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# IGIF-MSDI Maturity Roadmap

**“Quick-Start Guide for undertaking an IGIF-aligned MSDI”**

**Mr Tim Lewis, UKHO**





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# IGIF-MSDI Maturity Roadmap

**“Aims for this brief:**

- 1. Provide an overview of Quick-Start Guide for undertaking an IGIF-aligned MSDI”**
- 2. Highlight links to the IHO MSDI work**
- 3. Promote debate on next steps for MSDI in RSAHC**

# MSDI Four Pillars: IHO C-17 (2009)



**IHO**

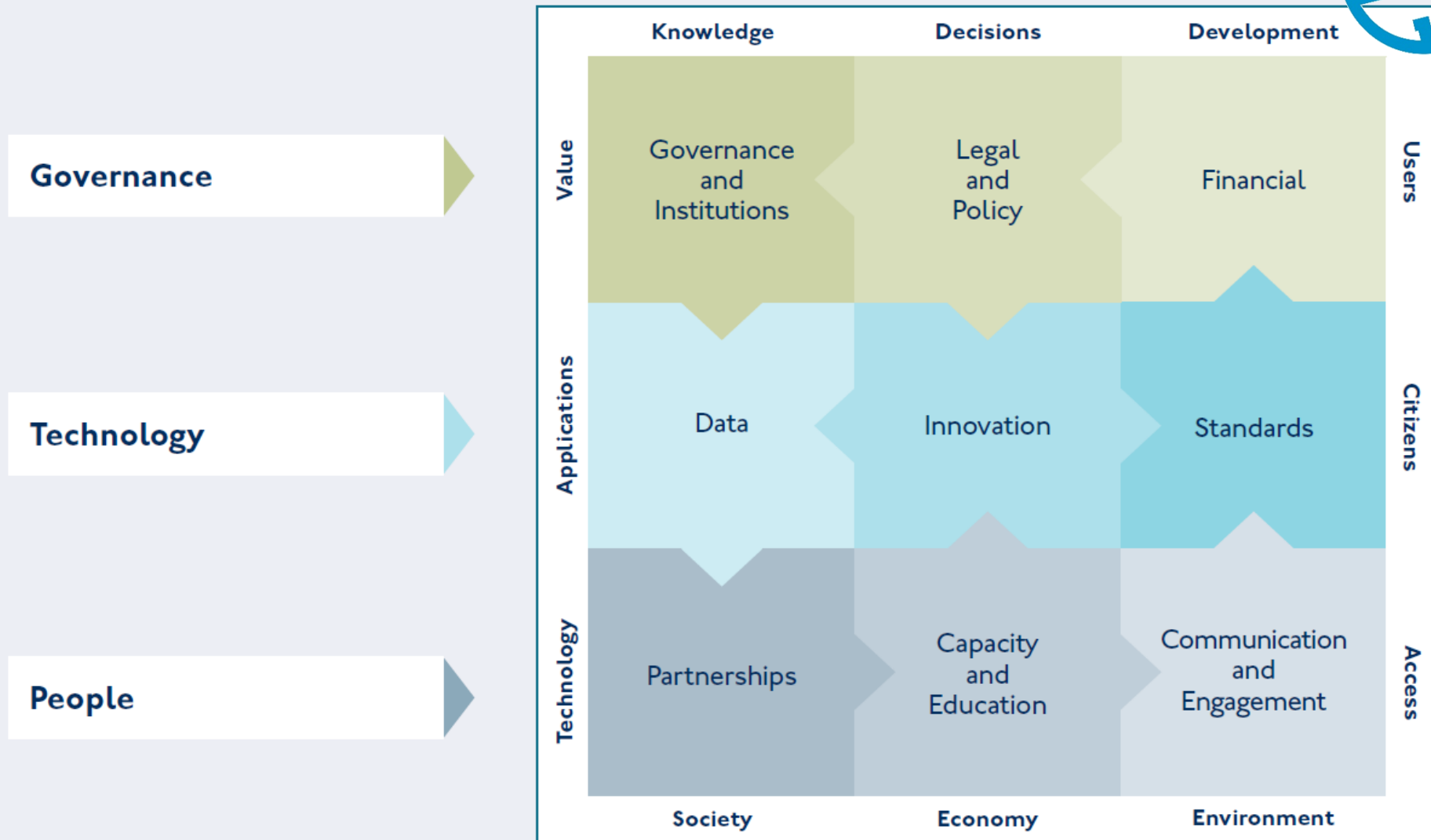
International  
Hydrographic  
Organization



