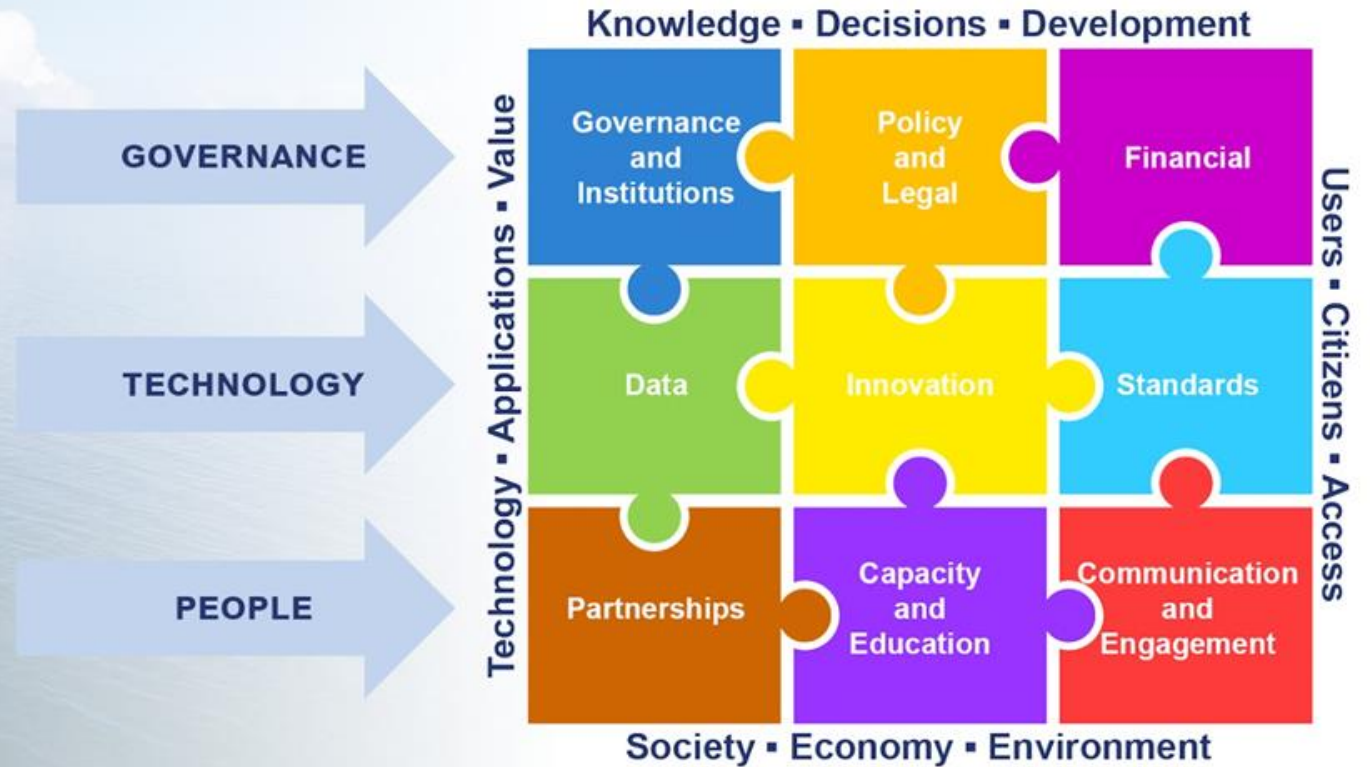


Operational Framework for Integrated Marine Geospatial Information Management (IGIF-H)





The Integrated Geospatial Framework provides a basis and guide for developing, integrating, and strengthening geospatial information management.



Anchored by nine Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.



