South West Pacific Hydrographic Commission

Marine Spatial Data Infrastructures Working Group (MSDIWG) Annual report

Overview

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MSDIWG

The Marine Spatial Data Infrastructures in the South West Pacific Region was created with the propose to promote the sustainable development and use of the oceans, seas and inland waters in line with the United Nations Sustainable Development Goals.

The SWPHC MSDI effort is based on the 9 Strategic Pathways from the United Nations Global Geospatial Information Management, Integrated Geospatial Information Framework. (UN-GGIM IGIF) - https://ggim.un.org/IGIF/overview

The SWPHC MSDIWG is a subsidiary body of IHO's regional South West Pacific Hydrographic Commission (SWPHC). Its work is subject to SWPHC approval.

Chair: Helen Phillips, UK Hydrographic Office

Vice Chair: Paul Sliogeris, Australian Geospatial-Intelligence Organisation

Operations through the year

- Increased regional participation
- 5 Working Groups held plus 2 workshops
- Undertook a review and reflection on our operations
- Reviewed and updated our Terms of Reference
- Published all WG Minutes and Agendas on IHO SWPHC MSDI website

Activities through the Year

- Review and prioritisation of our actions within SWPHC Work Plan
- Established an MS Teams space hosted by the UKHO to develop actions and capture shared resources
- Shared Open Data Policies, and Indigenous Sovereign Data Policies
- Invited UN-GGIM to present IGIF-H to the WG
- Presented at the Pacific Geospatial Conference 2022, Fiji
- Created a Data Value Propositions document

