



# MSDIWG

## Marine Spatial Data Infrastructures Working Group

Report to IRCC16

Santa Cruz Island - Galapagos, Ecuador  
10 – 12 June 2024

By Caitlin Johnson

MSDIWG Chair



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UN-GGIM  
UNITED NATIONS  
COMMITTEE OF EXPERTS ON  
GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT



Open  
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# International Seminar on United Nations Global Geospatial Information Management: *“effective and integrated marine geospatial information management”*

International Hydrographic Organization

Session #1: Availability and accessibility of marine geospatial information for effective governance of seas and oceans



Session #2: Implementing the UN-IGIF-Hydro and advancing the conservation and sustainable use of marine resources

Session #3: Partnerships and innovations for integrated marine geospatial information management



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# MSDIWG15 Meeting Objectives

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- Exchange knowledge through national, RHC, and expert contributor presentations; with a specific emphasis on sharing and enabling regional MSDI working groups' initiatives
- Discuss IHO Strategy and goals from a MSDI perspective; specifically IHO Strategic Plan Target 2.1 *“Build a portal...”*
- Celebrate adoption of IHO publication C-17 v. 3.0 and investigate options for future maintenance
- Discuss the Future MSDI and vision for 2030
- Update the MSDIWG Work Plan
- Continue collaboration with UN-GGIM WG-MGI and OGC Marine DWG



IHO, MSDIWG, Indonesia



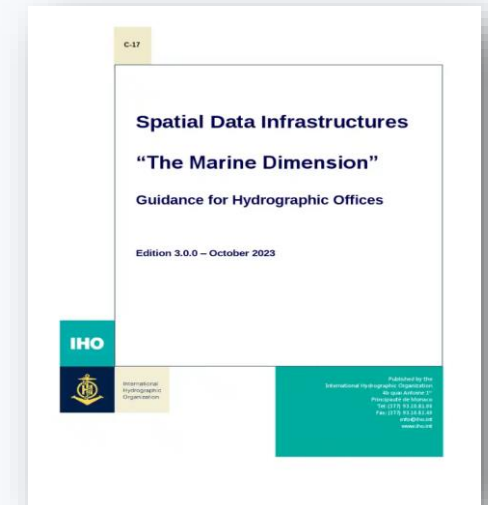
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# Work Program/ Progress on IRCC Action Items

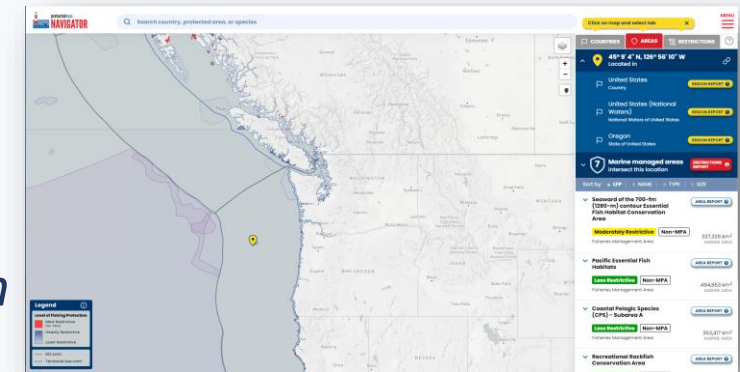
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- National MSDI Reports
  - Land/sea interface, coastal zone implementation
  - Use case actions for MSDIWG16
- Adoption of IHO C-17 v.3 (Oct. 2023)
  - Future updates/ maintenance via Github
- IHO Strategic Plan Target 2.1
  - S-122/ Marine Protected Areas; ProtectedSeas collaboration
  - Recommend C7/44 be updated to reflect the work of the MSDIWG:

*MSDIWG to monitor and provide assistance to the S-122 ProtectedSeas pilot project with specific focus on the High Seas and MPAs adopted by IMO, to demonstrate the benefits of S-122 for non-navigation purposes.*



C-17 version 3.0



ProtectedSeas Navigator



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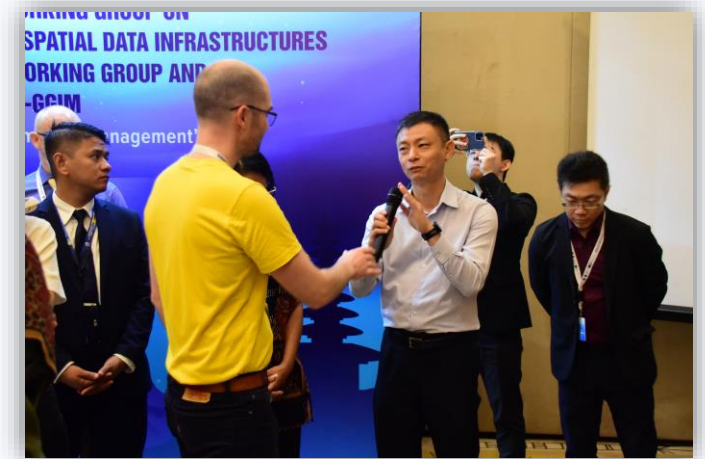
# Regional MSDI WG Initiatives

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- [List](#) of MSDI Ambassadors/ RHC WG Chairs
- Active vs. Non-Active [Survey](#)
- Regional MSDI WG [Reports](#)
- [SWPHC MSDI WG Successes](#)
  - Data Sharing Value Propositions: *Why should we share data?*
  - IGIF Videos
- Interactive Session
  - Outcome: [Key Themes for Successful Collaboration in Regional MSDI WGs](#) document



*Break-out groups*



*Discussing outcomes*

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# Work Program: Future of MSDI

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Some ideas to consider...

