

SWPHC MSDI WG Initiatives

IHO MSDIWG15

March 2024



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South West Pacific Hydrographic Commission



How we identify our activities?

- Take our direction from the SWPHC Workplan and aligned IHO priorities
- Focused on 2 main activities
 1. Creating the publication - Why should we share data?
 2. Adoption and implementation of IGIF-H – short videos



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Data Sharing Value Propositions

Collaborate with regional bodies and coastal states to develop and promote a "data value proposition" and share within the region.	Users Who would be the Audience for the "Data Value Propositions"	Problem Statement What is the Problem the Data Value Propositions are trying to resolve?	The Goal What is the Goal of the Data Value Propositions?	The Success Criteria It would be great if the Data Value Propositions achieved this?	What would a Good value proposition Look Like What would a Value proposition look like?	How Might We's? How might we... approach this task? How might we... develop these propositions? How might we... promote and share?
<p>Enter your input into these columns</p> <p>You can add a sticky note or just type</p>		<p>We struggle to demonstrate why data should be made available and the ROI, the audience understand challenges to releasing data but not the benefits. The Value Propositions would help to describe this</p>	<p>To develop people's understanding of what Value could be achieved by making Marine Geospatial Information available.</p> <p>To help Customers to understand how Marine Geospatial Information can support their business</p> <p>A value proposition can also help us determine priorities in terms of what gets released because it frames conversations about what is most valuable</p> <p>To link the value proposition with known and accepted strategic activities such as a nations trade and economy, Blue Oceans, Climate change / resilience, UN Decade of the Ocean etc</p> <p>Environmental protection and decision making</p>			



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Data Sharing Value Propositions

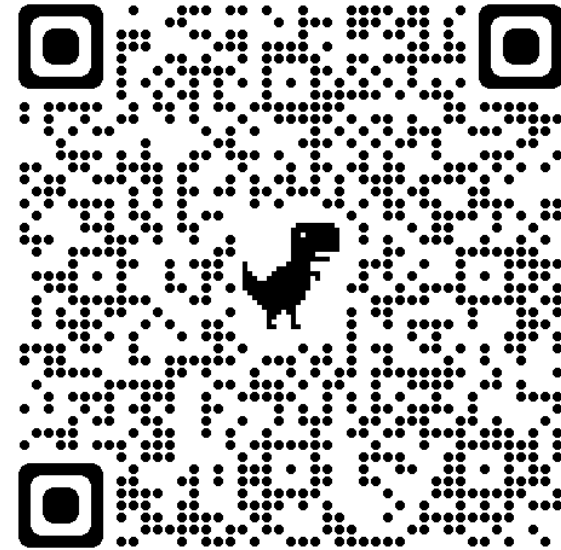
Why should we share data?

Unlocking the value in hydrographic offices' data

Version 1.0 - February 2023



SWPHC supports the Sustainable Development Goals



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Data Value Sharing Propositions

Public understanding

Introduction

Hydrographic offices hold and manage significant collections of marine spatial data, including environmental and historical assets. While hydrographic offices traditionally use their data to support safe navigation, their responsibilities may extend further, supporting all maritime activities, including economic development and environmental protection. Unlike published charts or tide tables, statistical or geographic information systems can directly analyse datasets, making them useful in many applications.

Trusted marine spatial data supports:

- › safe navigation and the safety of life at sea (SOLAS)
- › the enforcement of environmental protection rules and regulations
- › increased capability of commercial operators (Blue Economy)
- › the effective management of marine resources and marine planning

Public understanding

Releasing marine spatial data raises public understanding of the importance of hydrography.

Routinely and proactively releasing data makes it discoverable to governments, aid agencies, commercial users, and the public. Sharing data reduces the burden on potential data users and increases the reuse of marine spatial data to support a wide range of activities. Publicly released data is better if it is made as FAIR (Findable, Accessible, Interoperable, Reusable) (Wilkinson et al. 2016) as possible, using appropriate community standards for the data and its metadata.

Hydrographic offices often manage data with national security implications, limiting the data they can make public; however, we must balance these risks against the potential public benefits of sharing data to make potentially valuable datasets accessible where practicable. Where hydrographic offices cannot publish data fully, they can release partial datasets or bounding polygons and associated metadata to ensure the public can discover some data. Internally applying the FAIR principles makes it easier for hydrographic offices to incorporate public datasets into their products and lowers the administrative burden of releasing data publicly.



