Marine Data Governance

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NATIONAL GEOSPATIAL NGA INTELLIGENCE AGENCY

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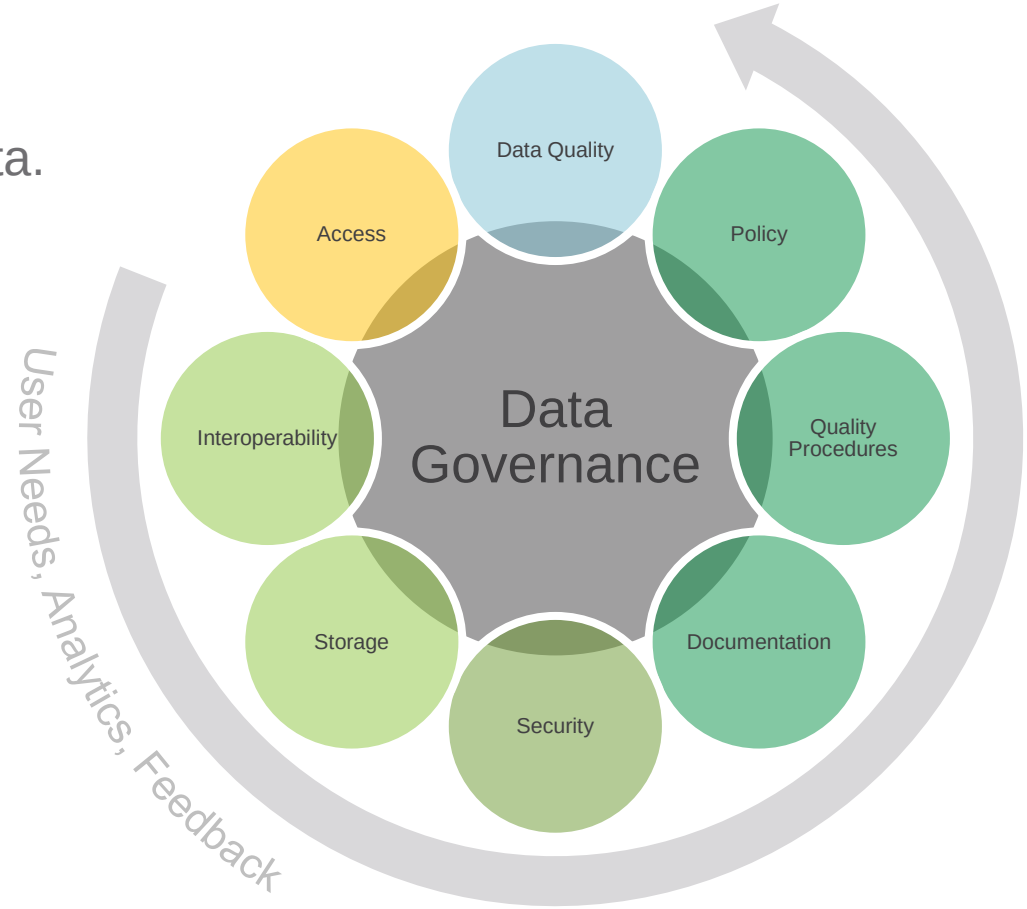
Data Governance Overview

Objective

- Facilitate the handling, accessibility, and quality of data.

General Data Governance Components

- Data Quality
- Policy
- Quality Procedures
- Documentation
- Security
- Storage
- Interoperability
- Access