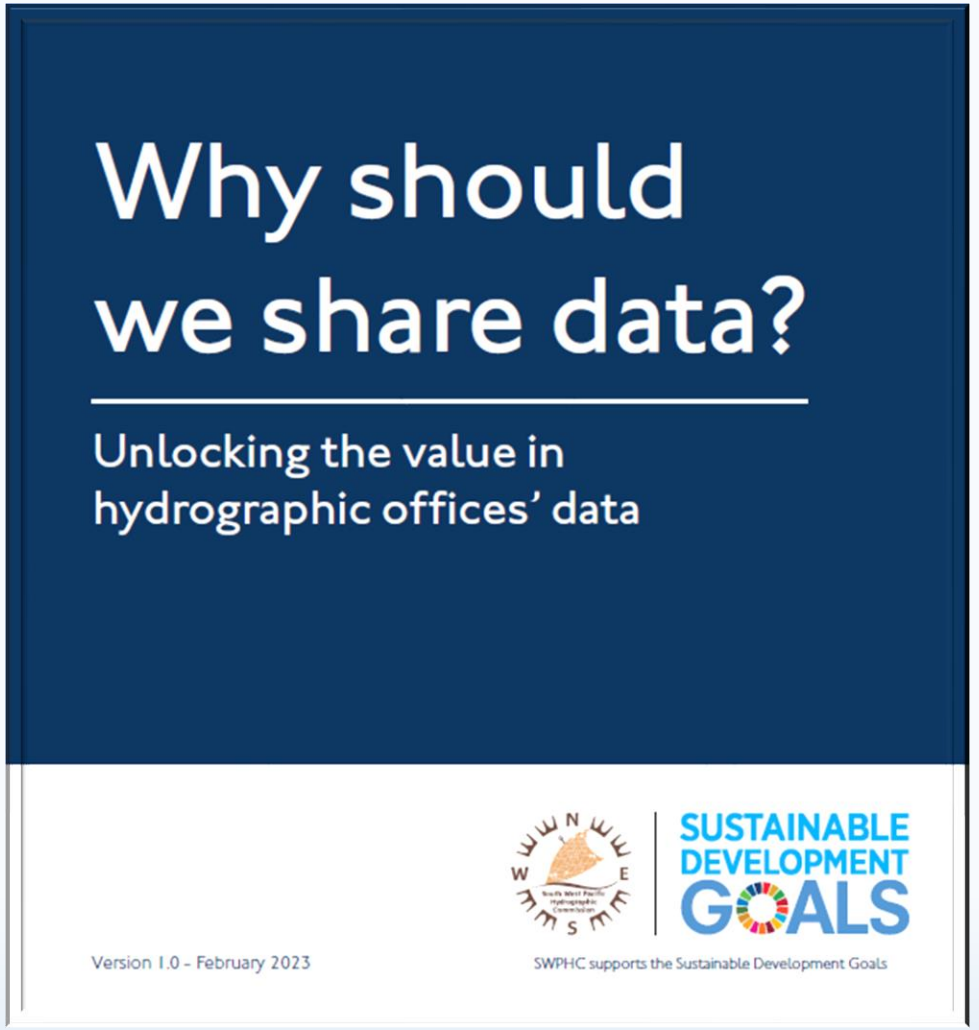
Data Sharing Value Propositions

	Users Who would be the Audience for the "Data Value Propsitions"	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?
Collaborate with regional bodies and coastal states to develop and promote a "data value proposition" and share within the region. **Enter your input into these columns** You can add a sticky note or just type		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	To develop people's understanding of what Value could be achieved by making Marine Geospatial Information available. To help Customers to understand how Marine Geospatial Information can support their business A value proposition can also help us determine priorities in terms of what gets released because it frames conversations about what is most valuable 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 Environmental protection and decision making			

Data Sharing Value Propositions

The Data Sharing Value Propositions are now completed and ready for launch.

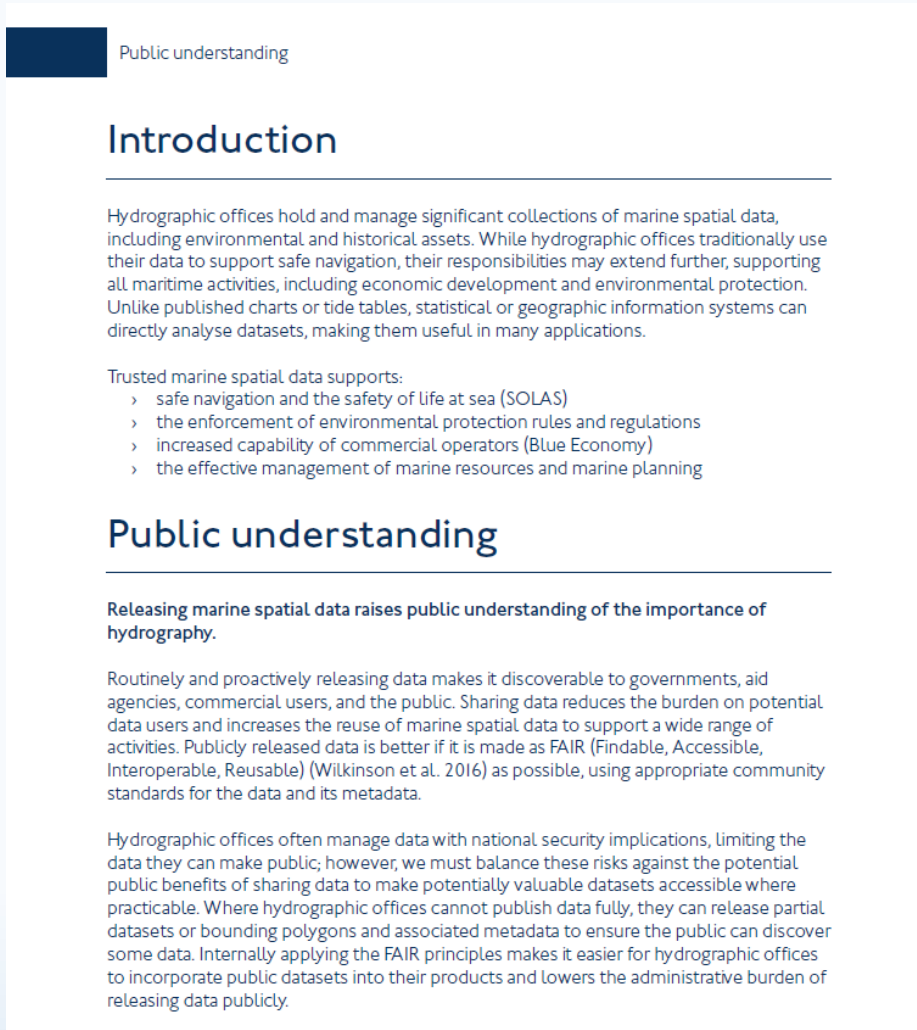
These will be posted on our SWPHC MSDI Working Group Web Page and electronic copies made available for everyone



Data Value Sharing Propositions

Particular credit to:

- Pip Bricher, Paul and Doug from AHO
- Rachel and Stuart from LINZ and
- Tara Martin from the Commonwealth Scientific and Industrial Research Organisation



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.

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 recognise 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.