# The UN-GGIM IGIF Nine Pathways model



**UN-GGIM**  
UNITED NATIONS INITIATIVE ON  
GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT




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**UN-GGIM**  
UNITED NATIONS INITIATIVE ON  
GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT


381 Pages of IGIF Resources




UN MGI-WG




IGIF-Hydro



Overarching Strategic Framework




"Solving the Puzzle"




Implementation Guides: Strategic Pathways #1 to #9

Other global Frameworks under the IGIF umbrella where applicable ...  
Including the *Fundamental Geospatial Data Themes* and the *Global Statistical Geospatial Framework*



Publication C-17: Marine Spatial Data Infrastructures



MSDIWG Body of Knowledge



**IHO**  
International Hydrographic Organization

Over 400 Pages of MSDI Resources




IHO MSDIWG (Global)




Regional Hydrographic Commission MSDIWG Papers & Resources

*Varies across IHO regions*


Not all connections are shown




Other DWGs & SWGs



Marine DWG




OGC Technical and Planning Committees




Open Standards




**Open Geospatial Consortium**




**IGIF-MSDI Maturity Roadmap**




IGIF-Aligned Country Action Plan




IGIF-Aligned Socioeconomic Plan




World Bank Financing




IGIF Alignment to Policy Drivers




SDI Diagnostic Toolkit




**THE WORLD BANK**  
IBRD • IDA | WORLD BANK GROUP




Regulations & Directives




Industry Code(s) of Conduct




Laws & Statutes



National Ethics Framework




Political Officials



National (Geo)Data Strategy or Vision

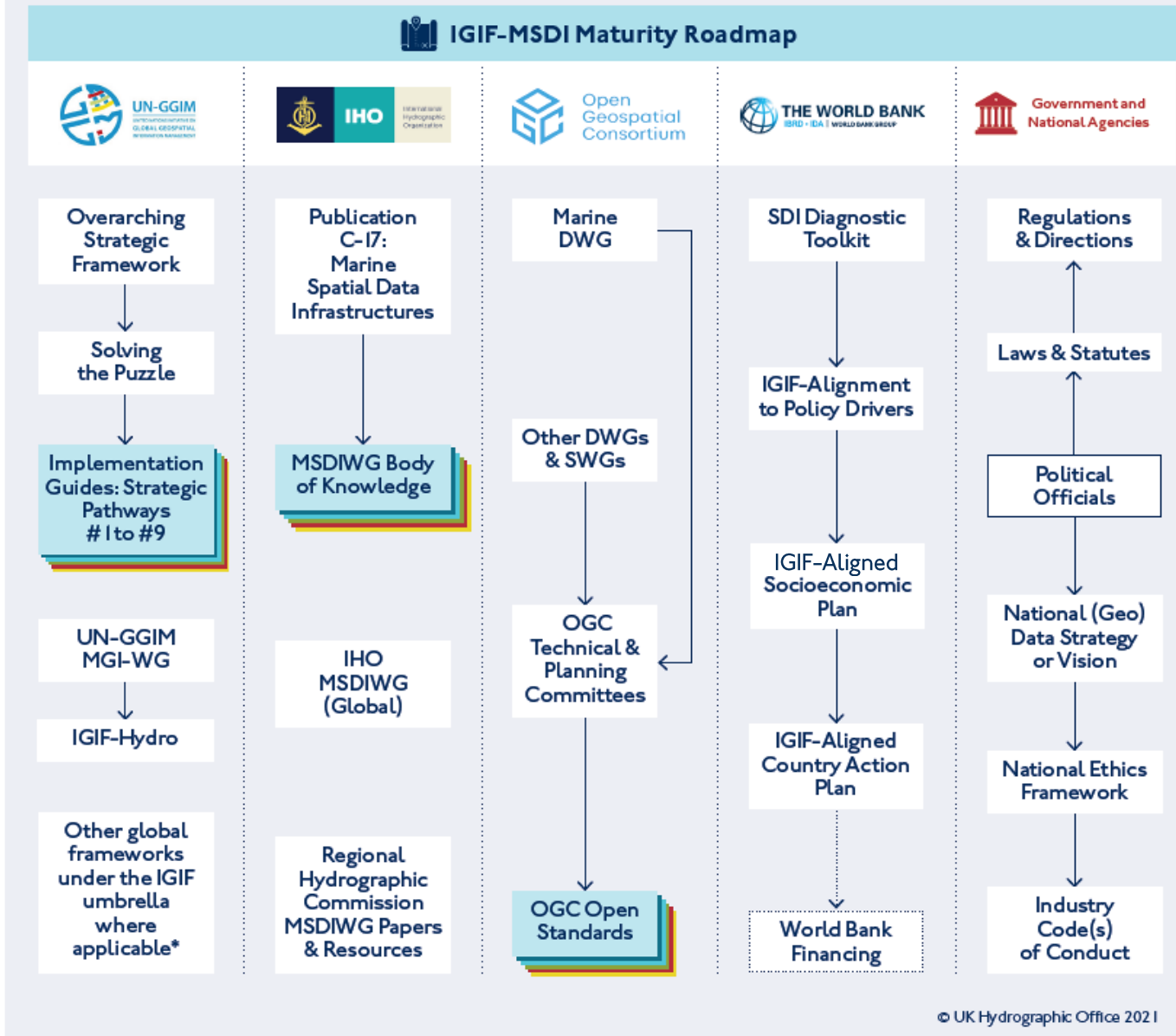
*Examples only*



**Government and National Agencies**

*\* Where this is applicable*

# (Simplified) Ecosystem of IGIF and MSDI Resources



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\*Including the Fundamental Geospatial Data Themes and the Global Statistical Geospatial Framework



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# The Context of the UN-GGIM, IHO, OGC, and World Bank