Our desired future



SUSTAINABLE DEVELOPMENT GOALS





DECADE
OF
ACTION



COVID-19
RESPONSE

White Paper on Readily Available and Accessible (Open) Marine Geospatial Information

A reference on the benefits and challenges of managing and providing accessible marine geospatial information



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Working Group on
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Positioning geospatial information to address global challenges

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Operational Framework for Integrated Marine Geospatial Information Management



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Vision

Integrating water into the global geospatial information
infrastructure ecosystem



Mission



To provide practical guidance that countries can use to enhance the availability and accessibility of marine geospatial information, inclusive of all water-related jurisdictions, and to realize the greatest benefit from their integrated geospatial information management arrangements for the betterment of society, environment, and economy. This Guide expands upon the IGIF's nine strategic pathways where considerations for water might be different or require specific attention.

The idea of this Guide is not to replicate the IGIF but to:

- Provide practical advice and promote best practices and broad perspectives
- Support any body, state, or organization
- Assist implementers of the IGIF Strategic Pathways
- Establish and/or maintain a national geospatial framework
- Ensure the inclusion of water in that framework



Goals



- Facilitate Data Partnerships,
- Increase the use of international Standards,
- Increase Capacity Development Opportunities,
- Ensure Data Interoperability,
- Improve Data Accessibility and Availability,
- Provide Guidance for Emerging Marine Geospatial Programs.



Integrated Geospatial Information Framework-Hydro (IGIF-H) High Level

Two part document

Part One – background, challenges and introduction to value propositions

Part Two – broken down by IGIF Strategic pathways for the water domain

Scope – Oceans, Seas, rivers, waterways/watercourses, lakes, inland waters, wetlands, glaciers...

Part 1

- Overview
- Introduction and Background
- The Main Challenges

Part 2

- A Value Proposition for the Marine Domain
- Introduction
- Governance and Institution
- Legal and Policy
- Data
- Standards
- Partnerships
- Capacity and Education
- Communication and Engagement



IGIF-H Part One



 UN-GGIM

Sessions > Twelfth Session



Twelfth Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)
3 - 5 August 2022

Overview

The twelfth session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) will be held from **3 - 5 August 2022** at the United Nations Headquarters in New York. UN-GGIM, comprising experts designated by the Governments

Documentation

- 12th session documents
- Webcast:
 - 1st Meeting, 3 August 2022
 - 2nd Meeting, 3 August 2022

- The Twelfth UN-GGIM Committee of Experts:
 - Supported the development roadmap in two parts
 - Supported [IGIF-H Part One](#)
- High-level summary, catalyst for change, our desired future, vision, mission, goals and background for the IGIF-H.

Agenda item #13. Marine geospatial information

- ▶ E/C.20/2022/15 Summary [Arabic](#) [Chinese](#) [English](#) [French](#) [Russian](#) [Spanish](#)
- ▶ E/C.20/2022/15/Add.1 [Report](#)
- ▶ Introductory Statement
- ▶ Background documents
 - ▶ Singapore Statement on effective and integrated marine geospatial information management
 - ▶ Operational Framework for Integrated Marine Geospatial Information Management



Operational Framework IGIF-H Part Two





all nine pathways
on the table



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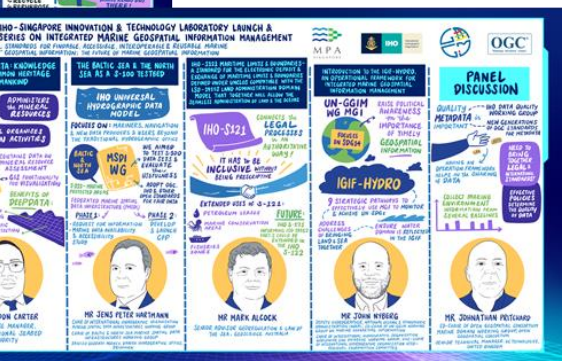
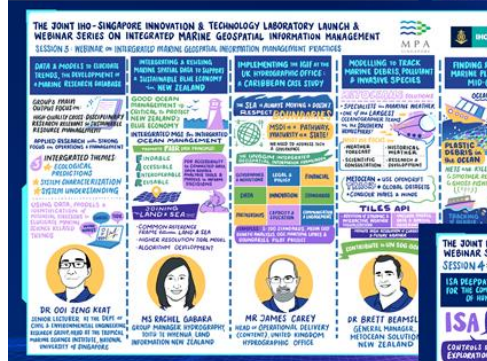
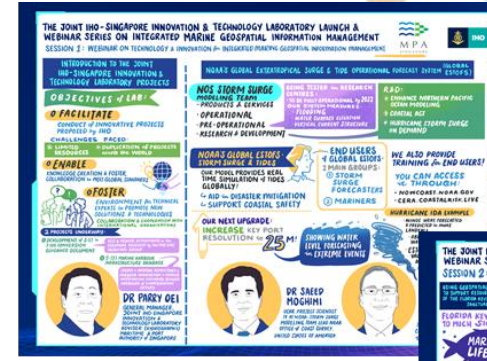
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Value Propositions