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The UN Sustainable Development Goals (SDGs) are a set of 17 goals adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that, by 2030, all people have peace and prosperity.

The UN has integrated 17 SDGs because the action in one area will affect outcomes in others; accordingly, development must balance social, economic and environmental sustainability. The UN also recognises that creativity, technology, expertise and financial resources are needed from every part of society to achieve the SDGs; therefore, businesses and organisations have a crucial role in delivering them.

The SWPHC MSDI Working Group identified seven crucial social benefits aligned with the 17 UN SDGs that may stem from the public release of hydrographic offices' data:

- › Food security
- › Education and capacity development
- › Safety
- › Sustainable resources
- › Environmental sustainability
- › Public release sovereignty
- › Heritage

The information on pages 6–10 demonstrates our work observing the SDGs by making the data holdings of hydrographic offices publicly available.



Hydrographic data and its uses beyond navigation:	Food security	Education and capacity development	Safety	Sustainable resources	Environmental sustainability	Public release sovereignty	Heritage
Bathymetry, seabed backscatter, and water column backscatter data can inform fishing industry management, including future planning.	✓						
Bathymetry, seafloor backscatter and water temperature data can help to identify potential aquaculture sites.	✓			✓	✓		
Seafloor backscatter data supports marine habitat mapping.	✓			✓	✓		
Sea level and water characteristics data, such as temperature and salinity, enable a better understanding of climate changes impact on marine environments.	✓				✓		
Bathymetric, geomorphic features and historical data help community groups understand their local marine environment.		✓		✓	✓	✓	✓
Access to and reuse of open hydrographic data supports exciting real-world projects that inspire students to become the maritime workforce of tomorrow.		✓					
Hydrographic data and derived products can help identify marine locations suitable for renewable energy production.			✓		✓		



Hydrographic data and its uses beyond navigation:	Food security	Education and capacity development	Safety	Sustainable resources	Environmental sustainability	Public release sovereignty	Heritage
Hydrographic data and derived products support commercial uses, including site selection, engineering, and start-up industries.				✓	✓		
Hydrographic data and derived products support tourism through transport and other planning in coastal areas.				✓			✓
Hydrographic data and derived products help communities, regulators, and companies make data-based decisions about deep-sea mining.				✓			
Scientific research develops an understanding of the marine environment across many disciplines which may not have direct contact with hydrographic offices. High-quality, trusted hydrographic data:							
› Increases confidence in policy decisions to better use and protect ocean resources.	✓	✓	✓		✓	✓	
› Provides ground-truthing and validation observations for scientific modelling.	✓	✓	✓		✓	✓	
› Improves ability to monitor impact of policy decisions.	✓	✓	✓		✓	✓	

Getting value from work completed

Why should we share data?

Unlocking the value in hydrographic offices' data



Version 1.0 – February 2023

You and 44 others

11 reposts

Reactions



Join our Community

- Home
- About
- Data Portal
- Survey Coordination Tool
- Quality Assurance Tool
- GMRT-AusSeabed
- Resources

- Seabed geomorphology scheme and tools
- News
- Newsletters
- Relevant Guidelines
- Record Templates
- Publications & Presentations
- Prior Meeting Outcomes
- System Capability Catalogue

Why we should share data? Unlocking the value of hydrographic data and contributing to the SDGs

While the AusSeabed community is focused on public data sharing.

To learn about the benefits of public data sharing, the Southwest Pacific Hydrographic Commission publication summarises the obligations and the UN Sustainable Development Goals.

To read the publication click here

Join us

Help us build MSDIs in the South West Pacific and unlock the value of the data that hydrographic offices hold.



<https://iho.int/en/msdiwg-0>

#tools
SLVR tool to be tried for ESRI/QGIS compatibility (lyr mainly) once it's OS, seems promising! by [North Road](#) inSafe for DRR not to forget, still handy and convenient for disaster risk reduction estimating impact off a natural crisis on population and infrastructures and gives valuable tips on how to anticipate it. Kart plugin seems to be very promising too on GIS data versioning. [Koordinates](#)

#community
Quantity doesn't make quality. Suva and Kiribati are not so many but have a vibrant GIS community. OpenStreetMap and OpenSource tools act as central lever. Very pleased to learn about accessibility community mapping too. Thanks for sharing To'oa [Faleaupu Brown](#), [Carrol Chan](#), [Vasiti Soko](#), [Ueakeia Tofingal](#) Also was great meeting Ewen Hill and looking forward to take a bigger part in the OSM promoting movement in the region.