## Organisation



**WHY?**  
Socio-economic motivations and inclusive benefits from global geospatial information management

**WHAT?**  
Developing a spatial data infrastructure suited for unlocking the value in marine and maritime data

**HOW?**  
Implementing OGC Standards to maximise the capabilities of Tech via the cost benefits of interoperability

**Overarching Strategic Framework**  
**Solving the Puzzle**

**Implementation Guide: 9 Strategic Pathways**

**Country-Level Action Plans (Incl. When? Who?)**



**Representation at UN-GGIM MGI-WG and OGC Marine DWG**

**Publication C-17 on the MSDI Concept**

**MSDIWG Body of Knowledge**



**Representation at UN-GGIM MGI-WG and IHO MSDIWG**

**OGC TC/PC, DWG and SWG Meetings**

**OGC Open Standards**

## Foundation Elements: Financing & National Ecosystem



**SDI Diagnostic Toolkit**

**Laws & Statutes**

**Alignment to Policy Drivers**

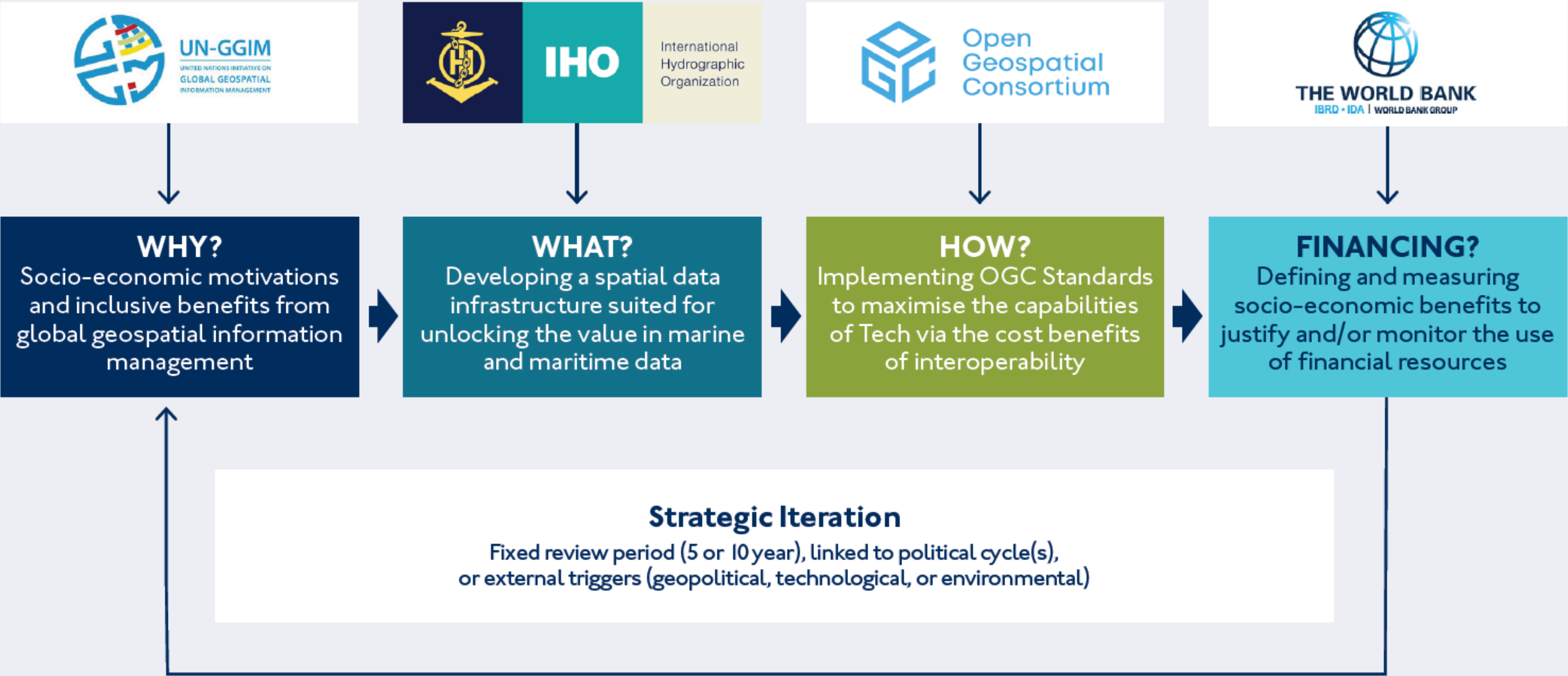
