



# 15<sup>th</sup> Meeting of the IHO MSDIWG

## Update of the Work Plan



**IHO**

International  
Hydrographic  
Organization

**What do we want to achieve**

**What would a good MSDIWG look like?**

**What are the outcomes we would like to see?**

**What would we like to do in the future that we can't do today?**



IHO

# Objectives...?

International  
Hydrographic  
Organization

- 1. Maritime Organizations and Governments:** Access to a unified global standard for maritime spatial data which will enable seamless sharing and integration of data across borders, significantly enhancing global maritime safety, environmental protection, and sustainable resource management. Organizations will transition from siloed data systems to a collaborative, interoperable framework, facilitating more informed decision-making and policy development.
- 2. Researchers and Environmentalists:** With enhanced data accessibility and quality, researchers can conduct more comprehensive and accurate studies on marine ecosystems, climate change impacts, and resource sustainability. This advancement will empower them to develop more effective conservation strategies and environmental protection measures, contributing to global efforts in combating climate change and preserving biodiversity.
- 3. Maritime Industry Stakeholders:** Companies in shipping, fishing, offshore energy sectors, etc. will be able to optimize their operations through real-time access to accurate and comprehensive maritime spatial data. This includes improved navigation safety, efficient route planning, and reduced environmental impact. The future we envision allows these stakeholders to achieve economic benefits while adhering to sustainability principles.
- 4. Local Communities and Indigenous Peoples:** By ensuring that maritime spatial planning processes are inclusive and data is accessible, local and indigenous communities can better protect their maritime rights and resources. They will have the tools and information needed to advocate for sustainable development in their regions, directly involving them in decision-making processes that affect their livelihoods and cultural heritage.
- 5. General Public:** Enhanced transparency and access to maritime spatial data will enable the public to be better informed about maritime activities, environmental issues, and conservation efforts. This increased awareness and understanding can lead to stronger public support for sustainable maritime policies and practices.

**Goal 1: Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation**

<i><b>Targets</b></i>	<i><b>Relation with IHO Object</b></i>
1.1 Deliver standards for hydrographic data and specifications of hydrographic products; support their regular production; and coordinate regional and global services for their provision.	a, d, e
1.2 Develop standards, specifications and guidelines in the areas of data assurance, including cyber security and data quality assessment.	b
1.3 Use capacity building and training to develop and increase the ability of Member States to support safety and efficiency of maritime navigation.	c

# IHO Strategic Plan

**Goal 3: Participating actively in international initiatives related to the knowledge and the sustainable use of the Ocean**

<i><b>Targets</b></i>	<i><b>Relation with IHO Object</b></i>
3.1 Collaborate with other bodies who deliver capacity building and training to improve effectiveness of capacity building activities and programmes	c
3.2 Improve knowledge of the world's seafloors	b, f
3.3 Implement a comprehensive IHO digital communication strategy in order to enhance its visibility and accessibility to its work	a, b, e

**Goal 2: Increasing the use of hydrographic data for the benefit of society**

<i><b>Targets</b></i>	<i><b>Relation with IHO Object</b></i>
2.1 Build a portal to support and promote regional and international cooperation in marine spatial data infrastructures (MSDI).	b, g
2.2 Promote new tools and methods to accelerate and increase coverage, consistency, quality of surveys in poorly surveyed areas.	b, d
2.3 Apply UN shared guiding principles for geospatial information management in order to ensure interoperability and extended use of hydrographic data in combination with other marine-related data.	d, g



IHO

International  
Hydrographic  
Organization

3. The WG should:
  - 3.1 Monitor national, regional and international SDI activities and trends, and present information on those activities to IRCC members by correspondence and at the annual meeting.
  - 3.2 Promote the use of IHO standards and member state marine data in SDI activities.
  - 3.3 Liaise, as appropriate, with other relevant bodies to increase the visibility of marine spatial data.
  - 3.4 Identify actions, procedures and resolutions that the IHO might take to contribute to the development of SDI and/or MSDI in support of Member States.
  - 3.5 Determine any actions that the IHO and individual Member State might take to forge links with other bodies (e.g. OGC, ISO TC211, IOC) to ensure Member States are best placed to meet the developing challenges associated with data management and governance.
  - 3.6 Identify and recommend possible solutions to any significant technical issues related to interoperability between maritime and land-based inputs to SDI, and in particular:
    - a) Datum issues.
    - b) S-100 interoperability with SDI.
    - c) S-100 interoperability with oceanographic, marine biological, geological and geophysical data structures.
  - 3.7 Identify any IHO capacity building requirements related to MSDI.
  - 3.8 Develop a syllabus for MSDI familiarization.
  - 3.9 Follow the development in MSP implementation worldwide.
  - 3.10 Establish a list of relevant MS National MSP Data Contact Points and contact persons.
  - 3.11 Establish a list of additional relevant institutions, contact person/data experts.
  - 3.12 Study the most relevant MSP issues in a cross-border / trans-boundary context in relation to data and information seen from a MS perspective.
  - 3.13 Compile minimum requirements for Hydrographic data for Maritime Spatial Plan Data and recommendations of distribution/sharing of this data.
  - 3.14 Provide an overview on (national / regional) MSP best practice.
  - 3.15 Establish MSP on the IHO website under body of knowledge.
  - 3.16 Maintain and Update IHO publication C-17 – Spatial Data Infrastructures “The Marine Dimension”, Guidance for Hydrographic Offices.



IHO

# Current Work Plan Themes

International  
Hydrographic  
Organization

- 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 Publication C-17
- Conduct annual meetings



**IHO**

# Potential Work Plan Themes – Alignment to IGIF

International  
Hydrographic  
Organization

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



IHO

# Examples of Tasks

International  
Hydrographic  
Organization

## **Task 1: Identify Key Data Gaps and Priorities**

Objective: To establish a clear understanding of where critical hydrographic data is lacking or outdated on a global scale.

## **Task 2: Develop a Shared Data Collection Template**

Objective: To standardize the way data is collected and shared among member countries to improve compatibility and efficiency.

## **Task 3: Create a Compact Guide on Best Practices for Data Quality and Sharing**

Objective: To enhance the quality of hydrographic data collected and facilitate its sharing among international stakeholders.

## **Task 4: Establish a Small-Scale Pilot Project for Data Sharing**

Objective: To test the feasibility and benefits of increased data sharing and collaboration on a manageable scale before wider implementation.





IHO

# Potential Tasks

- National Reports from Member States
- Reports from regional MSDI working groups
- Share reference documents to MSDIWG BoK
  - Organize/ clean-up layout of BoK
    - Conduct annual meetings
  - Provide the data value proposition of MSDI
    - Create story map of the value of MSDI
  - Engage with other marine data stakeholders
  - Conduct open forums/ international seminars
- Outreach initiatives to involve decision-makers and people outside of the hydrographic community
  - Develop MSDI “best practices” or implementation guides
    - Partnering with the implementation of IGIF-H
  - Land/sea interface initiatives, best practices guides
    - Participate in OGC FMSDI Pilot Project
      - Consider data “hub” options
  - Navigating the complex web of maritime law
    - S-100 standards developments, pilots, etc.
      - Marine Spatial Planning
      - Maturity Assessments
- Data Standardization and Integration: Are we all speaking the same language?
  - Future technology trends, AI
  - Identify challenges with technology
  - Cooperate with IHO-Singapore Lab
- Assess MSDI training needs and develop workshops to address as needed
  - Refine existing training
    - C-17
  - Future MSDI
  - Explore use cases