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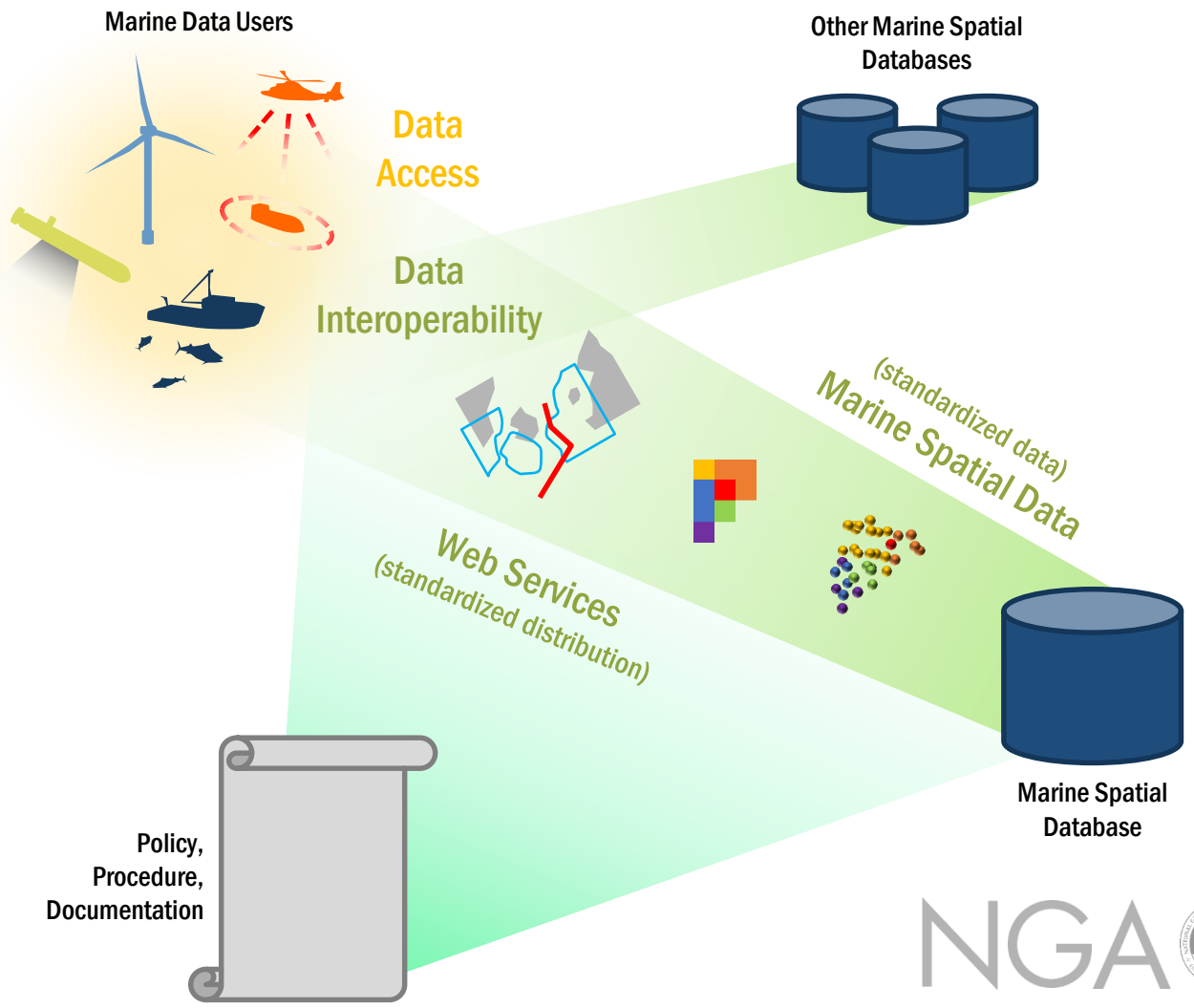
Policies in a Data Governance Model

Policies drive the data governance model.

Policies can be executive in nature or embedded within each component of the model.

Sound policies and handling procedures lead to high quality and highly accessible data.



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Integral Bodies for Marine Data Governance

UN Committee of Experts on Global Geospatial Information (UN-GGIM)

- Working Group on Marine Geospatial Information

IHO Marine Spatial Data Infrastructures Working Group (MSDIWG)

IMO/IHO Harmonization Group on Data Modelling (HGDM)

Open Geospatial Consortium (OGC) Marine Domain Working Group (DWG)

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UN-GGIM Shared Guiding Principles

The Statement of Shared Guiding Principles for Geospatial Information Management.

- Preamble (e): “it is desirable that guiding principles are **incorporated** in the **institutional frameworks** that **govern geospatial information organizations** and **understood at all political levels** and by **all stakeholders** in national authorities.”
- Innovation (e): “Open data: where feasible adopt **policies** that **maximize access** to and use of **open**, **free** and **unrestrictive geospatial information** for **innovation**, **efficient** and **effective decision making** and a spatially enabled society.”

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UNITED NATIONS INITIATIVE ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

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Slide Information *- http://ggim.un.org/UNGGIM-wg2/*
Logo Source *- http://www.opengeospatial.org/unggim*

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UN-GGIM Shared Guiding Principles

Governance

- (f) Use of and adherence to geospatial standards
- (g) Ownership and accountability
- (h) Transparency
- (i) Respect and confidentiality
- (j) Standards of service
- (k) Institutional framework
- (l) Expertise
- (m) **International cooperation and harmonization**
  - "engage in bilateral and multilateral cooperation in geospatial information management to foster **effective** and **efficient geospatial data management systems** in all Member States. Harmonization of national geospatial data and services at **regional** and **global levels** is encouraged in order to meet the needs of supranational users."

