Baltic MSP project

eMSP North & Baltic Seas 2030 project

ecosystem based approach, **e**lectronic, **e**ffective ocean governance, **eu** biodiversity & green deal, **e**conomic blue development, and **e**nhancing climate change management in **MSP**

An idea to discuss and take forward...



Lodewijk.abspoel@minienw.nl

9 July 2020 – adjusted following webex meeting 8 July

The BS-NSMSDIWG should follow the EU project eMSP in order to investigate possibilities for cooperation

Ambition of the call

Applicants are required to address the following priorities in their proposals:

1. Support the work of MSP competent authorities and/or inter-ministerial bodies in the establishment and adoption of [ecosystem based] maritime spatial plans;
2. Where relevant, support the development of cross-border cooperation on MSP with bordering Member States and third countries with a view to ensure that maritime spatial plans are coherent and coordinated across marine regions concerned;
3. Making use of the best available data and organise the sharing of information, necessary for maritime spatial plans, by using relevant mechanism and tools (e.g. INSPIRE, EMODNet).



BS-NSMSDI hackathon

BS-NSMSDIWG Marine SDI Hackathon

Use cases:

- Windfarm Siting
- Marine Protected Areas
- Fishery management

Time schedule

Use cases Requirements

- MSDI principles
- A cross-border approach (ref. MSFD, artikkel 13)
- A cross-domain approach
- Inter disciplines
- Based on authoritative sources
- EU MSP principles
 - land-sea interactions;
 - the ecosystem-based approach;
 - coherence between MSP and other processes such as integrated coastal management;
 - the involvement of stakeholders;
 - the use of best available data;
 - transboundary cooperation between Member States;
 - and cooperation with third countries
- NPA: https://www.emodnet.eu/sites/emodnet.eu/files/public/North_Sea/more_2103018-0101-01010101.pdf
- Ref. kap. 3

Additional information

- Tjenestebasert
- Bruk av statistikk / tidsserier
- Metadatastøtte
- Bruk av tidsdimensjon
- Aktiv bruk av attributter (filtering, osv)
- Lenking av informasjon

Questions/Evaluation

Deliverables:

Solutions

- Use of marine data
- Development of relevant tools
- Development of a visualization tool

Evaluation of MSDI principles

- Findable
- Accessible
- Interoperability
- Re-usable
- Quality of:
 - Metadata
 - Geospatial data
 - Web services
- General challenges
- Suggestions for improvements

Main resources

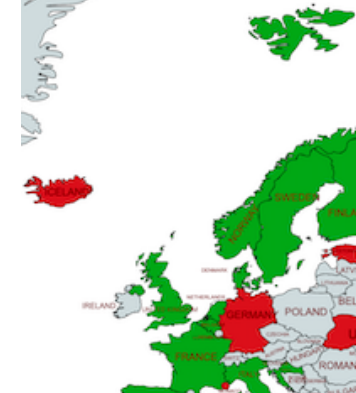
- National MSDI
- EMODnet
- INSPIRE
- HO-datasets (core data)
- Authoritative datasets

It was decided to continue the planning of a MSDI Hackathon but due to lack of resources it should be a small scale MSDI Hackathon with HO data and the possibility to cooperate with relevant university and/or stakeholders should be investigated as the possibility to have an online MSDI Hackathon.

