



UK Hydrographic
Office

Marine Spatial Data Infrastructure

Presented to IHO MSDIWG 15
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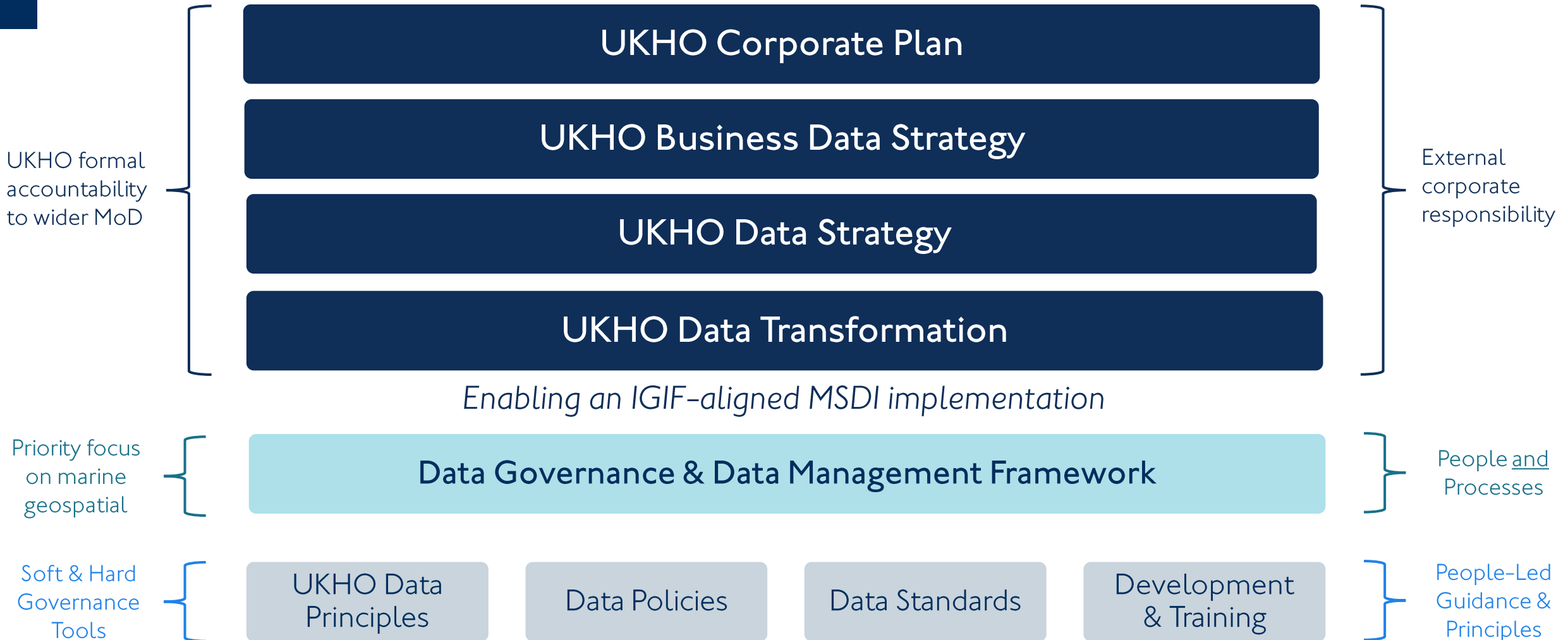
UK Hydrographic
Office

ADMIRALTY

Data Strategy




Data Strategy fit




UKHO Data Principles


1. Data is an Asset that has Value

- 
- ▶ a. We Source Once, Use Many
 - ▶ b. We retain received data As-Is
 - ▶ c. We prioritise data collection and analysis
 - ▶ d. We maximise the value of data
 - ▶ e. We ensure our own datasets comply with the Data Principles


2. Data must be Safeguarded

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- ▶ a. One Way In and One Way Out
 - ▶ b. We own and protect data
 - ▶ c. We manage the data lifecycle
 - ▶ d. We record data lineage

3. Data must be Easy to Use

- 
- ▶ a. Our data has metadata
 - ▶ b. Our data is sharable
 - ▶ c. Our data is standardised
 - ▶ d. Our data adheres to FAIR Principles
 - ▶ e. We present data appropriately

4. Data must be Fit for Purpose

- 
- ▶ a. We define data purpose at an appropriate level
 - ▶ b. We define and understand data veracity
 - ▶ c. We monitor data veracity



How do we bring the Data Principles to life?

What does adhere to the
Data Principles mean?



DATA IS AN ASSET WHICH HAS VALUE

- We retain data as it was received
- We source once use many times
- We prioritise data collection and analysis
- We maximise the value of data
- We ensure our own datasets comply with the data principles

A detailed bathymetric map of a coastal area, showing depth contours in various colors: red and orange for shallow waters, yellow and green for intermediate depths, and blue and purple for deeper waters. The map is overlaid with a grid of small dots.

UKHO IGIF-MSDI Maturity Assessment

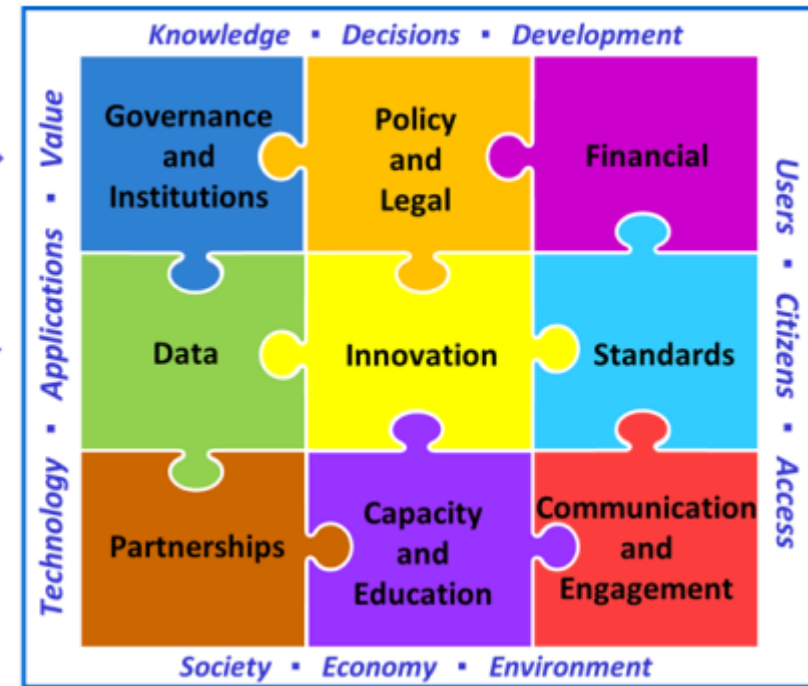
What is the OGC IGIF-(M)SDI Maturity Roadmap



Governance →

Technology →

People →



Direction and sponsorship by:

Cooperatively supported by:



An independent initiative, not endorsed by or officially connected to, but supportive of and aligned with the UN-GGIM IGIF principles.

A detailed bathymetric map of the ocean floor, showing various depths and features. The map uses a color scale from blue (shallow) to red (deep). A prominent feature is a large, circular, shallow area in the center, surrounded by a ring of slightly deeper water. To the right, there is a small, isolated island or seamount. The foreground shows a complex, textured seabed with many small ridges and valleys.

Why are we conducting a MSDI
Maturity Assessment?

What did we want to achieve?

- › Improve MSDI awareness
- › Engage with people
- › Data upskilling
- › A collective assessment
- › Avoiding blind spots
- › To share our experience

	B	C	D	
1				
2	STRATEGIC PATHWAY I			
3			Governance and Institutions	
4			<p>This strategic pathway establishes the leadership, governance model, institutional arrangements, and a clear value proposition to strengthen multi-disciplinary and multi-sectoral participation in, and a commitment to, achieving an Integrated Geospatial Information Framework.</p> <p>The objective is to attain political endorsement, strengthen institutional mandates and build a cooperative data sharing environment through a shared vision and understanding of the value of an Integrated Geospatial Information Framework, and the roles and responsibilities to achieve the vision.</p>	
5				
6	WB DT Ref	Indicator	Scoring Guide	
7				
8	I.1	<p>LEADERSHIP: Is there a "champion" in government that is leading, engaging and promoting the benefits of a National SDI across all levels of government organizations, and with the private sector, academia, and the local community?</p>	<p>0 = None. 25 = Informal role. 50 = Defined role and person exists with vision. 75 = Actively driving change across government with tangible outcomes. 100 = Actively driving change across government, the private sector, academia, and the local community with tangible outcomes.</p>	
	I.2	<p>GOVERNING BODY: May also be referred to as steering group. Has your organisation been involved in establishing the Leadership, direction and oversight for SDI-related activities and projects?</p>	<p>0 = None. 25 = Awareness of SDI governance arrangements. 50 = Involved in official consultations. 75 = Membership of working groups. 100 = Active contribution to development of SDI activities.</p>	
		Instructions	SP1 Governance and Institutions	SP2 Policy and Legal SP3 Financial SP4 Data SP5

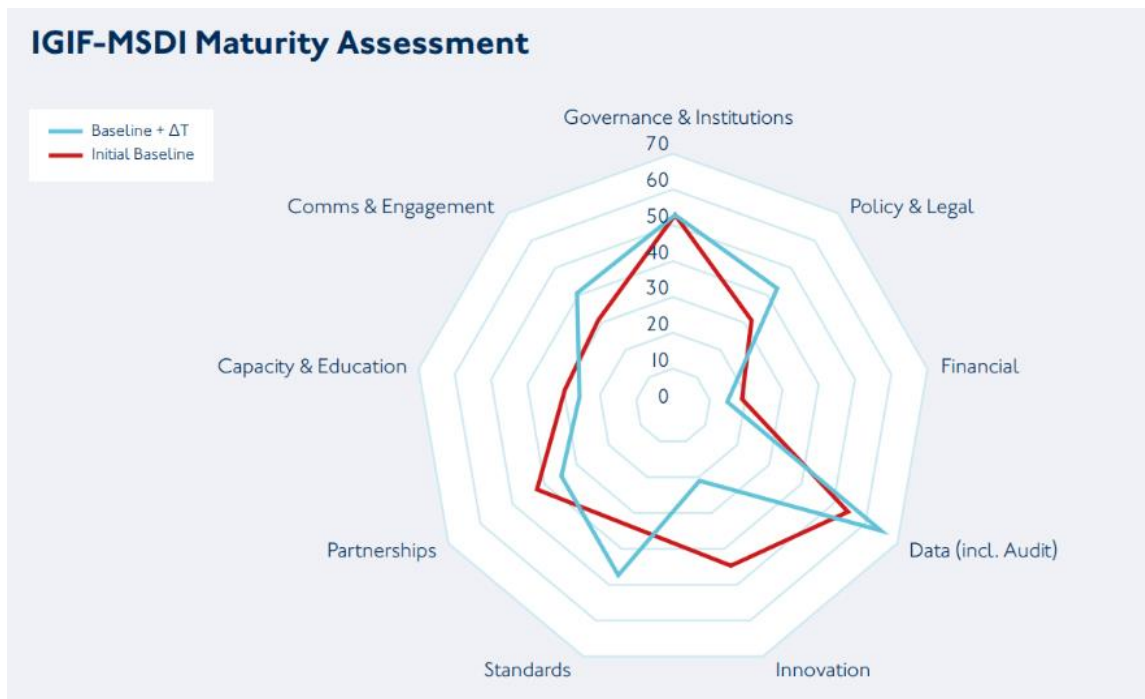
Our Approach to the Assessment

- › Rolling Communications
- › Stakeholder identification
- › Added UKHO context to the assessment questions
- › Approx 1 hour per SP
- › Split into smaller groups within each workshop
- › Shared results and written feedback



Analysing the results

- › Quantitative – aggregating the scores
- › Qualitative – analysis of written and verbal input



Q2: Are there effective instruments in the policy and legal framework to ensure that geospatial data sharing is encouraged, promoted and fully enabled?

terms around sharing
UKHO and consistency data release
Gov organisations
fully shared
Data architecture
Not all data
Lack of understanding

example between UKHO
policies
standard
data sharing
agreements
organisations

Sharing is in place
UKHO
wider use
data holdings
sharing - a lot



Next steps

- › Complete analysis
- › Communicate the results
- › Prioritise alongside the UKHO Corporate Plan and Transformation Programme
- › Ownership of actions and engagement
- › Supporting the development of S-100

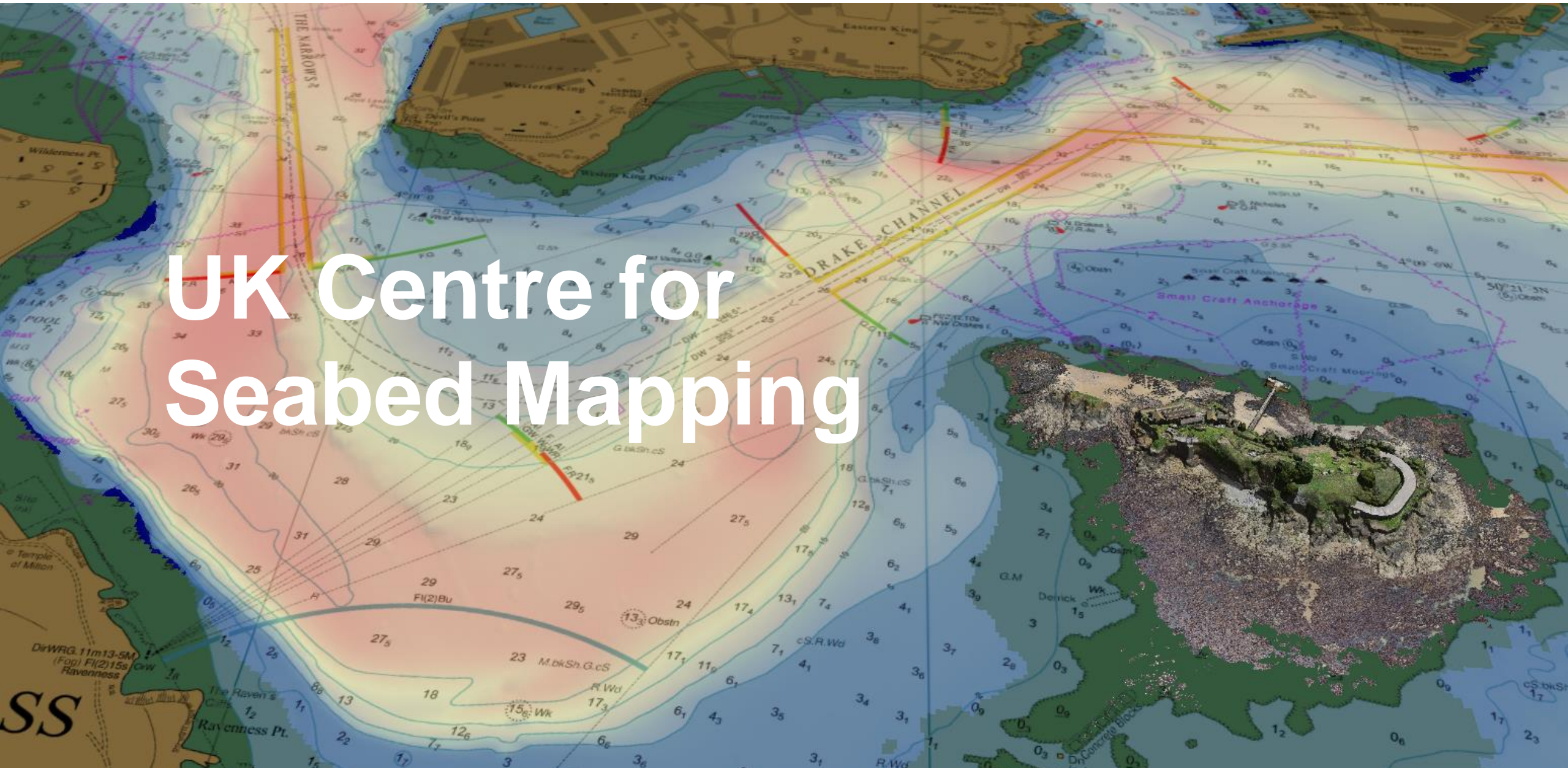


Where to find out more?

Details regarding the IGIF-(M)SDI Maturity Roadmap

Can be found here: <https://www.ogc.org/igif-msdi-maturity-roadmap>



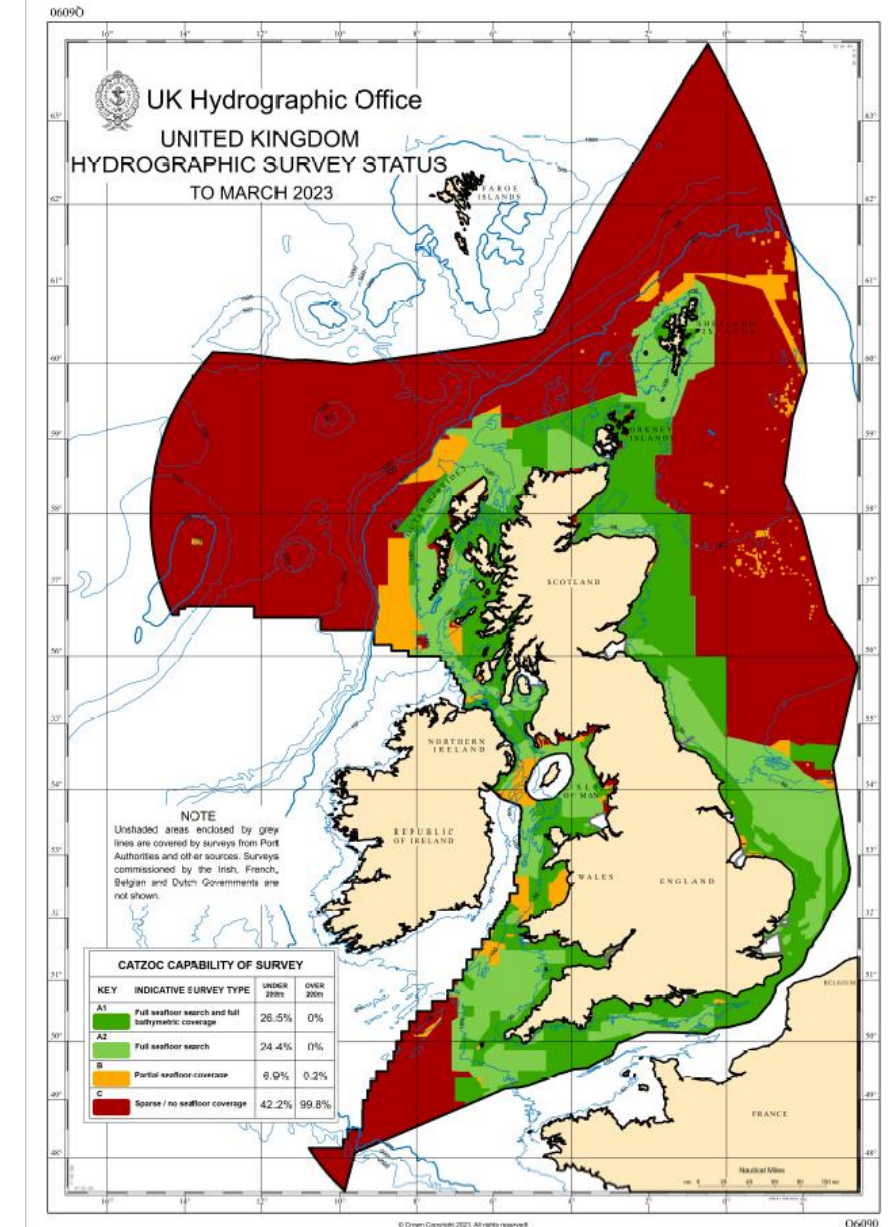


UK Centre for Seabed Mapping



UK CSM – The Issue

- The UK Government seabed mapping community is large (30+ organisations) & across numerous departments.
- No central coordination
- Only 26.5% of the UK EEZ (British Isles) mapped to modern standards (about 1.5% per year).
- Less than 2% of the UK EEZ (Global OTs and CDs) mapped to modern standards.
- No combined voice to reinforce the importance of marine geospatial data.





UK Centre for Seabed Mapping created...




- Quality marine geospatial information is essential for almost every activity undertaken in the marine domain.
- These activities include maritime trade, informing sustainable environmental and resource management, and supporting national security and infrastructure.
- **Vision & Mission:** to support a more integrated Marine Geospatial Sector for the UK, both nationally and internationally; increase the coverage, quality and access of seabed mapping data, as well as better promote it as a critical component of national infrastructure.



UK Centre for Seabed Mapping

Increasing the quantity, quality, availability and awareness of seabed mapping data through collaboration

Administered by the:



The UK CSM supports the Sustainable Development Goals



UK CSM Priorities

• Four priorities that the UK CSM seeks to address:

• Collaboration



• Data Standards



• Data Accessibility



• Data Collection



UK Centre for Seabed Mapping

Seabed mapping is the foundation dataset that underpins almost every sector within the marine environment.

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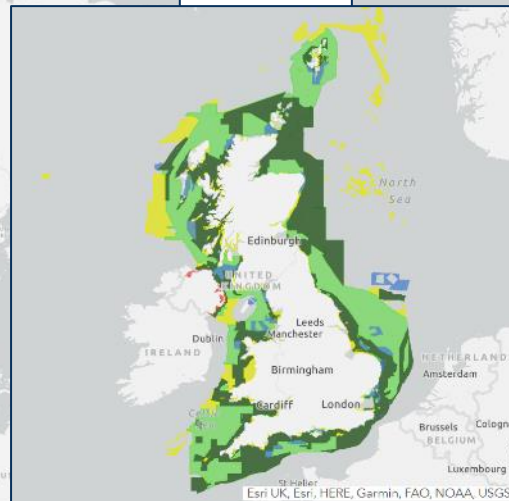
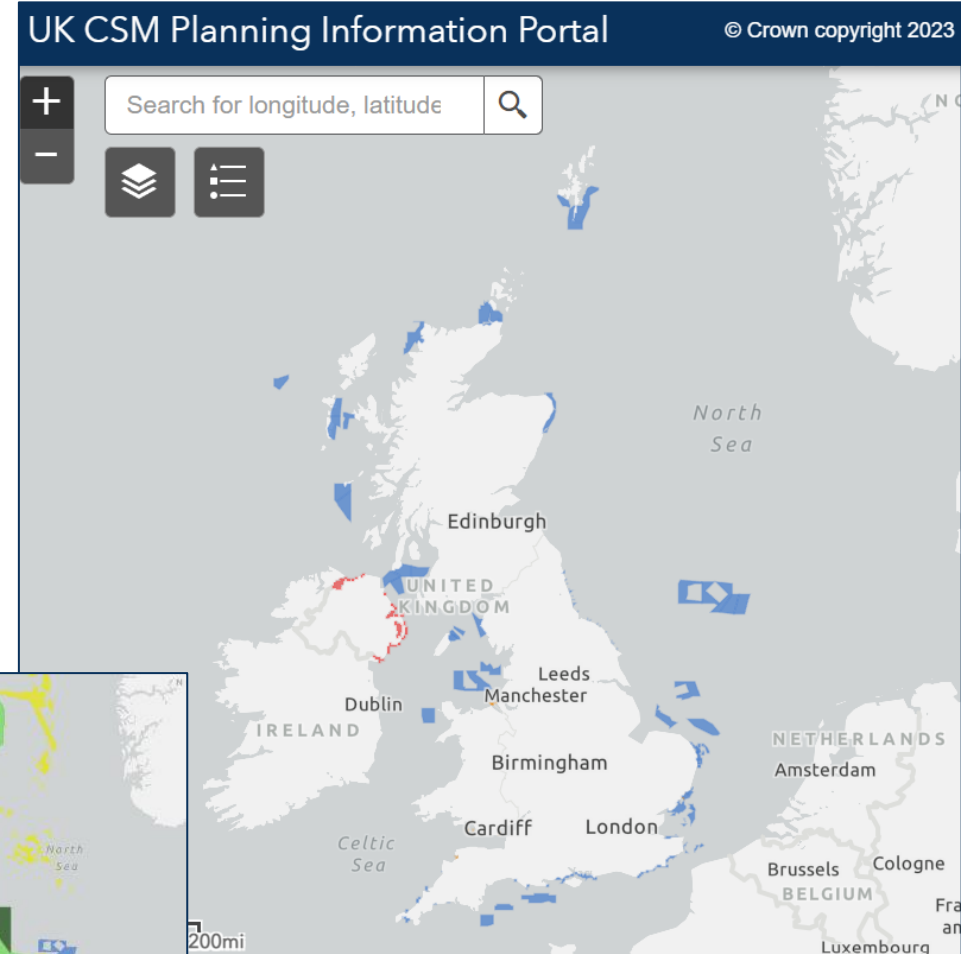
SUSTAINABLE DEVELOPMENT GOALS

The UKHO supports the Sustainable Development Goals



UK CSM – Initial Operating Capacity

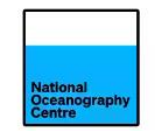
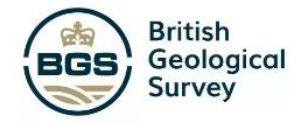
- **Planning Information Portal** – all organisations able to share their forward plans for activity, anywhere in the world:
 - [UK CSM Planning Information Portal \(arcgis.com\)](https://arcgis.com)
- **Website** – able to share details with members:
 - [UK Centre For Seabed Mapping | ADMIRALTY](https://www.admiralty.gov.uk)



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UK Centre for Seabed Mapping

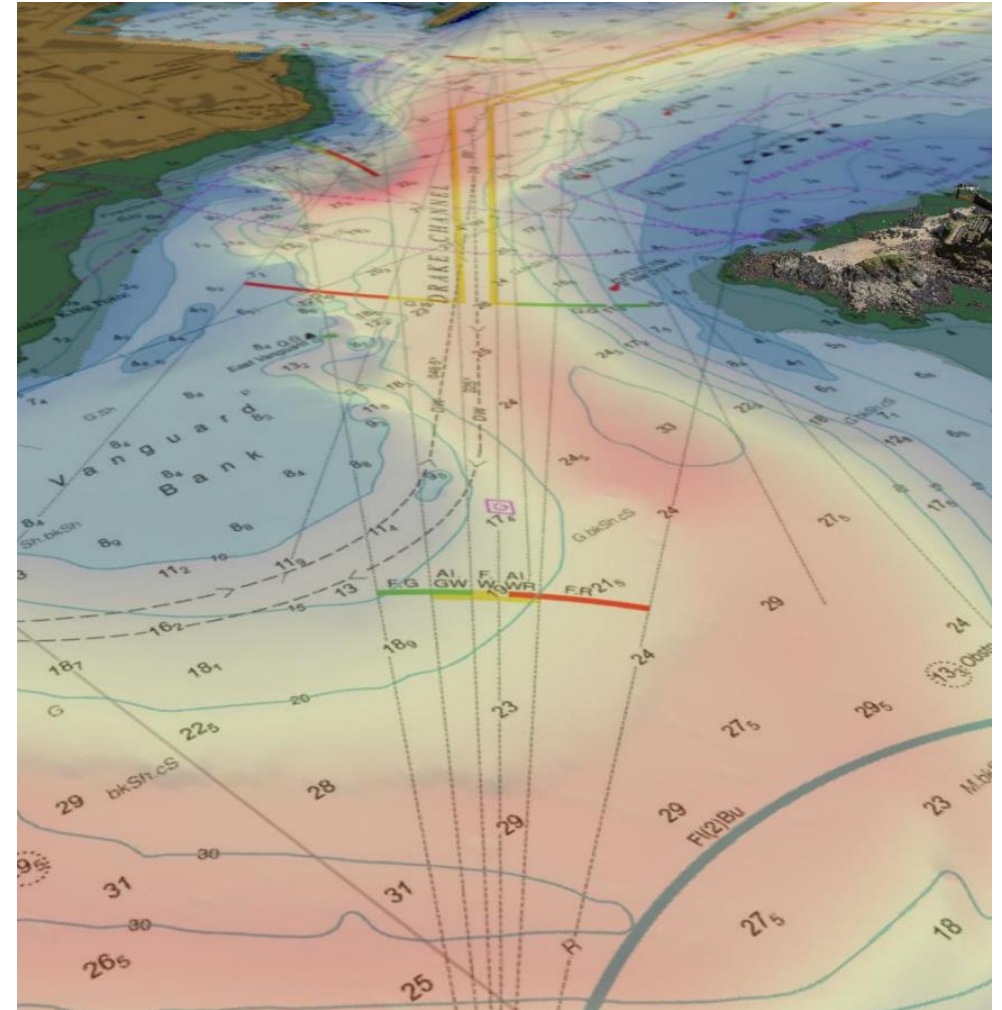


30 Members



The Future...

- Once UK CSM has significant traction across Government, it is hoped to expand collaboration with:
 - Academia
 - Ports
 - Offshore energy sector
 - Private sector
- This is hoped to begin in early 2024.





Terima kasih

