

# MALAYSIA

## NATIONAL HYDROGRAPHIC CENTRE



**First Expert Meeting of the UN-GGIM & IHO Joint Working Group on Marine Geospatial Information**  
**with the theme “Advancing Integrated Marine Geospatial Information Management”**

**Chiang Mai, Thailand**  
**4 – 8 May 2026**

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# National Authority & International Mandate



## The Authority

Hydrographic matters, marine geospatial data and charting of Malaysian Waters authority under the National Hydrographic Centre

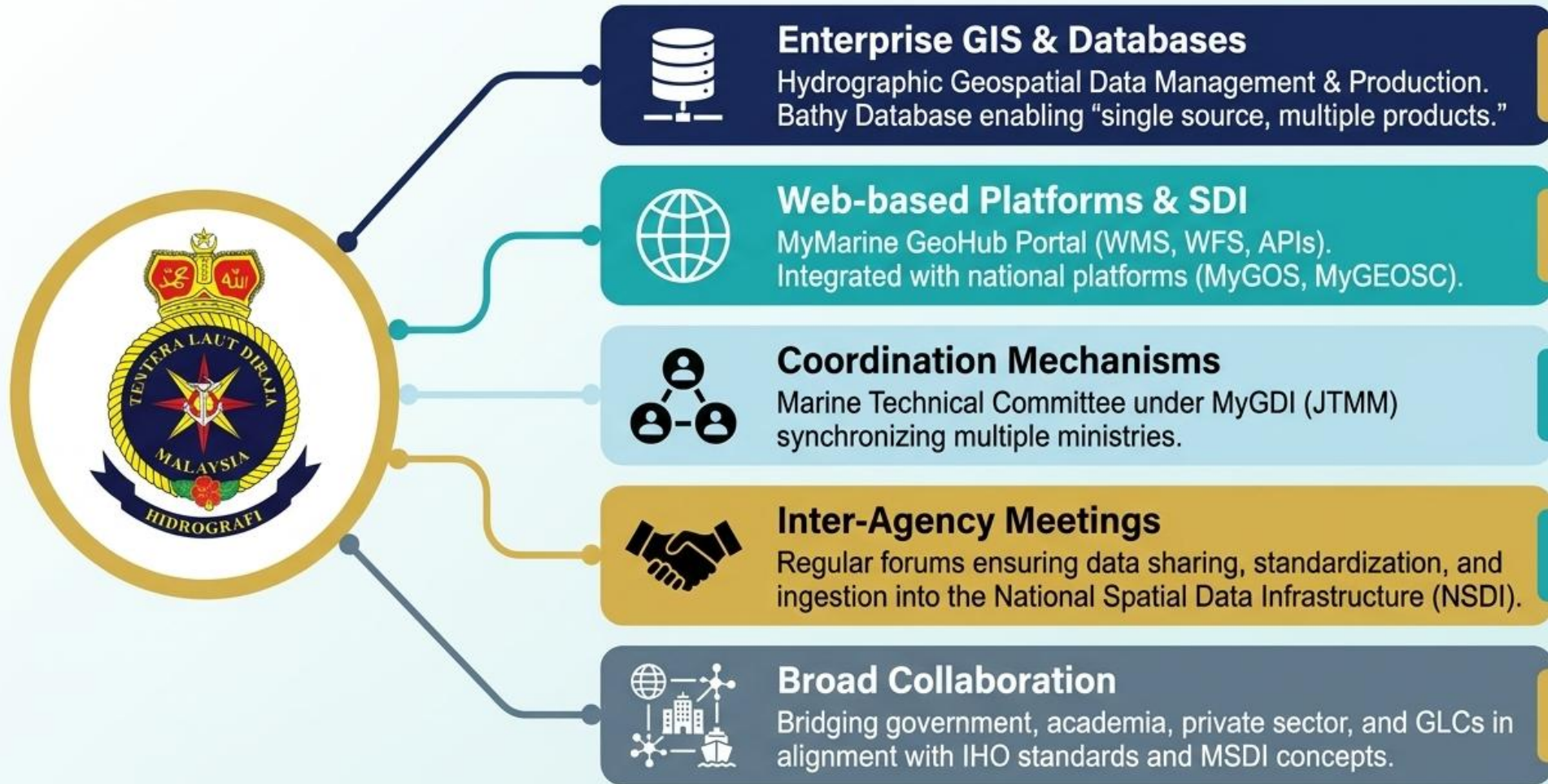
## The Ecosystem

Collaborates alongside multiple national agencies (e.g., JUPEM, NAHRIM, Marine Department, and academia) under unified geospatial governance.

## The Global Role

Fulfills international obligations and drives regional cooperation frameworks for a trusted, secure data environment.

