

**Baltic Sea Hydrographic Commission – 19-Th conference,
Riga 10-12 June 2014**

**Report of Baltic Sea Marine Spatial Data Information Working Group
(BSMSDIWG)**

Submitted by:	Chair of BSMSDIWG, Denmark
Executive Summary:	This report reviews the work group's findings, status and the planned next steps.
Related Documents:	C-17 - Spatial Data Infrastructures: The Marine Dimension - Guidance for Hydrographic Offices
Related Projects:	IHO MSDIWG

Introduction / Background

The 18th International Hydrographic Conference confirmed the importance of marine spatial data infrastructure (MSDI) activities for the IHO and its Member States.

MSDI delivers the instruments for the enhanced scope of hydrographic information users. MSDI can create the framework for future provision of this information beyond the classic field of surface navigation. From an HO perspective, it is important that the IHO takes the lead in addressing MSDI matters for the maritime sphere through its MS; the MSDIWG is seen as an appropriate WG to deal with these opportunities.

BSMSDIWG meetings held during reporting period

The 2nd meeting of the Baltic Sea Marine Spatial Data Infrastructure Working Group (BSMSDIWG) took place in Copenhagen at the Danish Geodata Agency's premises.

The overall aim of the workshop was to create a common MSDI framework for the Baltic in order to establish a BSHC MSDI work plan for the Baltic Sea which should focus on how the BSHC can benefit from a regional approach to MSDI.

The workshop was divided in two parts in order to address how the BSHC can benefit from a regional approach to MSDI in the future. The first part contained a general presentation from IHO MSDIWG, national presentation from members on status on SDI, MSDI and INSPIRE and a presentation of the proposal for a directive of the European Parliament and of the Council on establishing a framework for maritime spatial planning and integrated coastal management. The second part focused on a questionnaire about national use of data, the response from MSHC18 about MSDI and the creation of a draft work plan.

Next meetings planned

The next meeting of the BSMSDIWG is planned to take place in the second half of 2014 in Germany.

BSMSDI Draft Work Programme

At the 2nd meeting of the Baltic Sea Marine Spatial Data Infrastructure Working Group, the work group established a draft work program. The work plan is divided in 7 work items and there are relevant milestones and coordinators for each item. The draft work program focuses on tasks that are foreseen to be important and challenging from a regional and a national perspective.

Draft BSMSDIWG work program:

Task	Work item	Milestones	Coordinator	Status
1	Hydrographic data and legal aspects	<ul style="list-style-type: none">- Study and definition on hydrographic data under the respect of INSPIRE and MSP.- Definition of HO role in MSDI- Paper on BSHC MS contribute with relation to MSDI- Study on different laws with relevance to MSDI in the Baltic countries	Latvia Denmark	
2	Liaison with external projects	<ul style="list-style-type: none">- Establish a list of MSDI relevant projects- Scanning of projects relevant for BSMSDI- Establishing a matrix with relevant projects	Germany	
3	S 100	<ul style="list-style-type: none">- Conduct a study on S 100- Evaluate on how to promote S 100 in the Baltic- Prepare paper to HSSC through BSHC- Evaluate the need for a pilot project	Germany Latvia	
4	INSPIRE	<ul style="list-style-type: none">- Study on IHO standard S 57 in relation to INSPIRE- Study on legal binding compared to INSPIRE- The difference between S 57 and S 100	Estonia	
5	MSP and IZM	<ul style="list-style-type: none">- Conduct a study on national approach to MSP- Prepare paper to HSSC through BSHC if needed- Evaluate the need for a pilot project	Denmark Latvia	
6	Common understanding	<ul style="list-style-type: none">- Establish a framework for common understanding of MSDI	Latvia	
7	Technical solutions in the Baltic	<ul style="list-style-type: none">- Study on the possibility to establish a BSHC metadata base- Study on MSDI impact on E-navigation and how MSDI can contribute to the implementation of E-navigation- Establishing use cases e.g. MSP, SAR, Environmental protection- Evaluate the need for updating BS MSDIWG ToR	Denmark Estonia Denmark	

IHO MSDIWG meetings Held During Reporting Period

The 5th meeting of the IHO Marine Spatial Data Infrastructure Working Group (MSDIWG) took place on 5 -7 February 2014 at Veterans Plaza, Silver Spring, Maryland USA. It was preceded on 4 February by an MSDI Open Forum. The aim was to reactivate IHO consideration of MSDI, to propose ways to facilitate MSDI in IHO and its Member States and to review the new draft work plan.

