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## **Re-Survey MWG Report to the BSHC 28<sup>th</sup> Conference in *Helsinki, Finland***

### **1. Status of the work of Re-Survey MWG since BSHC 27<sup>th</sup> conference Stockholm**

The main tasks for the MWG has been to encourage the member states to continue the up-to-date surveys of their waters and to continue to update and enhance the Re-Survey database. The communication within the MWG has been by e-mails and face-to face meeting.

At the HELCOM Ministerial meeting on 20 October 2021 the Commission adopted the updated HELCOM Baltic Sea Action Plan (BSAP). This is a remarkable milestone for BSHC, which now has the strong political commitment signed by Government representatives and the EU Commission.

BSAP sets a timeline for hydrographic surveying in the Baltic Sea. The work of MWG is not limited to seabed coverage for areas used by commercial shipping in the Baltic Sea. The aim is that the entire Baltic Sea will be surveyed according to IHO standards and with full seabed coverage.

### **2. Monitoring Working Group meetings**

The MWG 23<sup>rd</sup> meeting was scheduled to take place on 23 March 2022 but was suspended due to the BSHC Chair 1/2022 letter (dated 11.03.2022) and the MWG 23<sup>rd</sup> meeting was hosted by Finland on 16 March 2023.

### **3. The results of the MWG since BSHC27 (Sept 2022- July 2023)**

#### **Actions:**

BSHC 27th action BSHC26 / C.1 (Decided at meeting / Agenda item)  
BSHC26/5 (Orig. number in Items):

Continuously keep HELCOM Re-Survey Plan updated based on AIS information, and perform surveys in accordance with the Re-Survey Plan.

- The member states have reported their updated figures of progress of surveys on the MWG 23<sup>rd</sup> meeting:

HELCOM Survey statistics, spring 2023 [based on e-mails of member states spring 2023]					Completed field surveys and data verified					
Country	CAT I [~year compl]	Cat I area total / remaining [~km <sup>2</sup> ]	CAT II [~year compl]	Cat II area total / remaining [~km <sup>2</sup> ]	CAT I & II total [~km <sup>2</sup> ]	CAT III [~year compl]	Cat III area remaining [~km <sup>2</sup> ]	Cat III area total [~km <sup>2</sup> ]	statistics by	
Denmark	2013	7 631 / 0	2030	14582 / 3166	22 213	2033	10 244	10 925	03.3.2023	
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Finland	2016	22 321 / 0	2016	28 678 / 0	51 000	2040	21 700	31 077	31.12.2022	
Germany	2019	3 273 / 0	2025	12 127 / 0	15 400	not applic	-	-	7.8.2023	
Latvia	2015	2 461 / 0	2023	6 109 / 949	8 570	2045	18 838	19 133	31.12.2021	
Lithuania	2019	1 569 / 1	2026	1 823 / 671	3 400	2040	2 536	3 041	24.2.2023	
Poland	2023	3 782 / 965	2021	906 / 0	4688	2039	19 074	25 126	8.2.2023	
Russia	2018		2018		1 200	2017		22 204		
Sweden	2023	48 568 / 0	2023	69 302 / 2048	117 870	(*) 2036	35 557	(*) 47 393	31.12.2022	

(\*) SE has prioritized and categorized their Cat III areas (High/Medium/Low). Areas used for navigation completed 2036

BSHC 27th action BSHC26 / B.3.9 (Decided at meeting / Agenda item)  
BSHC26/3 (Orig. number in Items):

All MS to report possibility to contribute to Autonomous Survey Vessels related knowledge exchange to MWG Chair, and Sweden in cooperation with MWG Chair to arrange a workshop.

- ASV workshop held in conjunction with MWG23 meeting March 16 2023 at the Traficom office in Helsinki, Finland.
  - PL and SE each gave a presentation on their experiences from using Autonomous Survey Vessel (ASV).

PL has two ASV systems, both equipped with multibeam, the smaller Z-Boat 1800 for inland waterways surveys and the larger iXblue DriX for open sea areas.

SE has one ASV system, the smaller DeepCat equipped with singlebeam, a test platform and for very shallow water surveys.

To summarize these three quite different ASV concepts: the systems are to be used in very different environments and for different survey projects, for example their endurance ranges between 1-10 days and weather tolerances from gentle wave height to sea state 5. The survey systems itself are much the same as for traditional hydrographic surveys, ie the same type of sensors are required, where the solution of sound velocity profiling may differ the most. The challenges with ASV lies in how to organize field personnel, have proper tools and equipment on the field, reliable ways to monitor/supervise and assist the ASV, safe launch and recovery procedures etc. The main challenge however, is how to manage navigational rules and obstacle avoidance (for example COLREGs). Either PL nor SE has taken the full step to let the ASV perform completely autonomously, surveys has so far for the smaller ASVs been within eye-range and for the larger ASV been supervised from a nearby mother ship, always possible to take over the control by a radio link.