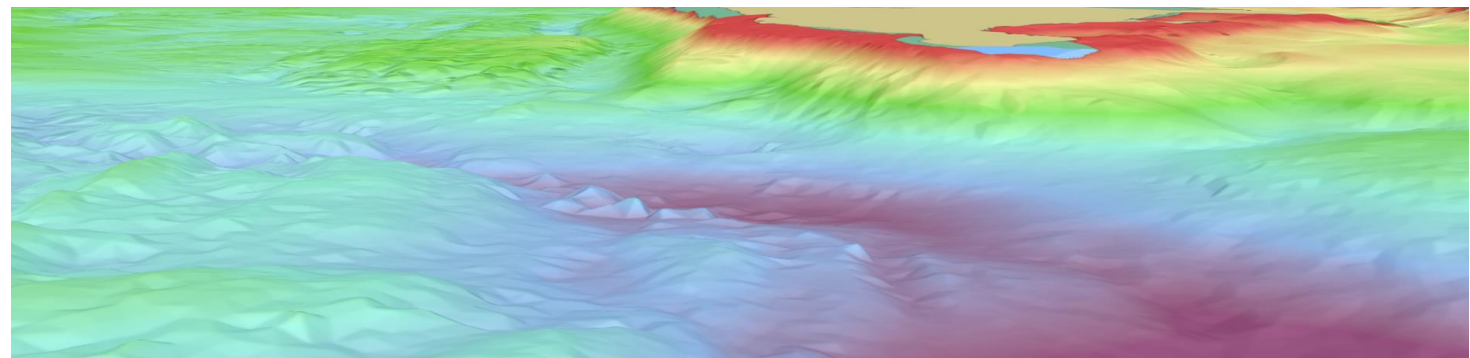
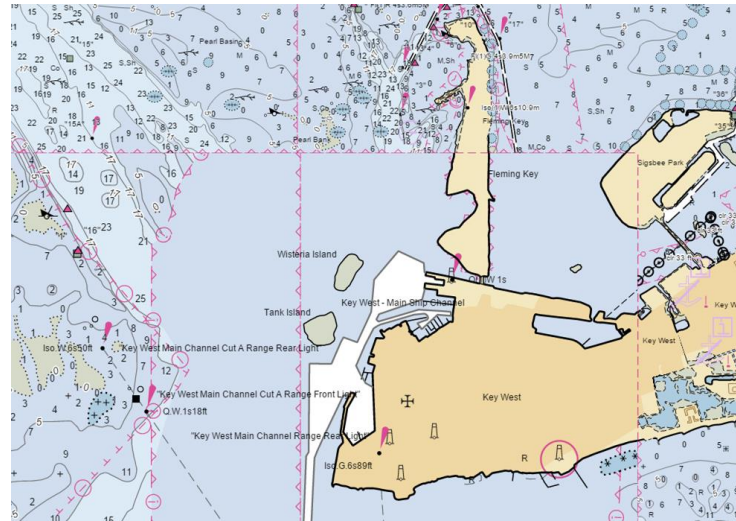
- Nautical Charting and Transportation
- Supporting Resource Management and Planning
- Established Maritime Boundaries
- Subsistence
- Emergency Response and Disaster Management Response
- Integrated Marine Cadastral Systems
- Energy - Oil, Gas, and Marine Resources
- Environmental Protection
- Climate Change
- Scientific Research
- Marine Debris and Ocean Plastics
- Coral Reef Conservation
- Fishery Management



https://ggim.un.org/meetings/2021/WG-MGI_webinar/

Marine Transportation – Nautical Charting and Beyond

- Foundational component of transportation infrastructure
- Improves safety and efficiency for maritime commerce
- Protects the environment