**National Geodata Policies**

**Socio-Economic Plan**

**Industry Ways of Working**

**Country Action Plan**

# Holistic Approach to an IGIF-Aligned MSDI

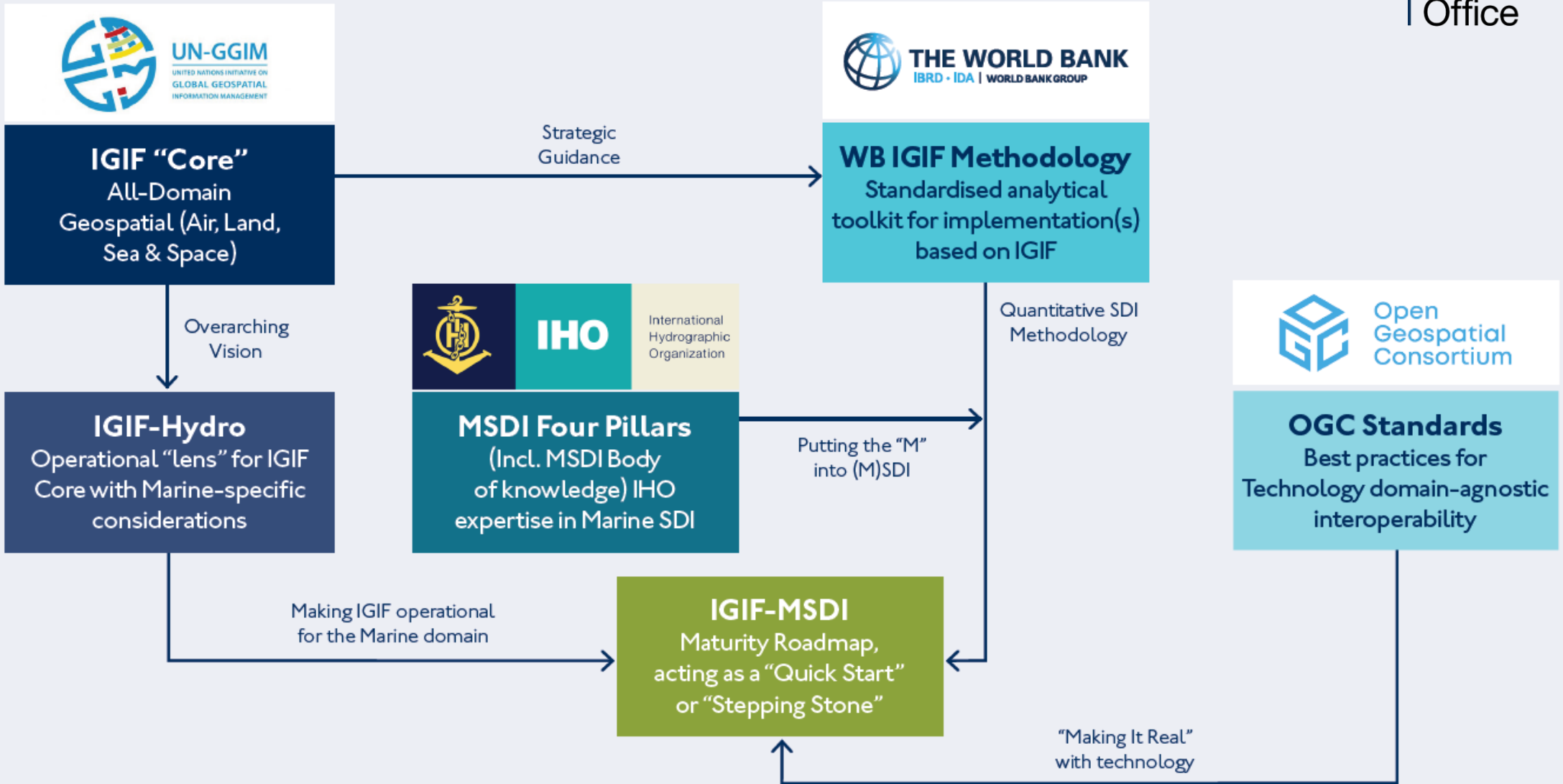




# Key inputs for an IGIF-Aligned MSDI



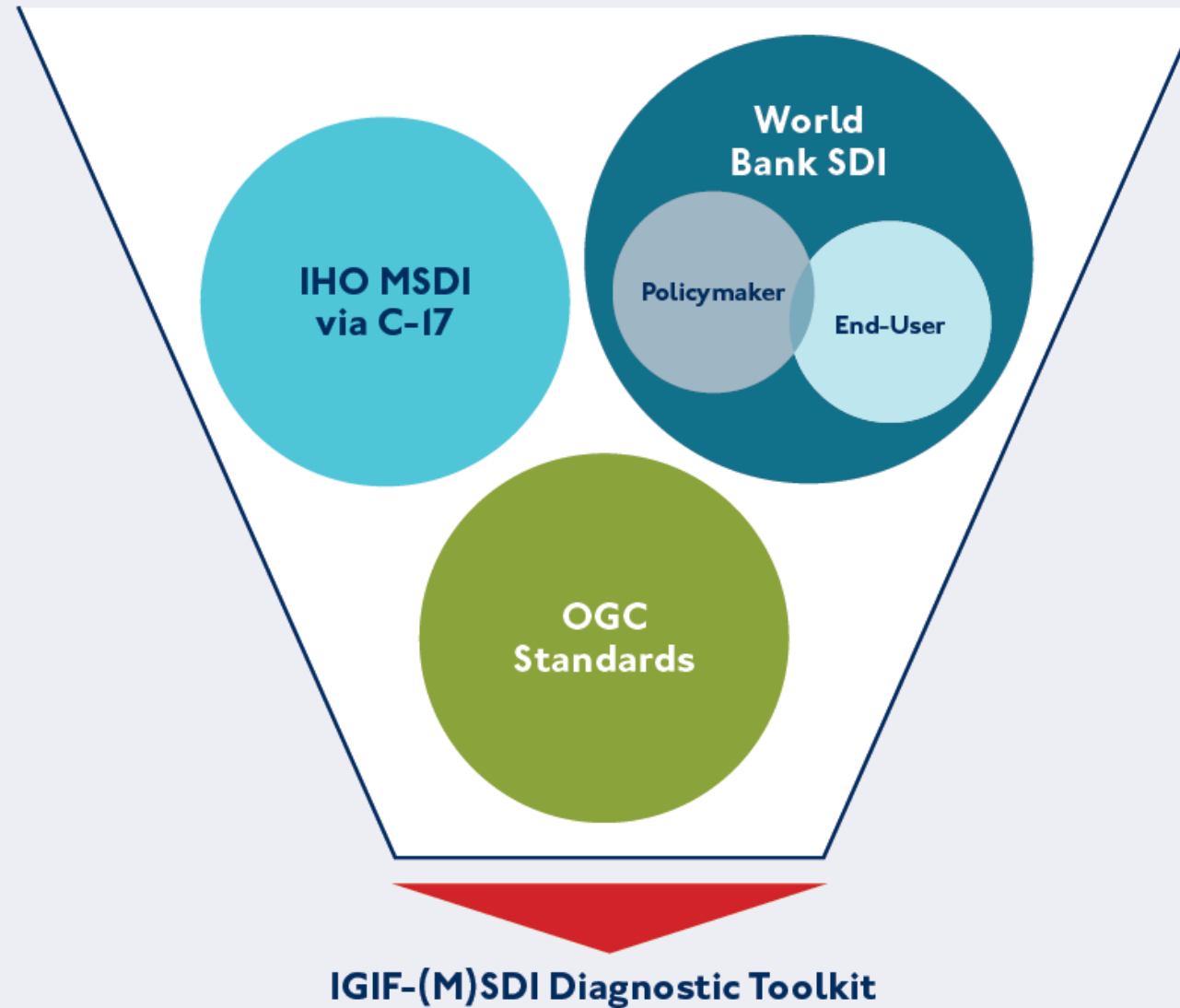
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# Components of the IGIF-(M)SDI Diagnostic Toolkit