BSHC 27th action BSHC26 / D.8 (Decided at meeting / Agenda item)  
BSHC26/18 (Orig. number in Items):

BSHC MWG to consider the possible use of CSB data in the Baltic Sea region, and report back.

- For MWG23 meeting an inquiry was made regarding the use of CSB. Member states reported how they use CSB and results were documented in excel sheet.

BSHC 27th action BSHC27 / B.2 (Decided at meeting / Agenda item)

BSHC27/3 (Orig. number in Items):

MWG to provide data from HELCOM re-survey database to the Secretariat, to be used for SPI 1.2.2 related survey coverage analysis.

- The chair of MWG sent on 20.12.2022 percentages of adequately surveyed area of each member states to the IHO Secretariat, to be used for SPI 1.2.2 related survey coverage analysis.

Presentations were given by MWG members in following meetings, as planned:

- Reporting to HELCOM MARITIME 22, videoconference, September 2022
- Reporting to EUSBRS Pa Ship & Safe Steering Group -Operational Part meeting (EU Strategy of the Baltic Sea Region) at videoconference on 16 May 2023 hosted by Sweden (by the presenter Maarit Mikkelsen)

#### **4. Future Work of the MWG**

MWG will continue to monitor the progress of the HELCOM Re-survey Scheme and update Re-Survey Database. It is of importance to have the database enhanced and interface operate reliably.

MWG will present the updated Harmonized Re-Survey Scheme Status as part of the Baltic Sea Action Plan at HELCOM Maritime 23 in Norrköping on 24.-26.10.2023 and at HELCOM Maritime Safe Nav expert group online meeting on 18.9.2023.

Continue cooperation with future possible EU CEF program (TEN-T) and EU REGIO (Interreg) funding projects concerning Re-Surveys in the Baltic Sea.

Follow up HELCOM Head of Delegates outcome on the need of updating Re-survey plan and perform Re-surveys especially in areas in South-Eastern Baltic, where AIS-records show commercial shipping taking place and which areas are not nationally categorized as HELCOM cat I or cat II areas - limited progress due to lack of bilateral negotiations.

Continue liaison and information exchange with NSHC.

Continue communication with relevant organisations and inform users by giving presentations and participating in relevant conferences, such as HELCOM Maritime and EU BSRS PA Safe Steering Committee (as revised Re-Survey Scheme has a Flagship status within EU).

To follow up the HSWG (of IHO) and to implement S-44 ed6 to the hydrographic work within the Baltic Sea.

To activate all the member states to send representatives to MWG meetings and participate MWG work.

To promote collecting the bathymetric data for the cartographic purpose at the Baltic Sea HELCOM Routes, with the reference to the BSCD2000 geoid model.

## 5. Actions for the BSHC 28<sup>th</sup> Conference

The BSHC 28<sup>th</sup> Conference is invited to

1. note this Report
2. note the revised HELCOM Re-Survey Scheme status, to be reported to the HELCOM Maritime 23 on 24.-26.10.2023 and EU SBSR PA Safe operational meeting on 12.9.2023
3. encourage member states to study and define Cat I & II areas in their waters based on the existing AIS-information on commercial shipping
4. encourage member states to perform re-surveys in all revised HELCOM Re-Survey Scheme areas
5. encourage member states to participate actively to MWG work
6. take necessary action to influence, that hydrographic and maritime transport needs and safety are taken into account within Maritime Spatial Planning in the Baltic Sea Member States;
7. note that MWG enquires representation from Germany to MWG
8. note that MWG enquires candidates to act as MWG vice-chair
9. give further guidance to MWG, as seen appropriate

Annexes (below):

1. MWG TORs and work program
2. HELCOM Re-Survey status

## Annex 1 to the MWG Report

### **MWG Work Programme for 2021 - 2025**

[Version 9, proposed on 24 Sept 2020 at BSHC25]

**MWG Tasks:** [based on MWG TORs as approved by BSHC 13<sup>th</sup> Conference, 20 August 2008]:

- 1.1 To maintain the Baltic Sea Harmonised Re-survey Scheme
- 1.2 To maintain the re-survey metadata database
- 1.3 To monitor the progress of the execution of the Harmonised Re-Survey Scheme
- 1.4 To identify possible problems and propose solutions or workarounds to them
- 1.5 To specify and propose updates and changes to the Harmonised Re-Survey Scheme
- 1.6 To liaise with national Maritime Administrations, HELCOM Secretariat, and other relevant organisations.
- 1.7 To support IHO working groups and other European projects in issues concerning IHO S-44 and survey status, e.g. IHO HSWG. Any official decisions shall be brought to BSHC Conference be decided.
- 1.8 The MWG should report to the BSHC at least once a year.