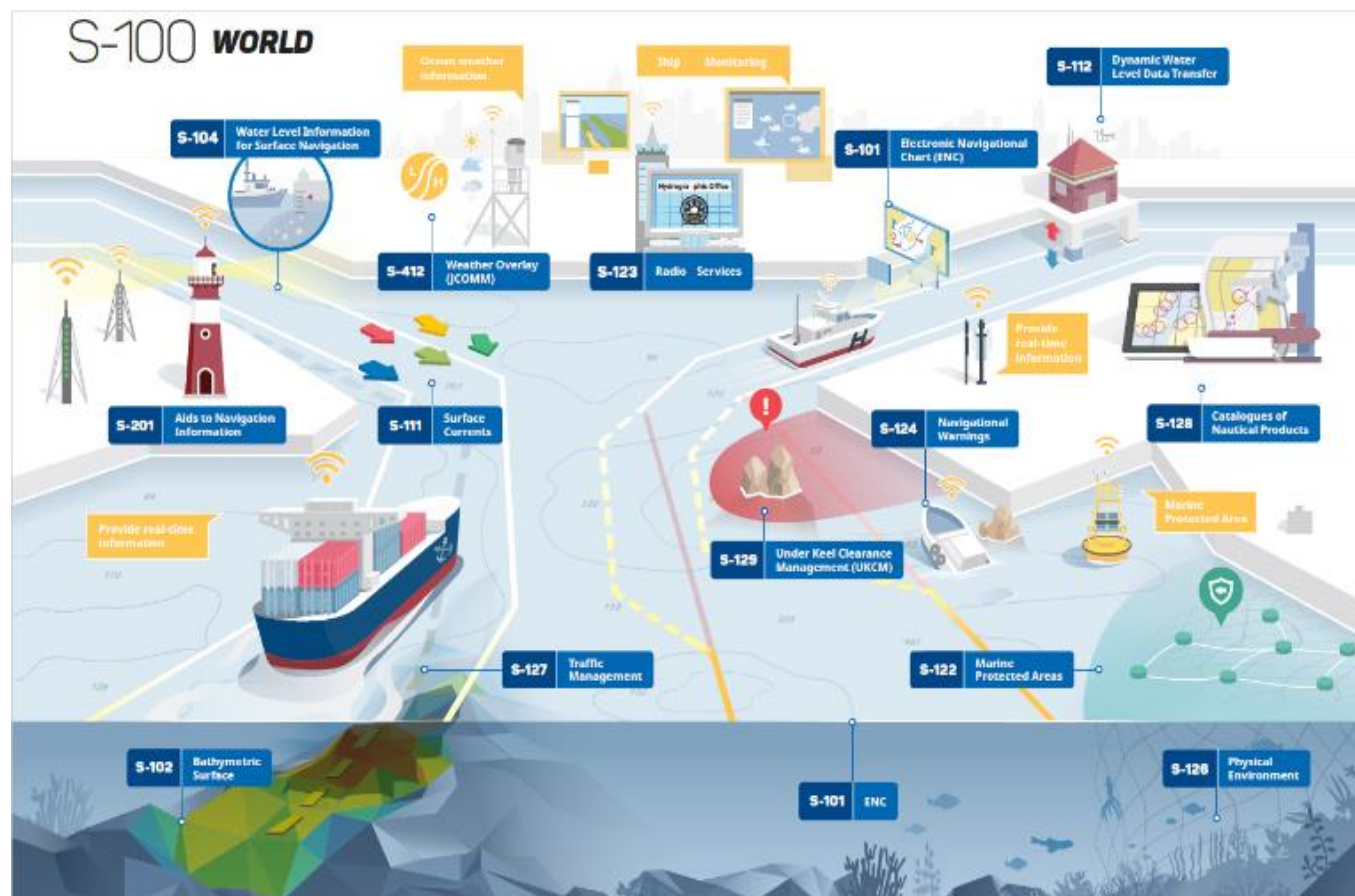




S-100 - the IHO Building blocks



- Provides the **data framework** for the development of the next generation Electronic Navigational Charting products, as well as other digital products required by the hydrographic, maritime and GIS communities
- Leads to a global **consistency** of products
- Internationally recognized framework for the structure and delivery of products for the hydrographic and maritime community