#remotesensing
Nice use case of coconut trees mapping with satellite imagery, which seems to work well! [Ryan Perroy](#). Great to have an easy access to science approved remote sensing findings through [Qehnelo](#)

#sdi
Happy to share the view that one of the major challenge in setting up a SDI is about co-designing governance.



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Adoption & implementation of IGIF-Hydro

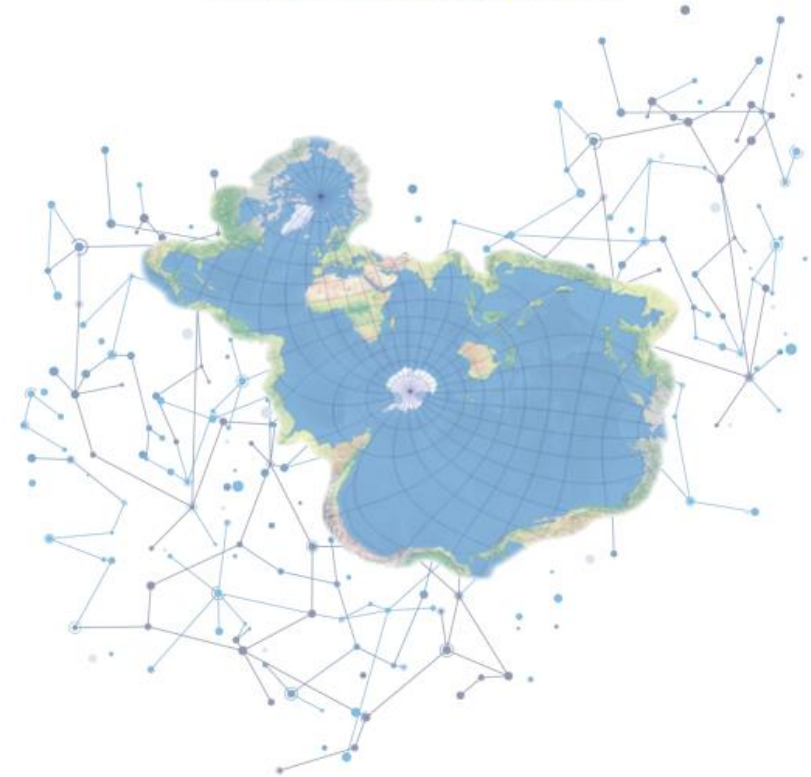


United Nations Integrated Geospatial Information Framework (UN-IGIF)



Operational Framework for Integrated Marine Geospatial Information (UN-IGIF-Hydro)

Part One: The Strategic Overview



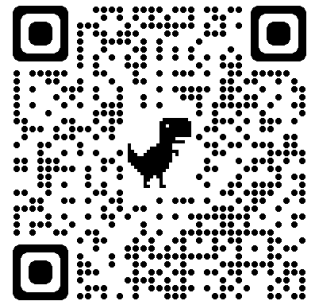
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Adoption and implementation of UN GGIM-IGIF-H

- SWPHC MSDI WG - IGIF Strategic Pathway 1 Overview
- SWPHC MSDI WG - IGIF Strategic Pathway 2 Overview
- SWPHC MSDI WG - IGIF Strategic Pathway 3 Overview
- SWPHC MSDI WG - IGIF Strategic Pathway 4 Overview
- SWPHC MSDI WG - IGIF Strategic Pathway 5 Overview
- SWPHC MSDI WG - IGIF Strategic Pathway 6 Overview
- SWPHC MSDI WG - IGIF Strategic Pathway 7 Overview
- [Link to "SWPHC MSDI WG - IGIF Strategic Pathway 8 Overview"](#)
- [Link to "SWPHC MSDI WG - IGIF Strategic Pathway 9 Overview"](#)



RECORDINGS

IGIF-H

Overview of Strategic Pathway 9 Communication and Engagement

January 2024

Content is based on UN-IGIF
PART 1
Overarching strategic
Framework
UN-IGIF- HYDRO PART 2

An illustration of five stylized human figures standing around a table, each holding a piece of a colorful puzzle that forms a circle. The puzzle pieces are in shades of red, orange, yellow, green, and blue.