MSDI addresses, for the maritime domain, “the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data”. The key interest for the IHO is that MSDI provides a framework for the provision of hydrographic information beyond the traditional field of surface navigation.

Next meetings planned by IHO Marine Spatial Data Infrastructure Working Group (MSDIWG)

February 2015: MSDIWG Open Forum and MSDIWG 6th Meeting

Both events will be held in London UK. The WG meeting will include WG Work Plan task group break-out sessions.

All documents referred to above, including a revised draft agenda for MSDIWG-5 and a new Work Plan 2014-15 for the WG, have been posted on the IHO website. See http://www.iho.int/mtg_docs/com_wg/MSDIWG/MSDIWG5/MSDIWG5.htm.

MSDIWG Work Programme

At the 5th HSSC MEETING in Shanghai 5-8 November 2013, the report of the Marine Spatial Data Infrastructure Working Group was presented. HSSC-5 approved the adjusted Terms of Reference and the MSDI Work Plan. 7 MSDIWG Tasks are now established. The work program is attached as annex 1.

MSDIWG WORK PLAN 2014–15

MSDIWG Tasks:

A	Identify and promote national and regional best practices: - for land-sea integration - for cross-border integration
B	Review the appropriateness of existing standards for the provision of the maritime components of spatial data infrastructures
C	Develop content for an MSDI training course
D	Maintain MSDI reference documentation on the IHO website
E	Maintain and extend Publication IHO MSDI C-17 (IHO Task 2.9.2 refers)
F	Conduct annual meetings of MSDIWG, arranged back to back with 1-day MSDI Open Forum (IHO Task 2.9.1 refers)
G	Ensure that MSDI is a standing agenda item for RHCs’ meetings (IHO Res 2/1997, as amended, refers)

Analysis/Discussion

The IHO’s MSDIWG has published *C-17 - Spatial Data Infrastructures: The Marine Dimension - Guidance for Hydrographic Offices*, which outlines the benefits of developing spatial data infrastructures (SDIs) to reinforce coordination among maritime authorities.

At a time when SDIs are being developed worldwide at the national, regional and local levels, this approach to coordinated access to, and management of, geographic information has become a standard on land. However, as C-17 identifies, the integration of maritime data in SDIs has been limited at best, though there can be as many benefits to be gained by coordinated access to maritime information as to terrestrial data.

Progress on HSSC Action Items

Action HSSC4/32 is for MSDIWG4" to consider, within its work plan, the development of content for an "introduction to MSDI" training course".

This action is included in future work of the MSDIWG as stated in the work plan.

GGIM/FIG Conference held in Cambridge, UK in July 2013

In the proceedings of the above event, the report entitled "Critical issues relating to the integration of land and marine geospatial information" tabled by IHO and FIG and the supporting background document, authored by FIG, raises some important points in that the global GI community needs to:

- build and use common standards and frameworks to ensure interoperability
- enhance institutional arrangements and stakeholder collaborations
- improve returns on investment through better coordination, use and reuse of data, information and systems and to enhance innovation and productivity
- develop a legal framework to provide the institutional structure for data sharing, discovery, and access;
- positioning infrastructure to enable and benefit from satellite based positioning possibilities and reference systems;

The document also mentions C-17 and the work of both the MSDIWG thus far and the developments attained in the BSHC. However, none of these statements are new.

An important question to consider is whether IHO should take the lead and commission an advanced practical study into this very important area of interest? IHO President has repeatedly stated that the role of HO's is now far more than just charting. It has valuable data as its primary resource and must make that data available to a wider audience in order to drive "The Blue Economy" and all it signifies, in terms of economic and socio-economic development. MSDI would facilitate much of what can be achieved in this area.