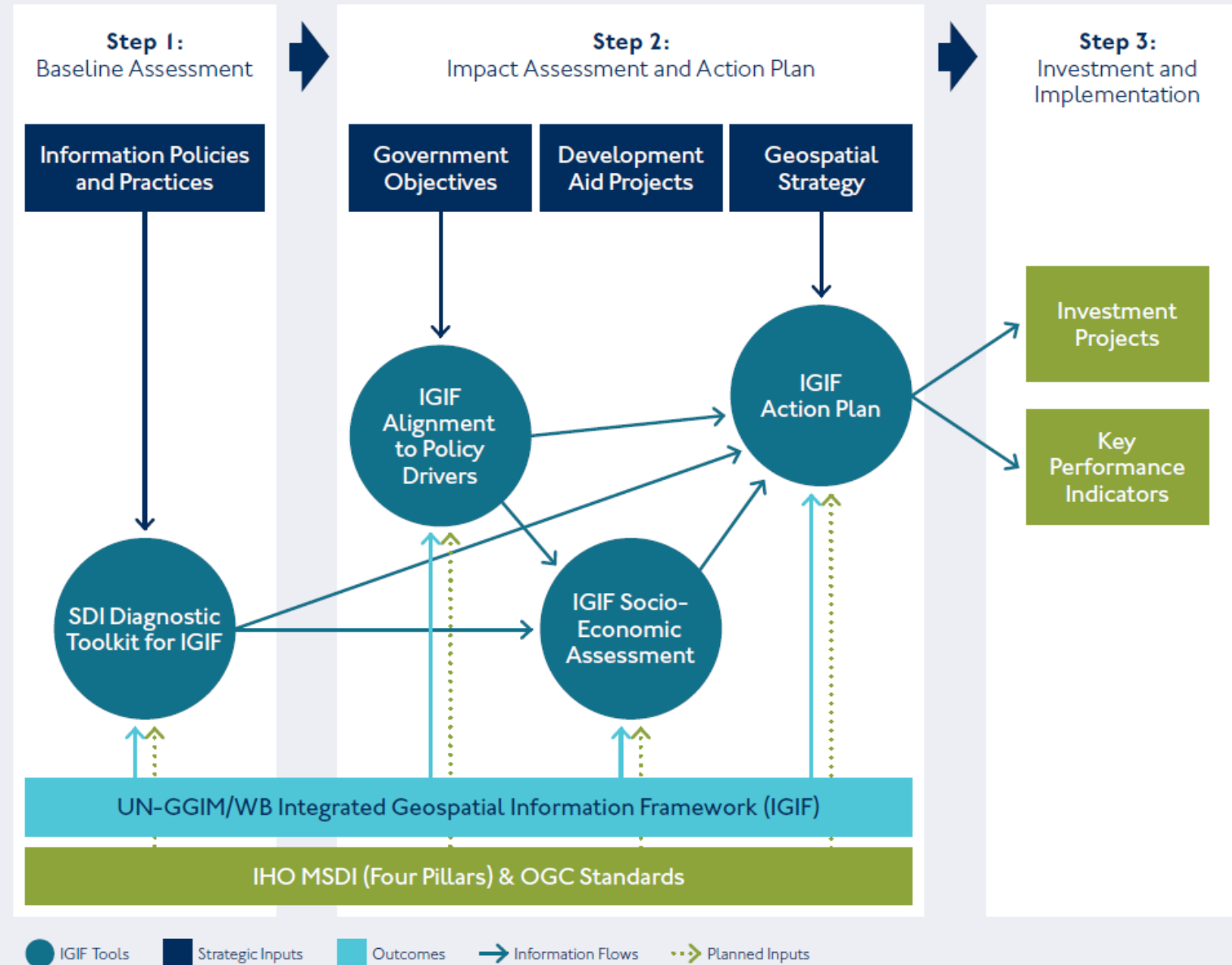
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## World Bank IGIF Methodology (with IHO and OGC inputs)



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# Embedding an IGIF-Aligned MSDI into wider Geospatial considerations