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UN-GGIM Working Group on Marine Geospatial Information

Newly established: AUG 2017

Objectives

- Play a leading role at the policy level by raising political awareness and highlighting the importance of reliable, timely and **fit-for-purpose marine geospatial information** to support the **administration**, **management** and **governance** of the **marine environment**;
- Encourage the use of **internationally agreed-upon geospatial information frameworks**, **schemas**, **systems** and established **standards** to improve the growing inter-dependent relationships between people and the marine environments; and
- Support the Committee of Experts in the development of **norms**, **principles**, **guides** and **standards** to increase significantly the **availability** of **high-quality**, **timely** and **reliable geospatial information** including any regional capacity development initiatives.

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Slide Information *- https://www.iho.int/mtg_docs/circular_letters/english/2017/Cl47.pdf*
Logo Source *- http://www.opengeospatial.org/unggim*

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Marine Spatial Data Infrastructure (MSDI)

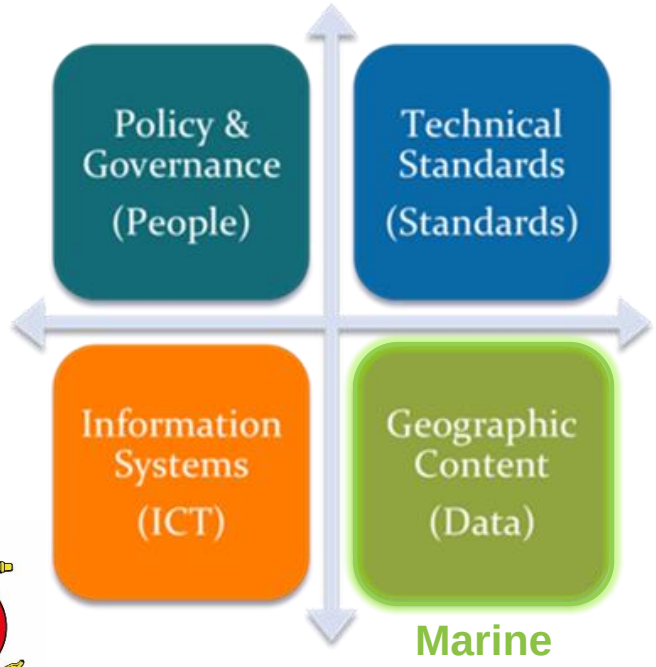
MSDI

- Element of SDI focused on the **marine input**.
- A MSDI is not a collection of hydrographic products, but an **infrastructure** that promotes **interoperability of data at all levels** (e.g., national, regional, international).
  - **Discoverability**
  - **Accessibility**
  - **Interoperability**
  - **Data-centricity** (Hydrographic Offices)
- Supports **wider**, **non-traditional user-base** with **marine data** that is typically used as source data for navigation products.

IHO Marine Spatial Data Infrastructures Working Group (MSDIWG)

- International Hydrographic Organization (IHO) working group to deliver IHO MSDI-related policy objectives.[1]
- IHO Publication **C-17**, *Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices*

MSDI Pillars/Components



1 - *https://www.iho.int/mtg_docs/com_wg/MSDIWG/MSDIWG8/MSDIWG8-01.4.4b-MSDIWG_white_paper.pdf*
Slide information and Image Credit *- (DRAFT) IHO Publication C-17, Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices, Ed 2.0, April 2016*
Logo Source *- https://www.iho.int/iho_pubs/various/Iho_colored_jpg.rar*

OGC Marine DWG

Mission

- **"Broaden the use** of **marine data** through the understanding of the **interoperability-related requirements** for relevant use cases." [1]

Role

- "Serve as a **forum** within **OGC** for **marine data issues**; to present, **refine** and **focus interoperability-related issues** to the Technical Committee; and to serve where appropriate as a **liaison** to other industry, government, independent, research, and standards organizations active within the **marine domain**." [1]

Select Activities

- "Serve as OGC TC **focal point** for **complementary organizations** that are working on **MSDI best practices**, such as the **IHO MSDI Working Group**." [1]
- "Discuss the content of a **conceptual model** for **MSDI**." [1]

IHO Circular Letter 53/2016

- Establishment of a Memorandum of Understanding between the IHO and the OGC.[2]