Maritime spatial planning and integrated coastal management

EU has recently published a proposal for a directive of the European Parliament and of the Council dealing with establishing a framework for maritime spatial planning and integrated coastal management. A presentation of the directive is attached as annex 2.

The main purpose of the proposed directive is to promote the sustainable growth of maritime and coastal activities and the sustainable use of coastal and marine resources by establishing a framework for the effective implementation of maritime spatial planning in EU waters and integrated coastal management in the coastal areas of Member States.

The increasing and uncoordinated use of coastal and maritime areas results in competition for maritime and coastal space and inefficient and unsustainable use of marine and coastal resources.

Uncertainties and lack of predictability on appropriate access to the maritime space has created a suboptimal business climate for investors, with potential job losses.

The proposal establishes a framework for maritime spatial planning and integrated coastal management in the form of a systematic, coordinated, inclusive and trans-boundary approach to integrated maritime governance. It obliges Member States to carry out maritime spatial planning and integrated coastal management in accordance with national and international law. The aim of the action is for Member States to establish a process or processes that cover the full cycle of problem identification, information collection, planning, decision-making, management, monitoring of implementation, and stakeholder participation.

The maritime spatial plans and integrated coastal management strategies will not set new sectorial policy targets. They have the purpose to reflect, integrate and link the objectives defined by national or regional sectorial policies, to identify steps to prevent or alleviate conflicts between different sectors and to contribute to the achievement of the Union's objectives in marine and coastal related sectorial policies. Most importantly, the proposal requires Member State action to aim for coherence of management across sea basins, through trans-boundary cooperation in the same marine region or sub-region and related coastal zone and appropriate data collection and exchange.

Implementing acts will ensure consistent implementation of the Directive throughout the EU and facilitate reporting from the Member States to the Commission and, where relevant, the exchange of data between Member States and with the Commission. Article 10 in the proposed directive especially focuses on data collection and exchange of information. Article 12 and 13 describes Cooperation with other Member States and third countries.

As seen from a HO perspective a MSDI could support such varied activities as coastal zone management planning and maritime spatial planning including the management of energy production at sea, fishing, marine environmental protection and nature conservation, planning charts, navigation, civil and military preparedness, tourism, and maritime spatial planning.

Conclusions

There are growing needs for better coordination of individual authorities' management of maritime information. While a national single window can aid in the reporting process among maritime stakeholders, information flow among the authorities is also a critical factor for ensuring the effective and efficient coordination of their work.

An MSDI ensures that relevant maritime authorities can contribute their spatial information and related updates, and that this information can easily be collected with other information to generate a current, overall picture. As a result, MSDI can support such varied activities as coastal zone management planning of energy production at sea, fishing, marine environmental protection and nature conservation, planning charts, navigation, civil and military preparedness, tourism, and maritime spatial planning.

From a more practical approach there is a need to focus on and strengthen the maritime approach to MSDI and to insure that maritime information is included. Some of the challengers for BSHC MS in relation to MSDI are seen as:

- Ensure that Baltic HO have the possibility to contribute to the development of the Baltic MSDI
- Ensure the use of data/information provided by Baltic Sea HO

- Ensure that the Baltic Sea HO have the possibility to contribute in creation of an Baltic MSDI reference model - A reference model that represents the component parts of any consistent idea, from business functions to system components:
 - Rules and rights in relation to the use of vector data between countries
 - How do we establish a structure to support the Baltic SDI
 - The continues update of relevant data
 - The financial aspect.

As seen from a HO perspective, the MS now have a direct possibility to actively participate in the development of a well-functioning MSDI within the hydrographic domain and its surroundings with the possibility to benefit from a national and a regional approach and in that way take the lead in addressing Baltic MSDI matters for the Baltic countries.

Actions required from the BSHC 19 Conference:

The BSHC 19 Conference is invited to discuss the implication of MSDI from a HO perspective and how MS can benefit from a regional approach.

The BSHC 19 Conference is requested to consider this report and to take appropriate actions.

The BSHC 19 Conference is requested to approve the Draft BSMSDIWG work program: