


**IHO Marine Spatial Data Infrastructures Working Group (MSDIWG)  
DRAFT WORK PLAN 2021–2024**

**MSDI Tasks**

A	Communication and dissemination								
B	Operational - Data sharing and management								
C	Policies and governances – RHC. (Ensure that MSDI is a standing agenda item for RHCs' meetings (IHO Res 2/1997, as amended, refers))								
D	Standards (OGC and HSSC)								
E	Innovation – Future perspectives (2021 - 2030)								
F	Training and education								
G	Maintain and extend the publication IHO MSDI C-17 (IHO Task 3.9.2.1 refers)								
H	Conduct annual meetings of MSDIWG, arranged back to back with 1-day MSDI Open Forum (IHO Task 3.9.1 refers)								
No	Work item	Priority H-high M-med L-low	Milestones	Start Date	End Date	Status P-planned O-ongoing C-completed	Responsible / contact person(s)	Related Pubs / Standard	Remarks
A.1	Implement MSDI and MSP Maturity Assessments (national and regional) to enable consistent reporting from MS through RHC to IRCC.	H	1. Evaluate available template's 2. Decide on template. 3. Promote template to use.	2021	2022	P	USA (NGA)		
A.2 New	IHO Strategy Goal 2.1. Build a portal to support and promote regional and international cooperation in marine spatial data infrastructures (MSDI).		1. Investigate the different possibilities 2. Gather information and evaluate IHO MS user needs 3. Prepare a proposal for IRCC approval 4. Build a portal	2021	2024	P			
A.3	Develop and provide guidelines on MSDI implementation.	M	1. Guidelines in place based on outputs from tasks B1-3: C2	2017	2022	O	?		
A.4	Develop MS or RHC relevant Case Studies. Ref: C2	M	1. Arctic Region 2. Baltic Region 3. Brazil 4. East Asia Region	2017 2017 2018 2018	2022	P	USA Denmark Brazil Korea		Status? 1. Completed. Template available on MSDIWG

									BoK.
<b>B.1</b>	Create an implementation "roadmap" template for MSDI (at national and/or regional level)	H	1. Gather information 2. Compile information 3. Publish template for implementation	Mar 17	Dec 18	O	IIC Esri USA, (NGA)		USA (NGA) Comment: Ref. IGIF Implementa tion Guide
<b>B.2</b>	Identify core data for input to MSDI to support multiple applications [Ref: B1]	M	1. Marine Cadastre 2. Emergency Response 3. Coastal Zone Management	Mar 17	2023	O			
<b>B.3</b>	Identify wider user requirements for bathymetry data	H	1. Develop primary use case for Arctic Bathymetry SDI 2. Update concept development study (\$) 3. Propose test-bed 4. Build test-bed (\$)	2017	2022	O	OGC USA (NGA)		MSDI-CDS Complete 2019
<b>C. 1 New</b>	Alignment with UN-GGIM IGIF and IHO MSDI C-17	H	1. Compare the two foundation concepts 2. Define the HO perspective 3. Propose changes to C-17	2021	2022	<del>P</del> 			
<b>C. 2 New</b>	Cooperation with RHC MSDI WG		1. Identify and list RHC MSDI WG MS and Chairs 2. Create procedures for cooperation	2021	2024	P			
<b>C.3</b>	Develop a governance model for MSDI	M	1. Deliver best practice governance models to BoK (Ref: B3)	2017	2022	O	Denmark USA (NGA)		USA (NGA) Comment: Ref. IGIF Implementa tion Guide, Strategic Pathway 1
<b>C.4</b>	Data Sharing and Publishing Licence	M	1. Provide updated licensing models and templates as 'best practice' to MSDI BoK	2018	2024	O	NZ, USA, OceanWise, Indonesia, Malaysia Esri		
<b>D.1</b>	Identify relevant standards to support MSDI implementation and operation.	H	2. Provide annual reports to IRCC and HSSC 3. DGGS (Ref: B3)	Jun 17	2022	O	OGC Marine DWG		
<b>D.2</b>	Assess the suitability and shortcomings	M	1. Identify standards relevant to	2018	2024	O	OGC Marine		

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<b>New</b>	of standards in supporting data interoperability.		<ul style="list-style-type: none"> <li>bathymetry (Ref: B3)</li> <li>2. Marine Cadastre</li> <li>3. Oceanography</li> <li>4. Opportunities with HSSC/S-100 during decade of implementation. (To identify the best opportunities to use S-100 in MSDI as well as interoperability with OGC API Standards.)</li> </ul>				DWG (inc: Portugal)		
<b>D.3 new</b>	Cooperate with the OGC MSDI Pilot		<ul style="list-style-type: none"> <li>1. Participate in and Promote the OGC Pilot Project</li> <li>2. Assess output from the OGC Pilot</li> <li>3. Evaluate relevance and implications from a HO perspective</li> <li>4. Take (appropriate actions as necessary</li> </ul>	2021	2023	O			
<b>E.1</b>	Identify and report on the future trends affecting MSDI e.g. autonomous platforms, standards, big data, cloud, internet of things and artificial intelligence.	M	<ul style="list-style-type: none"> <li>1. Information gathering (Horizon Scanning)</li> <li>2. Publish White Paper (inc: PPP)</li> </ul>	2018	2024	O	Esri OceanWise USA Portugal Caris		
<b>E.2</b>	Establish an IHO MSDI Vision for 2030.	L	<ul style="list-style-type: none"> <li>1. Prepare draft Position Paper ("think piece") to include technologies, methodologies, sustainability</li> <li>2. Align with other Visions</li> <li>3. Align with IHO Strategic Roadmap for S-100</li> </ul>	2018	2022	O	OceanWise UK US (NGA)		
<b>E. 3. New</b>	Identify challenges, options and solutions in relation to data security and integrity from a HO MSDI perspective		<ul style="list-style-type: none"> <li>1. Information gathering (Horizon Scanning)</li> <li>2. Reporting to IHO MSDIWG</li> <li>3. Evaluate input to C-17 and IHO bodies/WG</li> <li>4. Investigate possibilities with Blockchain based system for assuring data integrity.</li> <li>5. Take appropriate actions as necessary</li> </ul>	2021	2023	P			

<b>E. 4. New</b>	Corporation with IHO-Singapore Innovation and Technology Laboratory		<ol style="list-style-type: none"> <li>1. Identify the different IHO MS user needs with relation to future trends affecting MSDI (E.1)</li> <li>2. Discuss how IHO MS can participate in the work of IHO innovation lab</li> <li>3. Report back to IHO MS</li> </ol>	2021	2024	O			
<b>F.1</b>	Develop and maintain training syllabi	M	<ol style="list-style-type: none"> <li>1. Review and update in line with relevant developments, methods and content</li> </ol>	2018	2022	O	Denmark IIC		
<b>F.2</b>	Support development and delivery of e-learning platforms	L	<ol style="list-style-type: none"> <li>1. Coordinate activities with East Asia (KHOA)</li> <li>2. Compile list of existing e-learning modules relevant to MSDI</li> </ol>	2018	2023	<del>O</del> C	Esri OceanWise KHOA		
<b>F.3</b>	Develop a MSDI communications plan for MSDI BoK	M	<ol style="list-style-type: none"> <li>1. Identify the need, audience and focus</li> <li>2. Report findings</li> <li>3. Deliver Plan</li> </ol>	2018	2020	P	IHO NZ(LINZ) Netherlands US (NOAA)		
<b>G.1</b>	Maintain IHO publication C-17 to reflect developments in ICT, Content, Standards and Governance of MSDI	H	<ol style="list-style-type: none"> <li>1. Manage content</li> <li>2. Create a Wiki</li> <li>3. Request IRCC remove document from IHO Res: 2/2007</li> <li>4. On-line dynamic content</li> </ol>	2017	2020	O	OceanWise Esri USA Denmark Germany Portugal		V2.0 now approved by IRCC
<b>G. 2 New</b>	Update C-17 in accordance with BX (UN-GGIM/IGIF)		<ol style="list-style-type: none"> <li>1. Create a C-17 drafting team</li> <li>2. Identify the need for changes</li> <li>3. Evaluate the structure of C-17 with IHO MSDIWG members.</li> <li>4. To send out a questionnaire to IHO MS and RHC's.</li> <li>5. Update C-17.</li> </ol>	2021	2023	<del>P</del> OP			
<b>H.1</b>	Conduct 2019 -21 meetings of MSDIWG, arranged back to back with MSDI Open Forum, OGC Marine DWG	H	<ol style="list-style-type: none"> <li>1. Date and venue defined</li> <li>2. Logistics in place</li> <li>3. Open Forum program defined</li> </ol>	2017	2024	<del>O</del> C <del>O</del>	MSDIWG Management Group		2021 – Singapore 2022 -?

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	and UN-GGIM MGI WG meeting		4. Develop content for DWG workshops				(Chair/Vice Chair, Sec, IHB)		2023 - ? 2024 -?
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