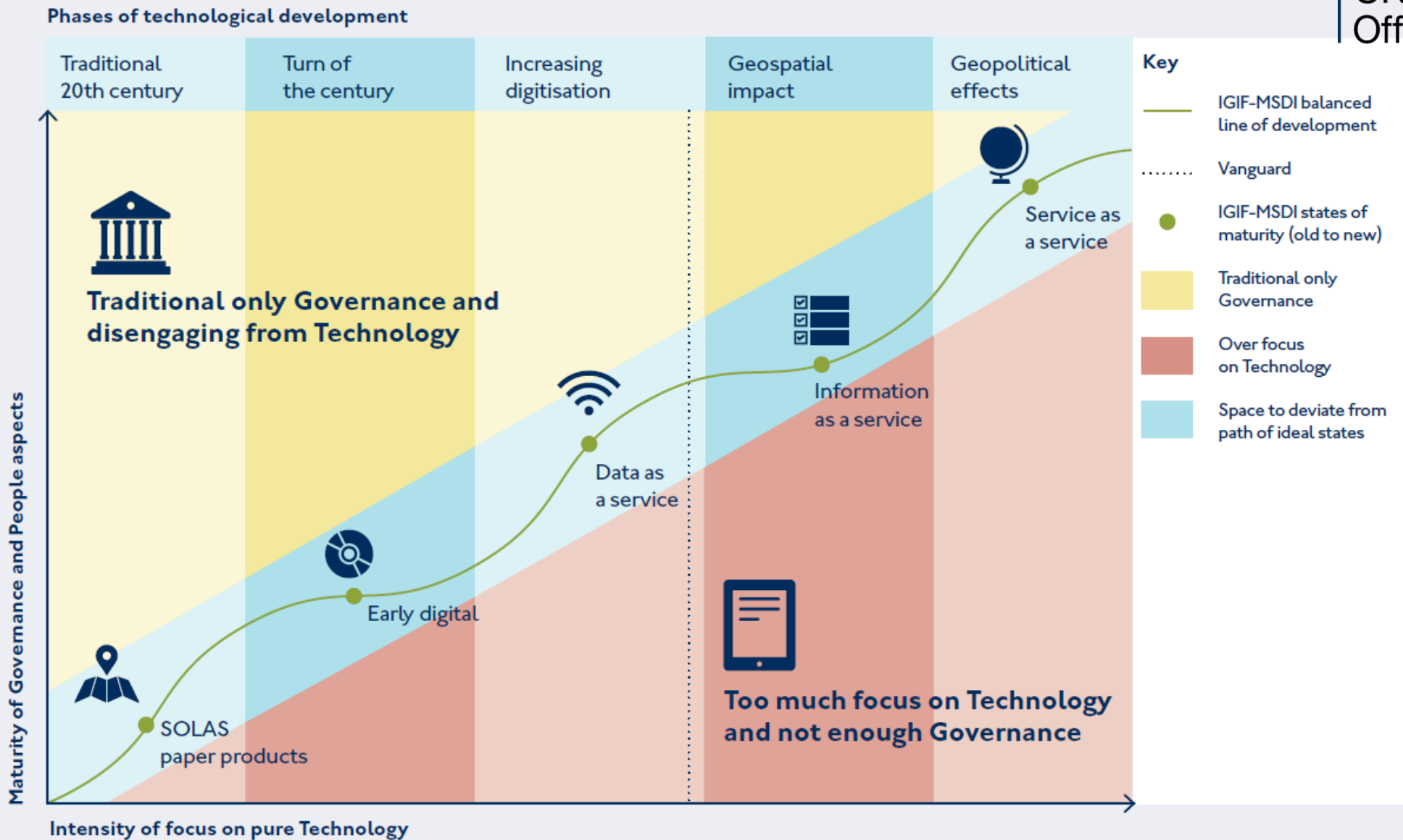
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# IGIF-MSDI is a Pathway, Maturity is a State



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# Six-Point Summary of the IGIF-MSDI Maturity Roadmap

## 1. Who?

For Hydrographic Offices (or national equivalents) and their marine/maritime geospatial data stakeholders.

## 2. Why

Cross-agency engagement is crucial for delivering complex future capabilities such as Digital Twins.

## 3. What?

Alignment of an MSDI implementation with the IGIF, leveraging World Bank expertise in SDI assessment.

## 4. When?

Pre-implementation to the early and middle stages of an IGIF-aligned MSDI transformation programme.

## 5. Where?

As a stepping-stone to the full IGIF-MSDI ecosystem for national, regional, and port-specific MSDI solutions.

## 6. How?

Early alignment will reduce future costs of divergence by ensuring interoperability with an All-Domain NSDI.



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Special thanks for Side Event support and/or endorsement:

IHO SecGen **Mathias Jonas**

OGC CEO **Nadine Alameh**

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