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

BALTIC SEA HYDROGRAPHIC COMMISSION

NS HC NORTH SEA HYDROGRAPHIC COMMISSION

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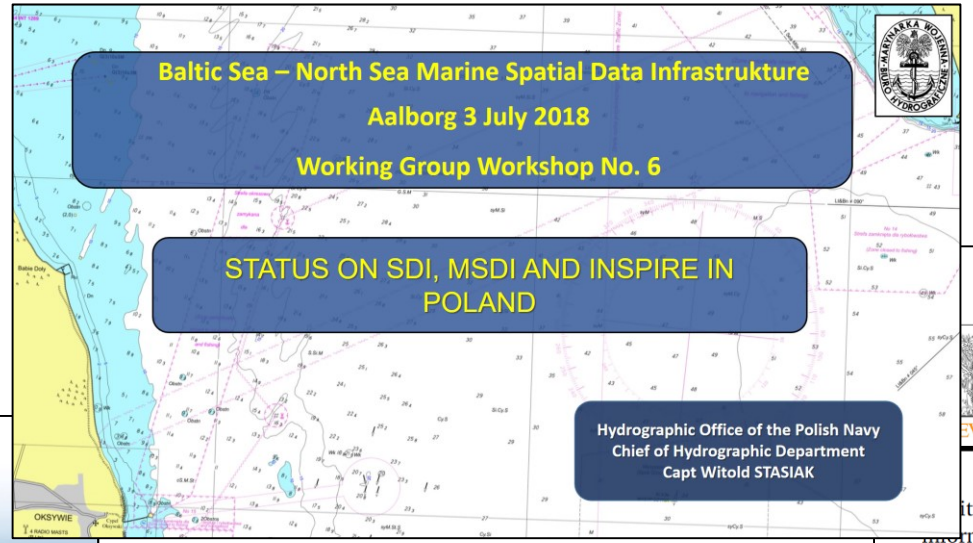
Baltic Sea- North Sea Marine Spatial Data Infrastructures Working Group
Workshop
Denmark 3 – 4 July 2018

The overall aim of the workshop was to create a common MSDI framework and to evaluate the BS-NS MSDI work plan for the Baltic Sea which focus on how the BSHC and NSHC can benefit from a regional approach to MSDI and to have a status on the different action items and agree how to proceed.

Theme	Subject	Responsible action item
Task 1. Work item: Common understanding	- 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	1
Task 2. Work item: Liaison with external projects	- Identify relevant use cases for MSDI - Analyse the user need for relevant HO data set	2,3,4,5,6,7,8,9
Task 3. Work item: S 100	- Conduct a study on S-102 from a MSDI perspective (Non navigation) - Evaluate on how to promote S-100 in the Baltic and North Sea	10,11,12
Task 4. Work item: INSPIRE	- 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	13,14,15
Task 5. Work item: Hydrographic data and legal aspect	- Study on status on implementation and responsibility with relevance to MSDI in the Baltic and North Sea countries	16
Task 6. Work item: Pilot projects/demonstration	- Study on the possibility to establish BS-NSMSDI WEB pages - Demonstration project - WEB GIS demonstrator with BS-NS HO datasets	17,18,19,20, 21



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itime spatial planning supported by infrastructure for spatial information in Europe (INSPIRE)

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ABSTRACT

The implementation of Directive 2007/2/EC - INSPIRE can improve and actually strengthen the information management and data infrastructures needed for setting up Maritime Spatial Planning (MSP) processes. Evidence for this comes from three parallel analyses: links between the MSP Framework Directive and INSPIRE components and implementation; the availability of marine and maritime data through the INSPIRE Geo-Portal; and the adequacy of using an INSPIRE data model for mapping maritime spatial plans. The first item identifies INSPIRE as a relevant instrument not only for data collection, but additionally for increasing transparency of the MSP processes, using already operational national and European data infrastructure. The marine/maritime data availability analysis highlights a significant difference in data sharing within European marine regions. Finally, the INSPIRE data model is adequate for mapping maritime activities and for the integration of sea and land planning in an overview of cross-border planning for a given sea region.

Please check Appendix 2 for definitions of the terminology used.

1. Introduction

Ancient sea maps have been traditionally populated by giant serpents and octopuses wrapped around ships, fierce-toothed animals clashing in the waves, deceivingly beautiful mermaids and a variety of other chimeric beings.[1] European map makers used such monstrosities to enchant viewers, but also to educate them about the dangers of the marine environment, dangers that could obstruct maritime activities like shipping, fishing or traveling. Sea monsters were not just mere playful illustrations, they were symbols trying to describe the main traits of a bizarre territory, made of a treacherous liquid element, and difficult to chart because of its featureless, and yet dynamical, nature (Ellis, 1994).

Sea monsters started to disappear from maritime maps at the end of the 17th century. As European understanding of the oceans and navigation advanced, more emphasis was placed on the ability of people to master the watery element, to sail on it and conduct trade on it. Illustrations still appeared on maps, but for more pragmatic reasons: drawings of ships indicated areas of safe passage, while whales or other creatures pointed to good fishing areas (Bagrow, 2010). Some of the mystery was now gone and the sea was becoming yet another cradle of natural resources, rather than a churning darkness to be feared. However, the sense of awe captured in the old maps lingers on, to this very day, as many dangers and obstacles to maritime endeavours are still with us.