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1 *- https://portal.opengeospatial.org/files/?artifact_id=70212*
2 *- https://www.iho.int/mtg_docs/circular_letters/english/2016/Cl53e.pdf*
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IMO/IHO Harmonization Group on Data Modelling (HGDM)

As requested by the IMO or the IHO, HGDM should:

- "consider matters related to the **framework for data access** and **information services** under the scope of SOLAS, using as a **baseline IHO's S-100 standard**, with a view to **harmonize** and **standardize**:
  - **formats** for the **collection**, **exchange** and **distribution** of **data**;
  - **processes** and **procedures** for the **collection**; and
  - development of **open standard interfaces**; and
- review the results of studies by the IMO, the IHO and other related organizations which address aspects of access to information services under the scope of SOLAS, and advise the IMO and the IHO as to whether they are compatible with the e-navigation concept **taking into account** the **identified user needs** as they exist at the time".

IMO INTERNATIONAL MARITIME ORGANIZATION

NGA

Slide information *- https://www.iho.int/mtg_docs/com_wg/HSSC/HSSC8/HSSC8-07-2B_Comments-on-HSSC8-07-2A.pdf*
Logo Sources (IHO, IMO) *- https://www.iho.int/iho_pubs/various/Iho_colored_jpg.rar, http://www.imo.org/EN/Pages/Default.aspx*

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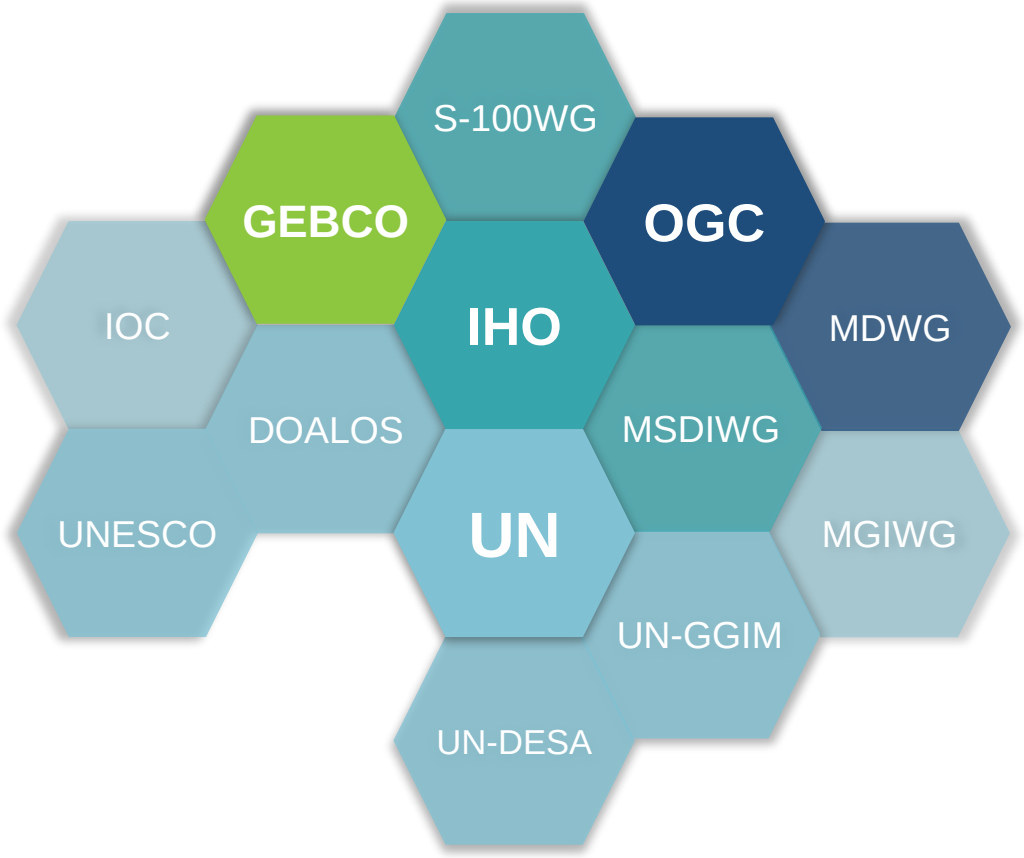
International Marine Data Governance



Graphic Reference *- J. Pritchard, "UN-GGIM, MGIWG &IOC", Presentation, 104th OGC Technical Committee, Southampton, United Kingdom, 12 September 2017*

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