Governance
and
Institutions

National Geospatial Leadership Board Institutional Arrangements Implementation Governance



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POLICY
AND
LEGAL

International Conventions
Non-Navigation Considerations
Data Protection, Licensing and Sharing
Other Primary Policy and Legal
Considerations
Outcomes



IHO WEND-100 Matrix

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	S-101 (ENC)			S-102 (Bathy Surface)			S-104 (Water Levels)			S-111 (Surface Currents)						
	Readiness Level	Readiness Description	Score	Readiness Level	Readiness Description	Score	Readiness Level	Readiness Description	Score	Readiness Level	Readiness Description	Score				
1																
2																
3	Governance and Institutions	Governance and Institutions (A)	The product is part of a documented national or regional institutional plan, custodianship (a managing organization) has been identified and has accepted the management responsibility. All has been agreed at the national authority and RHC level.	11.10	Governance and Institutions (B)	The product is part of a documented national institutional plan, custodianship (a managing organization) has been identified and has accepted the management responsibility. The policy has been endorsed at the national level but NOT at the RHC level.	8.40	Governance and Institutions (A)	The product is part of a documented national or regional institutional plan, custodianship (a managing organization) has been identified and has accepted the management responsibility. All has been agreed at the national authority and RHC level.	11.10	Governance and Institutions (A)	The product is part of a documented national or regional institutional plan, custodianship (a managing organization) has been identified and has accepted the management responsibility. All has been agreed at the national authority and RHC level.				
4	Policy and Legal	Policy and Legal (B)	Product has a documented policy regarding data protection, licensing, sharing and liability. The policy has been endorsed by the national authority but NOT at the RHC level.	8.40	Policy and Legal (B)	Product has a documented policy regarding data protection, licensing, sharing and liability. The policy has been endorsed by the national authority but NOT at the RHC level.	8.40	Policy and Legal (B)	Product has a documented policy regarding data protection, licensing, sharing and liability. The policy has been endorsed by the national authority but NOT at the RHC level.	8.40	Policy and Legal (B)	Product has a documented policy regarding data protection, licensing, sharing and liability. The policy has been endorsed by the national authority but NOT at the RHC level.				
5	Data	Data (C)	Product is supported through national data collection and is NOT regionally agreed as suitable. There is a regular process for data supply to update product that ensures suitable update cycle for product.	5.70	Data (D)	Product has been produced but data is not regularly applied for updates.	3.00	Data (C)	Product is supported through national data collection and is NOT regionally agreed as suitable. There is a regular process for data supply to update product that ensures suitable update cycle for product.	5.70	Data (C)	Product is supported through national data collection and is NOT regionally agreed as suitable. There is a regular process for data supply to update product that ensures suitable update cycle for product.				
6	Financial	Financial (E)	This product is not being considered by any hydrographic office in the region.	0.00	Financial (B)	The product is supported by a business model that includes current funding sources, obligations, financial risks, and future investments has been completed. An agreed upon business case that justifies funding and investment has been completed. The product has a documented, well defined socio-economic value. All has been agreed at the national level, NOT at the RHC level.	8.40	Financial (E)	This product is not being considered by any hydrographic office in the region.	0.00	Financial (E)	This product is not being considered by any hydrographic office in the region.				
7	Innovation	Financial (A) Financial (B) Financial (C) Financial (D) Financial (E)	Product has been produced, but is NOT available for use to influence national technological advances, innovation, and academic uses.	3.00	Innovation (D)	Product has been produced, but is NOT available for use to influence national technological advances, innovation, and academic uses.	3.00	Innovation (D)	Product has been produced, but is NOT available for use to influence national technological advances, innovation, and academic uses.	3.00	Innovation (D)	Product has been produced, but is NOT available for use to influence national technological advances, innovation, and academic uses.				