Draft Work plan for BS-NSMSDIWG 2021 - 2024

Theme	Subject	Responsible action item
Task 1. Work item: Common understanding	<ul style="list-style-type: none"> - Establish a framework for common understanding of MSDI - The opportunities and challenges from a national and regional MS perspective - Definition of HO role in MSDI 	
Task 2. Work item: Liaison with external projects	<ul style="list-style-type: none"> - Identify relevant use cases for MSDI - Analyse the user need for relevant HO data set - Identify relevant EU projects and WG's with relevance for BS-NS MS 	
Task 3. Work item: S 100	<ul style="list-style-type: none"> - Conduct a study on visualization of S-100 datasets from a MSDI perspective (Non navigation) - Investigate the possibility to establish a regional S-121 testbed - Evaluate on how to promote S-100 in the Baltic and North Sea 	
Task 4. Work item INSPIRE	<ul style="list-style-type: none"> - Study on IHO standard S 57 in relation to INSPIRE - The difference between S 57 and S 100 - Identify the challenges with S-102 on interoperability with INSPIRE 	
Task 5. Work item: Hydrographic data and legal aspects	<ul style="list-style-type: none"> - Study on status on implementation and responsibility with relevance to MSDI in the Baltic and North Sea countries 	
Task 6. Work item: Pilot projects/demonstration	<ul style="list-style-type: none"> - Study on the possibility to establish BS-NSMSDI WEB pages - Demonstration project (e.g. S-121 testbed and use of BS-NS MSDI datasets) - WEB GIS demonstrator with BS-NS HO datasets 	





List of NSHC MSDI contact persons. (From IHO CI 56/2019. MARINE SPATIAL DATA INFRASTRUCTURES (MSDI) QUESTIONNAIRE)

Member State	MSDI established	Name of the organization responsible for the national MSDI:	Website of the organization responsible for the national MSDI:	Name of national MSDI contact point:	Email address of national MSDI contact point:	Name of the Hydrographic Office MSDI contact point:	Email of the Hydrographic Office MSDI contact point:	If available, please provide the website to the national MSDI:	Any other information:
Belgium	Yes	MDK - Coastal Division - Flemish Hydrography. The Flemish Hydrography is only responsible for the Hydrographic subjects of MSDI.	https://www.afdelingkust.be	Marc Roesbeke	marc.roesbeke@mow.vlaanderen.be	MDK - Coastal Division - Flemish Hydrography	marc.roesbeke@mow.vlaanderen.be	https://www.afdelingkust.be/en/bathymetric-database	
Denmark	Yes	Dansh Geodata Agency	www.gst.dk	Katrine Petersen	MSDI@gst.dk	Katrine Petersen	katpe@gst.dk	www.msdi.dk	
France	Yes	Existe plusieurs MSDI nationales et portails 1) portail data.shom : Shom 2) portail national des limites maritimes : Shom 3) geolittoral : CEREMA 4) Sextant : Ifremer 5) cartomer : l'OFB	1) https://www.shom.fr 2) https://www.shom.fr 3) https://www.cerema.fr/fr 4) https://wwz.ifremer.fr/ 5) http://www.aires-marines.fr			Dominique Carval	dominique.carval@shom.fr	1) https://www.shom.fr 2) https://www.shom.fr 3) https://www.cerema.fr/fr 4) https://wwz.ifremer.fr/ 5) http://www.aires-marines.fr	
Germany	No					Jens Schröder-Fürstenberg	Jens.Schroeder-Fuerstenberg@bsh.de		
Iceland	No					Árni Vésteinsson	Arni.Vesteinsson@lhg.is		
Ireland	?								
Netherlands	Yes	Geonovum; Netherlands Hydrographic Service; Informatiehuis Marien (IHM)	www.geonovum.nl ; www.hydro.nl ; www.informatiehuismarien.nl	Ellen Vos	info@hydro.nl	Ellen Vos	info@hydro.nl	www.nationaalgeoregister.nl https://www.geonorge.no/en/	
Norway	Yes	Norwegian Mapping Authority	https://www.kartverket.no/	Gerhard Heggebø	Gerhard.Heggebo@kartverket.no	Gerhard Heggebø	Gerhard.Heggebo@kartverket.no		
Sweden	Yes	Lantmäteriet (Swedish Land Survey Administration)	www.lm.se		geodatasekretariatet@lm.se	Annika Kindeberg	sma@sjofartsverket.se	www.geodata.se	
United Kingdom	Yes	UKHO	https://www.admiralty.co.uk/ukho/About-Us	James Carey	james.carey@ukho.gov.uk	James Carey	james.carey@ukho.gov.uk	https://data.admiralty.co.uk	This is the UKHO's ADMIRALTY Marine Data Portal where users can access data and services

OGC seeks sponsors for a cooperative OGC – IHO Federated Marine SDI Demonstration Pilot
New Pilot will demonstrate a multi-country, federated Marine Spatial Data Infrastructure for land/sea interface use-cases.



**Call For Sponsors: OGC – IHO Federated
Marine SDI Demonstration Pilot**

OGC[®]
ogc.org



Support for a joint OGC/IHO Pilot.

As recommended by the successful OGC-IHO MSDI Concept Development Study (CDS), and as evidenced by the success of the OGC-IHO collaboration in the on-going OGC-IHO Maritime Limits and Boundaries pilot, we are seeking support to initiate a full-scale Pilot to demonstrate a multi-country, federated MSDI under a land/sea boundary use case.

This Pilot will show how the value of MSDI can unlock data and information for use beyond traditional providers and consumers of hydrographic data, across borders, and across domains inclusive of improved connections between the terrestrial and marine foundational communities.

1. **Demonstration** - The demonstration will show how using OGC, IHO and other open standards, enables the community's ability to find, obtain, utilize, share, interoperate and reuse data.
2. **Impact on OGC Standards** - Lessons learned, gaps, and the need for changes to the OGC standards baseline, will be summarized in an Engineering Report which informs the OGC standard program.
3. **Impact on IHO Standards** - Practical testing of relevant S-100 based IHO standards helps accelerate the process for adoption and implementation of IHO standards. The engineering report helps to inform the work of the IHO HSSCs Working Groups and will provide inputs to those groups to enhance the framework and its component standards.

Sponsorship. The rough order of magnitude for sponsorship is USD 400,000, shared across multiple supporting sponsors.

When Would the Pilot Start?

The current plan is for the kick-off of the pilot in the second quarter of 2021, with the full Pilot being completed in 2022, subject to change based on sponsor requirements.

Contact for more Information.

Trevor Taylor (ttaylor@ogc.org) or Scott Simmons (ssimmons@ogc.org)



OPEN GEOSPATIAL CONSORTIUM (OGC)

Proposed Partnership with

INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)

Member States

OGC – IHO Federated Marine SDI Demonstration Pilot: FMSDI

Land/Sea Interface

Call for Support



Ocean Data Information and Services, - France

Our preliminary ideas about the scoop of DGA participation in the OGC – IHO Federated Marine SDI Demonstration Pilot

The Baltic Sea / North Sea as an S-100 test bed (In this part of the project, the DGA focus will be on the following main areas):

- Testing of various S-100 data sets relevant to MSDI and MSP, especially of S-122.
It has been decided that BS-NSMSDIWG should establish a pilot project for the Baltic Sea (and the North Sea?) where there will be special focus on testing S-122 data. It will also be relevant here to test other S-100 data sets
- Establishment of demonstration project regarding distribution of relevant S-100 data sets for the Baltic Sea and the North Sea for MSDI and MSP.
This part of the project fits well with the above BS-NSMSDIWG project but also with the work in DGA with to establish a future distribution solution.
- Climate change. The focus could be on how open standards and governance in connection with climate change can contribute to improved information sharing with international partners. *This part will be able to support the work on future climate initiatives and in that way support the DGA work program.*

Marine data in the Arctic (In this part of the project, the focus will be on the following areas):

- Establishment of demonstration project regarding. establishment of an Arctic MSDI
This is an area that ARHC including Denmark has worked with for several years and it is also something we focus on in the Danish Arctic strategy.
- Crowd source Bathymetry and the need for standards
This is expected to support the project regarding. Trusted CSB established together with Canada.
- Testing of various S-100 data sets relevant to maritime safety and environmental protection
- Climate change. Here, the focus will be on how open standards and governance in connection with climate change can contribute to improved information sharing with international partners.
This part will be able to support the work on future climate initiatives and in that way support the DGA work program.



Action requested of NSHC 34.

The NSHC 34 is invited to:

- a. Note the report;
- b. Approve the new draft work program 2021-2024
- c. Discuss whether the BS-NSMSDIWG also should investigate the possibilities to include the North Sea in the pilot project focusing on S-122 data as a testbed.
- e. Take any other action as appropriate.