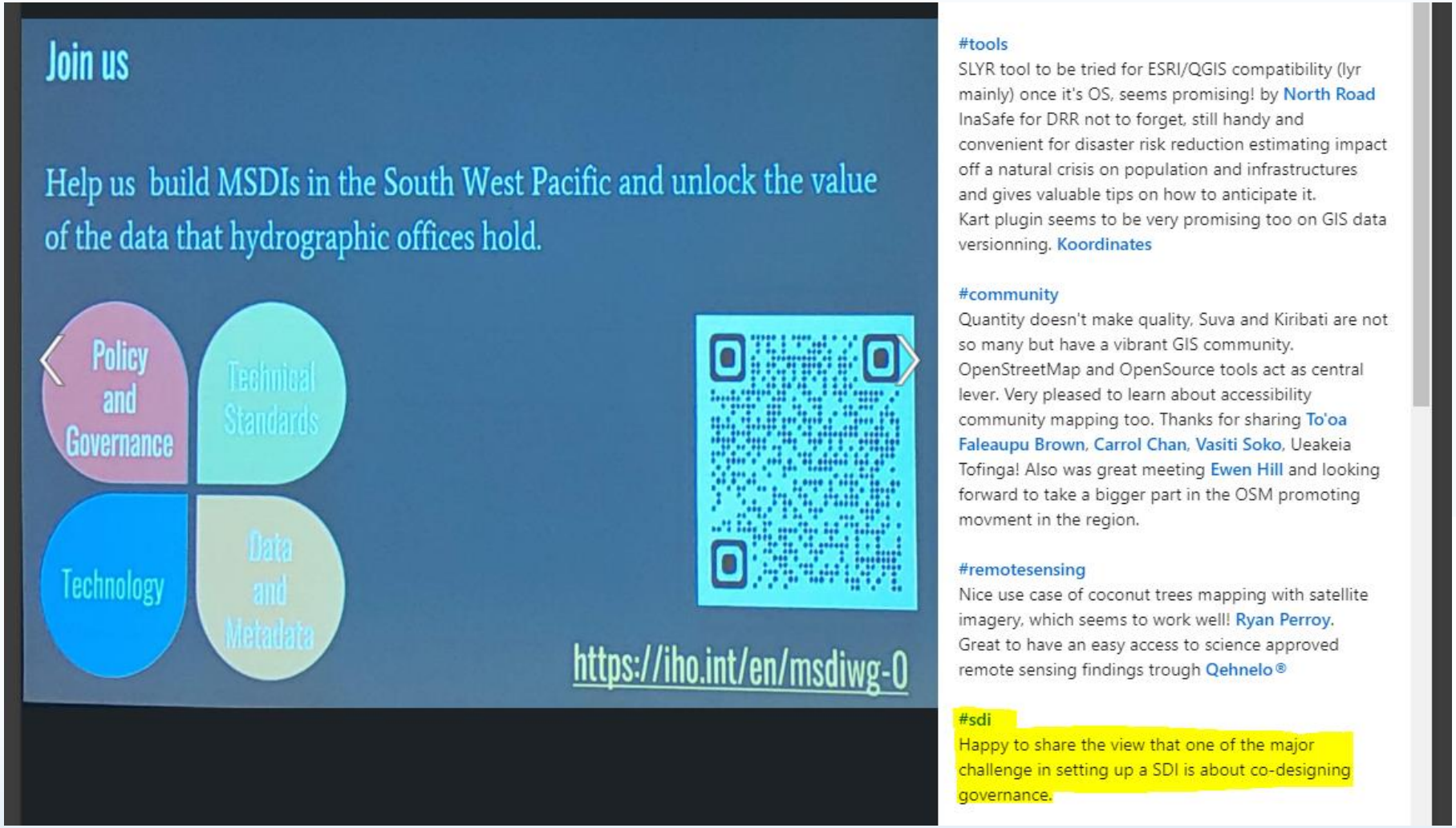
Hydrographic data and its uses beyond navigation:	Food security	Education and capacity development	Safety	Sustainable resources	Environmental sustainability	Public release sovereignty	Heritage
Bathymetry, seabed backscatter, and water column backscatter data can inform fishing industry management, including 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.	✓	✓	✓		✓	✓	

Pacific Geospatial Conference in Fiji – December

Our presentation attracted interest on LinkedIn

MSDI WG highlighted as an important collaboration in co-designing governance



What next

- Continue progress on our actions from SWPHC Work Plan
- Action 19 - Adoption and implementation of UN GGIM-IGIF-H
- Annual review of ToR

SWPHC20 is invited to

1. Note the report
2. Encourage member nations to join and participate in future meetings of the SWPHC MSDIWG