8	Standards	Financial (E)	Product is built using IHO standard that is in version 2 or earlier (S-102 must be version 2.0.0 or earlier). Standard is considered to be managed by IHO and in the process of being endorsed by the IHO Member States.	5.70	Standards (C)	Product is built using IHO standard that is in version 2 or earlier (S-102 must be version 2.0.0 or earlier). Standard is considered to be managed by IHO and in the process of being endorsed by the IHO Member States.	5.70	Standards (C)	Product is built using IHO standard that is in version 2 or earlier (S-102 must be version 2.0.0 or earlier). Standard is considered to be managed by IHO and in the process of being endorsed by the IHO Member States.	5.70	Standards (C)	Product is built using IHO standard that is in version 2 or earlier (S-102 must be version 2.0.0 or earlier). Standard is considered to be managed by IHO and in the process of being endorsed by the IHO Member States.				
9	Partnerships	Partnerships (C)	The product is NOT distributed through a Regional ENC Center (RENC). Product principles (transboundary arrangements) have NOT been agreed upon at the RHC level. Product stakeholders have been included in product development.	5.70	Partnerships (C)	The product is NOT distributed through a Regional ENC Center (RENC). Product principles (transboundary arrangements) have NOT been agreed upon at the RHC level. Product stakeholders have been included in product development.	5.70	Partnerships (C)	The product is NOT distributed through a Regional ENC Center (RENC). Product principles (transboundary arrangements) have NOT been agreed upon at the RHC level. Product stakeholders have been included in product development.	5.70	Partnerships (D)	Product has been produced but is NOT distributed through a Regional ENC Center (RENC). Product principles (transboundary arrangements) have NOT been agreed upon at the RHC level. Product stakeholders have NOT been included in product development.				
10	Capacity and Education	Capacity and Education (C)	Product availability has NOT been promoted through the RHC, including the needs, values and benefits of the product. Opportunity for training on how to produce and use the product is available throughout the RHC region at a significant cost to Member States.	5.70	Capacity and Education (C)	Product availability has NOT been promoted through the RHC, including the needs, values and benefits of the product. Opportunity for training on how to produce and use the product is available throughout the RHC region at a significant cost to Member States.	5.70	Capacity and Education (C)	Product availability has NOT been promoted through the RHC, including the needs, values and benefits of the product. Opportunity for training on how to produce and use the product is available throughout the RHC region at a significant cost to Member States.	5.70	Capacity and Education (C)	Product availability has NOT been promoted through the RHC, including the needs, values and benefits of the product. Opportunity for training on how to produce and use the product is available throughout the RHC region at a significant cost to Member States.				
11	Communication and Engagement	Communication and Engagement (D)	Product has been produced, but product narrative has NOT been developed. Potential relationships, including advocates, partners, users and third parties have NOT been identified.	3.00	Communication and Engagement (D)	Product has been produced, but product narrative has NOT been developed. Potential relationships, including advocates, partners, users and third parties have NOT been identified.	3.00	Communication and Engagement (D)	Product has been produced, but product narrative has NOT been developed. Potential relationships, including advocates, partners, users and third parties have NOT been identified.	3.00	Communication and Engagement (D)	Product has been produced, but product narrative has NOT been developed. Potential relationships, including advocates, partners, users and third parties have NOT been identified.				
12			Total:	48.30		Total:	51.30		Total:	48.30		Total:	45.60			



Regional Consultations

➤ IGIF-H Part Two:

<https://docs.google.com/document/d/1xkuEBAKSew-ZvLS0pptJjSFkEen7lc486RYyWxKDf1M/edit?usp=sharing>





DECADE
OF
ACTION



COVID-19
RESPONSE

Lessons Learned



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Thank You

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Pearlyn_pang@mpa.gov.sg