- S-100 and MSDI
  - S-122 Marine Protected Areas
- Digital Twins for Marine Spatial Data
- Collaboration and engagement with stakeholders
- Emerging technological trends



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# Proposed MSDIWG Work Plan 2024 - 2027

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## Current Work Plan Themes

- Communication and Dissemination
- Operational – Data sharing and Management
- Policies and Governance – RHC
- Standards (OGC and HSSC)
- Innovation - Future Perspectives
- Training and Education
- Maintain and Extend IHO C-17
- Conduct annual meetings

## UN-IGIF Themes

- **Communication and Engagement**
- **Data**
- **Governance and Institutions**
- **Policy and Legal**
- **Standards**
- **Innovation**
- **Capacity and Education**
- **Partnerships**
- **Financial**





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# Proposed MSDI WG Work Plan 2024 - 2027

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## Governance and Institutions

- Create story map to demonstrate value of MSDI



## Data

- Publish Data Value Proposition document



## Innovation

- Collaborate with innovation centers to explore use cases
- Conduct exploratory study to identify uses of AI in maritime sector
- Promote land/ sea interface



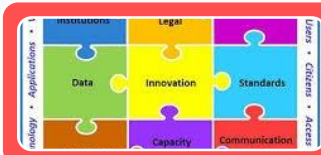
## Standards

- Simplify standards for novice user
- Map S-100 with ISO19115 and other relevant standards



## Capacity and Education

- Maintain IHO C-17 in accordance with UN-IGIF-H



## Communication and Engagement

- Present national MSDI initiatives
- Collaborate with and enable RHC MSDI Working Groups
- Conduct annual meetings

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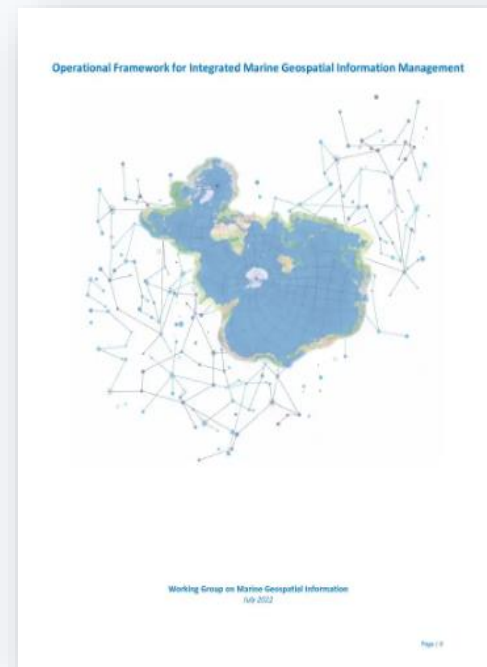


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# UN-GGIM WG-MGI - 6<sup>th</sup> Expert Meeting

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- Implementation of the UN-IGIF-Hydro
  - HOW do we get the document in motion
- Terrestrial/ marine/ cadastral domain integration
  - Expert Group on Land Administration presentation
  - Existing use cases
- 14<sup>th</sup> Session of the Committee of Experts
  - August 2024, NYC
  - Side event on terrestrial, marine, and cadastral domain integration



UN-IGIF-Hydro



UN-GGIM, WG-MGI, MSDIWG, IHO

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# OGC Federated MSDI Pilot

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*Phase Three*



*Phase Four*

## Digital Twin of Land and Sea Interfaces: Singapore

- Organizational challenges
- Digital Twin of coastline

## Digital Arctic Connecting Land and Sea: Canadian Arctic

- Rate of change affecting ecosystems
- Discover and present data from many sources for many uses

## Integrating Land and Sea for Various Use Cases: Caribbean

- Extreme weather events
- Local coastal and marine policies

**FMSDI 2023**

**Engineering Report**

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# IRCC is invited to:

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- Note this summary
- Continue to appoint RHC MSDI Ambassadors and inform the MSDIWG of contact details
- Liaise with Regional MSDI Working Group Chairs and Ambassadors regarding the needs of the RHC in relation to MSDI
- Approve the Proposed MSDIWG 2024 – 2027 Work Plan
- Recommend that Council decision C7/44 reflect the work of the group to address the Council's instruction, changing to:
  - MSDIWG to **monitor and provide assistance** to the S-122 Protected Seas pilot project with specific focus on the High Seas and MPAs adopted by IMO, to demonstrate the benefits of S-122 for non-navigation purposes.





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# Thank you!

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