# Malaysia's Marine Geospatial Framework



# Governance Architecture: National SDI in Malaysia



# The Scale of Integration: MyMarine GeoHub

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Ministries & Agencies

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Thematic Categories

66

Core Datasets



## Navigation & Safety

Shipping Lanes/Fairways

Wreck/Rock/Obstruction

AtoN



## Environment & Science

Oceanography

Marine Meteorology

Marine Protected Areas

Marine Geology



## Boundaries & Infrastructure

Maritime Boundaries

Coastline

Bathymetry

Offshore Development



## Socio-Economic

Marine Activities

Geographical Names

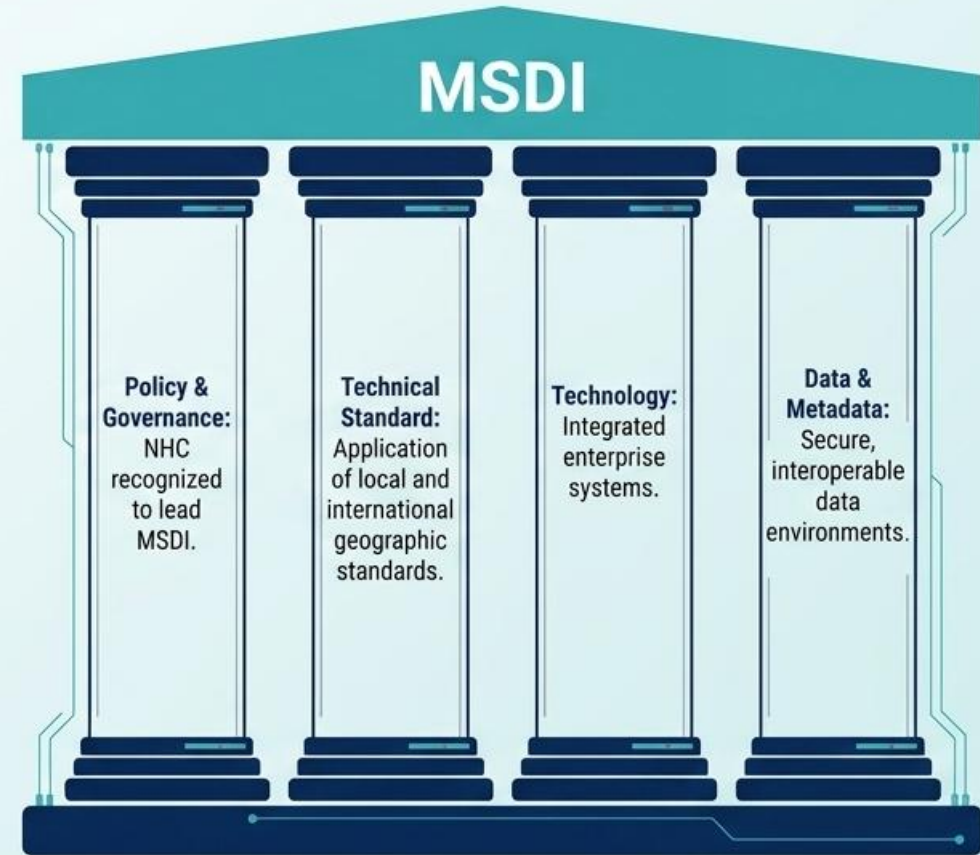
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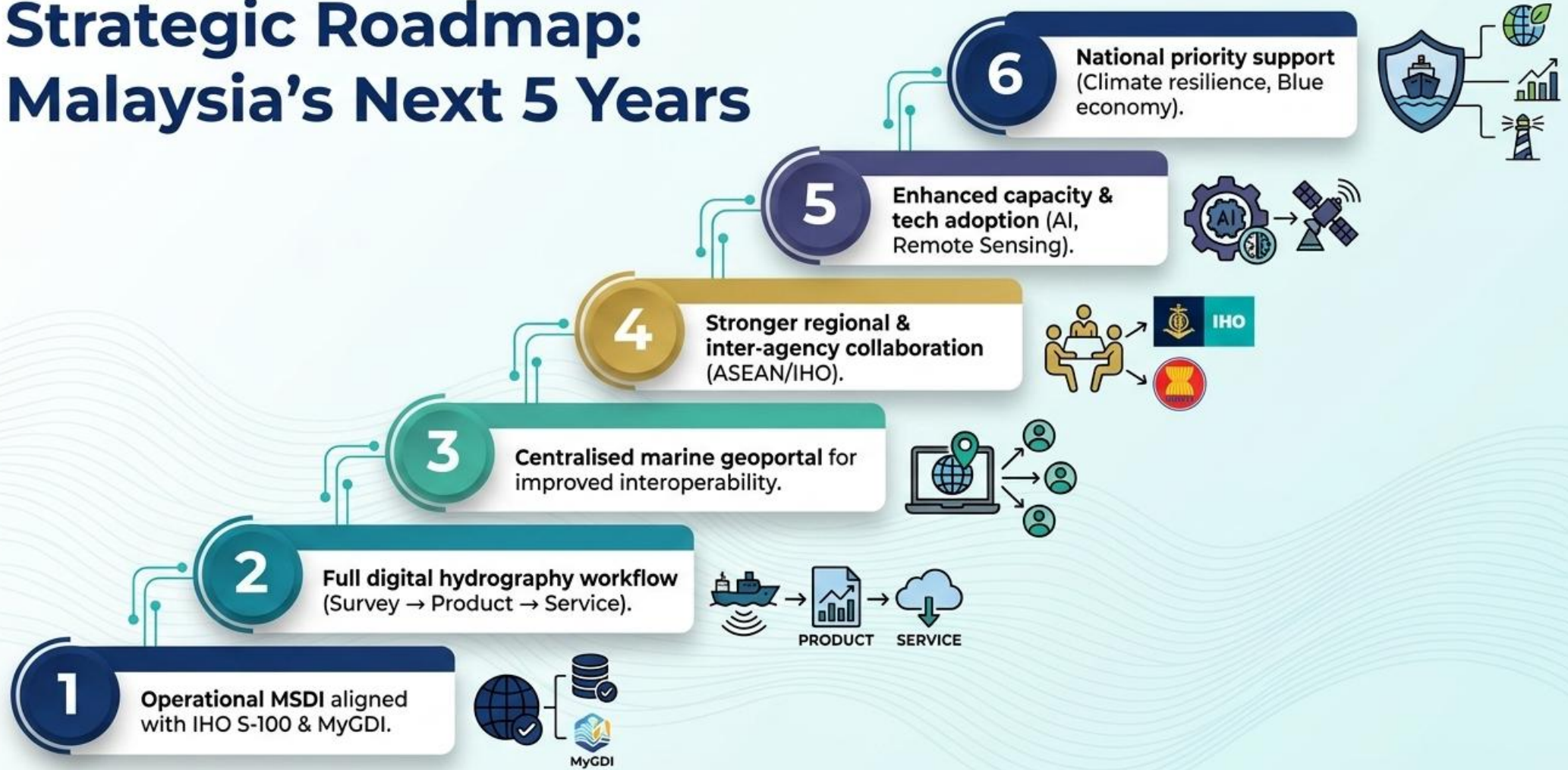