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0:18 / 14:26

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A video call interface showing a grid of participant thumbnails on the right side. The thumbnails include names like David Arnold, Neal Evans, Daniel Miners, Anna Meis, PALU - FIJI, Graham C., Caitlin Joh..., Helen Phil., and David Cro... The interface also shows a play button, volume icon, and a progress bar at the bottom.

Strategic Pathway 2 – Policy and Legal

SWPHC MSDI WG - IGIF Strategic Pathway 2 Overview - Policy and Legal

- SOLAS and UNCLOS, MARPOL and others
- National legislation
 - Trade, commerce, exploration
 - Environmental (pollution prevention)
 - Fishing limits and controls
 - Scientific research
- Need geospatial maritime boundaries dataset to implement legislation
- IP Rights, data protection, privacy



0:51 / 12:50

Scroll for details



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Strategic Pathway 5 – Innovation

Strategic Pathway 5 Innovation - IGIF-Hydro

- Digital transformation is a key topic amongst hydro
Progress in technology listed challenge in IHO Strategic Plan for 2021-2026
https://iho.int/uploads/user/About%20IHO/Strategic%20Plan/IHOSP2021_2026_final.pdf

The **pace of technological innovations**, from sensors to digital services, **is increasing**, bolstering the need for **continuous adaptation of training and standards**, thus requiring strong **effort from HO in investment and training**. This is particularly significant for the automation of sensors carrying devices, and for new processing techniques from the field of artificial intelligence, which make it possible to handle 'big data' and augment the capacity of human teams.

Participants: David Arnold, Daniel Minets, Neal Evans, Belen Jimenez Baroñ, Helen Phillips, Pip Bricher, Anna Meis...



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Strategic Pathway 7 – Partnerships

Outcomes

- Increased Development Capacity through Sharing, Learning and Knowledge Transfer
- Enhanced Organization Knowledge, Expertise and Proficiencies and Expanded Capability through Complementary Resources
- Empowered Creativity and Innovation through Collaboration and Joint Efforts
- Agility and Flexibility in Transformation and Reform

Elements

- Organizational
- Private Sector
- International Collaboration
- Community Participation

Tools

- Identifying and classifying potential Partners
- Evaluation of Potential Partners
- Review and Evaluation
- Types of Partnerships
- Communication Plan
- Success Indicators

Approach

Interrelated Actions

- Geospatial Information Management Strategy (SP1)
- Sources of Funding (SP2)
- Business Case (SP3)
- Review and Assessment (SP2)
- Data Gap Analysis (SP4)
- Data Acquisition Program (SP4)
- Data Governance (SP4)
- Storage/Retrieval Systems (SP4)
- Data Release (SP4)
- Modernizing Data Assets (SP5)
- Modern Data Creation Method (SP5)
- Technology Needs Assessment (SP5)
- National Innovation System (SP5)
- Stakeholder Identification (SP9)
- Stakeholder Analysis (SP9)

Guiding Principles

- Mutual Respect, Trust and Understanding
- Shared Vision and Goals
- Clarity and Realism of Purpose and Scope
- Leadership, Commitment and Empowerment
- Learning and Development
- Transparency and Communication
- Performance Management and Accountability

Understanding Partnerships

- Need for Partnering
- Types of Partnership

Evaluating Opportunities

- Partnership Opportunities
- Selection Criteria

Identifying Potential Partners

- Potential Partners
- Preliminary Screening
- Initial Engagement

Selecting Partners

- Options and Operational Implications
- Financial Analysis

Formalizing Partnership

- Establishing Agreements
- Communications Plan
- Governance Structure

Managing Partnership

- Reporting and Accountability
- Review and Evaluation
- Concluding a Partnership

Elements

- Cross-sector and Interdisciplinary Cooperation
- Private Sector and Academia Collaboration
- Community Participation
- International Collaboration

Callout 1: Different perspectives in search of solutions based on a new and shared understanding of complex situations.

Callout 2: Partnerships with civil societies and communities for the benefit of the local community and its inhabitants.

Callout 3: Leveraging their respective integrated geospatial information management to accomplish transboundary, regional or global objectives.

6 South West Pacific Hydrographic Commission

5:24 / 23:28

Participant Video Feeds:

- Stuart Caie
- Daniel Miners
- Neal Evans
- David Crossman
- Graham C...
- Anna Meis...
- Belen Jim...
- Helen Phill...



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