#### **Tasks for 2021 - 2025:**

No	Task	Resp.	Priority	Remarks/Status
B.1	MWG to monitor the implementation of Re-survey Scheme	All	High	
B.2	MWG Members to update national re-survey plans	All	High	Awareness needed for the South-Eastern Baltic Sea
B.3	MWG Members to take necessary harmonisation actions between countries	All	High	Awareness needed for the South-Eastern Baltic Sea
B.4	MWG Members to keep Re-survey database updated	All	High	
C.1	MWG to develop specifications for new re-survey database	All	High	More specific development tasks may be listed.
C.2	To contribute to IHO C-55 development and harmonise the developments	Chair / BSHC Chair	Medium	
C.3	To contribute to IHO S-44 work	All / team participants	High	through representation at IHO HSWG
D.1	To liaise with other relevant organisations (HELCOM, NMAs, NSHC, EU SBSR...),	Chair	Medium	
D.2	To report to BSHC yearly	Chair	High	
D.3	To write articles (relevant publications, conferences, etc.)	Chair	Low	There are articles on IHR 10/2014.
D.4	To promote collecting the bathymetric data for the cartographic purpose at the Baltic Sea HELCOM Routes, with the reference to the BSCD2000 geoid model	All	High	

#### MWG Meetings past 9 years:

MWG12, 17 June 2015, Riga, Latvia  
 MWG13, 10 February 2016, Norrköping, Sweden  
 MWG14, 11 November 2016, Rostock, Germany  
 MWG15, 8 March 2017, Malmö, Sweden  
 MWG 16, 21-22 September 2017, Rostock, Germany  
 MWG17, 7 March 2018, Malmö, Sweden  
 MWG18, 27 August 2018, Aalborg, Denmark  
 MWG18 B, 14-15 November 2018, Riga, Latvia  
 MWG19, 16-17 April 2019, Tallinn, Estonia  
 MWG20, 10 Sept 2019, Gdansk, Poland



**TRAFICOM**

28<sup>th</sup> BSHC Conference  
19-21. September 2023  
Helsinki, Finland

**Agenda Item C.2**  
**MWG Report**  
**Finland**

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MWG21, 24 March 2020 SKYPE video conference  
MWG22, 26 April 2021 SKYPE video conference  
MWG23, 16 March 2023 Hybrid meeting; Helsinki Finland + SKYPE video conference

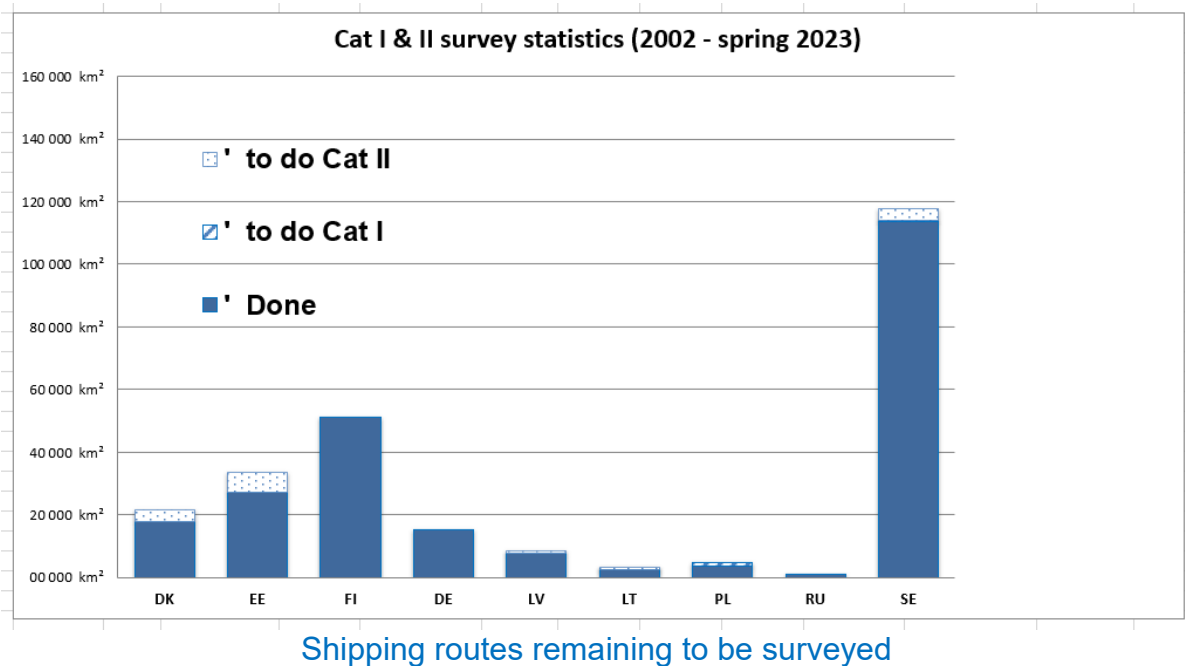
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**Annex 2** to the MWG Report

**HELCOM Re-Survey status statistics (Spring 2023)**

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<https://helcomresurvey.sjofartsverket.se/>