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# MSDI Implementation & The Four Pillars



# Strategic Roadmap: Malaysia's Next 5 Years



*\*Detailed breakdown of strategic aims in the following sections.*

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# Operationalizing the Future: S-100 & Digital Workflows

## Aim 1: Operational MSDI



Achieving seamless, standard-compliant integration of global maritime data rules directly into domestic spatial frameworks.

## Aim 2: Full Digital Workflow



**Survey**  
(Vessels &  
Sensors)

**Product**  
(Automated  
processing &  
S-100 generation)

**Service**  
(Dynamic cloud  
delivery to  
end-users)

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# Centralization & Regional Collaboration



A frictionless data-sharing gateway for domestic inter-agency interoperability.



## Driving interoperability beyond borders

Driving interoperability to International Hydrographic Organization and attribute them interoperability to region borders.



## Strengthening joint working groups and regional capacity

Strengthening joint working groups and regional capacity to capitalise on opportunities surrounding operations and certify course programs.

# Technology as a Catalyst for National Priorities



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# Navigating the Path to the Ideal State

Targeted, solvable challenges recognized over the 5-year roadmap.

Governance & Coordination	Funding Sustainability	Data Quality & Availability	Skills & Capacity	Tech Constraints
Aligning diverse mandates across 24 distinct agencies into a single agile framework.	Securing long-term investment for continuous S-100 standard integration and tech upgrades.	Standardizing legacy datasets to meet modern interoperability requirements.	Upskilling personnel in AI, automated processing, and advanced digital hydrography.	Bridging the gap between current enterprise systems and next-generation cloud delivery models.



# International Frameworks & Requested JWG Support

## Status of UN-IGIF & IHO C-17

### Progress Checklist



**Step 1:**  
Active interactions with UN-GGIM/IHO working groups.



**Step 2:**  
Standards successfully adapted for MyMarine GeoHub architecture.



**Step 3:**  
Future adoption plans fully aligned with the 5-year roadmap.

## Catalytic Support Requirements

- ✓ Guidance and methodology for S-100 integration.
- ✓ Targeted capacity development and technical training.
- ✓ Peer exchange and active communities of practice.
- ✓ Access to actionable case studies, templates, and execution examples.

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# Safer Navigation. Sustainable Oceans. Shared Prosperity.

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Through the comprehensive framework of MyGDI and the dedicated leadership of the NHC, Malaysia is not just managing marine data, we are engineering the digital infrastructure required to secure the Blue Economy and advance global maritime safety.

National Hydrographic Centre  
Royal Malaysian Navy



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# THANK YOU

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🌐 <https://hydro.gov.my/>

*follow us*   



International  
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