Modern maps of marine regions are free of sea monsters, but do point to a set of problems which are difficult to solve. Today, the main obstacle to human activities at sea is primarily competition for maritime space. Moreover, an increasing hunger for the many resources still available in the sea is placing a heavy burden on the preservation of the marine ecological balance. A management effort is required (IOC, 2006; Ardron et al., 2008; Day, 2008; Douvere and Ehler, 2009; EC, 2010) to avoid potential conflicts and create synergies between different activities (Suarez de Vivero and Rodriguez Mateos, 2012; Brennan et al.,

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[1] See e.g. Olaus Magnus, *Carta marina et Descriptio septemtrionalium terrarum ac mirabilium rerum in eis contentarum, diligentissime elaborata Annon Domini 1539 Venecüs liberal itate Reverendissimi Domini Ieronimi Quirini*, published in Venezia (Venice?), 1539.

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Discussions at the workshop

Actions/tasks for the BSHC meeting:

- Investigate the possibility to arrange a MSDI workshop for the North Sea - and Baltic Sea Council. (Chair and Norway)
- If possible to arrange a MSDI workshop for the North Sea and Baltic Council. (Chair and Norway)
- To establish and conduct a survey about MSDI and MSP for the NS and BS MS about implementation, status and maturity. (Denmark)
- To investigate the possibility to establish a pilot project with the focus on availability/distribution of different S-100 datasets for other users. (Germany and Denmark)

Action items:

- To investigate the work on non vector AML and provide a paper to the next BS-NSMSDIWG (Netherlands)
- To establish a discussion paper on the basic MSDI principle (Norway)
- To create a discussion paper/presentation about data models from a MSDI perspective with regards to IHO, MSP and INSPIRE, S-57 and S-100 and the need for harmonization (Germany and Norway)
- The Netherlands to produce a inf. paper about Maritime spatial planning supported by infrastructure for spatial information in Europe (INSPIRE) and circulate it to the NS-BSMSDIWG for comments. After circulation it should be forwarded to EU-IHONWG
- Norway to produce a inf. paper on data quality and circulate it to the NS-BSMSDIWG for comments. After circulation it should be forwarded to EU-IHONWG

No.	MSDI Meeting/ Work Task	Action	Responsible	Deadline	Status *-Permanent* *-Done* *-Pending* *-Awaits*
14	2/2015 WT 4	Conduct a study from a technical approach to the INSPIRE elevation product specification.	Finland Norway	MSDIWG7	Ongoing
16	2/2015 WT 5	Investigate status on implementation and legal aspects of MSDI.	Denmark	MSDIWG7	Ongoing
20	2/2015 WT 6	To consider to initiate a study on how MS should/could present their services and data, including a BS and NS basic MSDI architecture	Finland Sweden	MSDIWG7	Ongoing
23	1/2016	To prepare a presentation about S-100.	Germany	MSDIWG7	Ongoing
24	1/2016	Investigate if the BS-NSMSDIWG should approach/deal with EMODnet in the future e.g. the possibility to invite EMODnet to a MSDIWG meeting	Norway	MSDIWG7	Moved to 47
27	1/2016	Investigate how to participate in the INSPIRE work with relation to hydrographic data	Norway	MSDIWG7	Moved to 48
28	1/2016	To investigate the different MSP initiatives and stakeholders in the North Sea with relevant to MSDI	Denmark	MSDIWG7	Ongoing
35	1/2016	To invite HELCOM and VASAB to the next BS-NSMSDIWG and to invite other relevant organisations e.g. North See, OSPAR, EURO GOOS, INSPIRE	Chair	MSDIWG7	Ongoing
36	1/2016	Poland to investigate if they can host the next MSDIWG7 meeting,	Poland	MSDIWG6	Done
39	1/2018	To investigate the possibility to arrange a MSDI workshop for the North Sea - and Baltic Sea Council. If approved. To arrange a MSDI workshop for the North Sea and Baltic Council.	Chair/Norway	MSDIWG7	Ongoing
40	1/2018	To establish and conduct a survey about MSDI and MSP for the NS and BS MS about implementation, status and maturity.	Denmark	MSDIWG7	Ongoing
41	1/2018	To investigate the possibility to establish a pilot project with the focus on availability/distribution of different S-100 datasets.	Germany and Denmark	MSDIWG7	Ongoing
42	1/2018	To investigate the work on non-vector AML and provide a paper to the next BS-NSMSDIWG	Netherlands	MSDIWG7	Ongoing
43	1/2018	To create a discussion paper/presentation about process data models from a MSDI perspective with regards to IHO, MSP and INSPIRE, S-57 and S-100 and the need for harmonization	Germany	MSDIWG7	Ongoing

Next meetings planned

The next meeting no 7 of the BS-NSMSDIWG is planned to take place in Poland at the Polish Hydrographic Offices in 2019 April or May.

All MS from BSHC and NSHC will be invited to participate in the meeting. It is planned to have a 3 day long MSDI work shop and to invite other relevant stakeholders and organizations e.g. North See, OSPAR, EURO GOOS, INSPIRE, HELCOM, VASAB to participate in a one day MSDI workshop.

The IHO - MARINE SPATIAL DATA INFRASTRUCTURE value chain

IHO → IRCC ⇄ MSDIWG

RHC (BSHC, NSHC, ARHC) ⇄ BS-NSMSDIWG

Arctic MSDIWG

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