



17th Conference of the EAthC /
17^{ème} Conférence de la CHAtO

Marine Spatial Data Infrastructure
Infrastructure de Données Spatiales Maritimes

Portuguese Hydrographic Office

Agenda Item 03.4A



IHO

Agenda

International
Hydrographic
Organization

1

MSDI WG

2

EAtHC MSDI WG

3

MSDI and IHO Strategic Plan

4

Actions requested from EAtHC17





IHO

1. Marine Spatial Data Infrastructure Working Group

1.1. MSDI WG

➔ Background:

- Subsidiary body of the IRCC;
- Established in May 2007.

➔ Composition:

- Representatives of member states: 30;
(EAtHC: France, Nigeria, Portugal, Spain, UK)
- Expert contributors: 16.

➔ Objective:

- Support the activities of the IHO related to SDI, MSDI and MSP, as far as marine data is involved.

MSDIWG

MARINE SPATIAL DATA INFRASTRUCTURES WORKING GROUP (MSDIWG)

Chair:	Mr Jens Peter HARTMANN (Denmark)
Vice-Chair:	Ms Pearlyn PANG (Singapore)
Secretary:	Mr Leonel MANTEIGAS (IHO Secretariat)

Objectives

Assess the status of Spatial Data Infrastructures (SDI), Marine Spatial Data Infrastructures (MSDI) and Marine Spatial Planning (MSP) worldwide. Support and promote the activities of the IHO in these fields. The WG develops and maintains the IHO Publication C-17 Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices. Members are representatives of Member States, Expert Contributors and Accredited NGIO Observers.

Meeting Documents

Only documents for upcoming, current and previous years meetings are listed left. All earlier meeting documents are available from the [IHO Document Archive](https://iho.int/en/msdiwg).

<https://iho.int/en/msdiwg>



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1. Marine Spatial Data Infrastructure Working Group

1.1. MSDI WG

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➔ Last meeting (MSDIWG13):

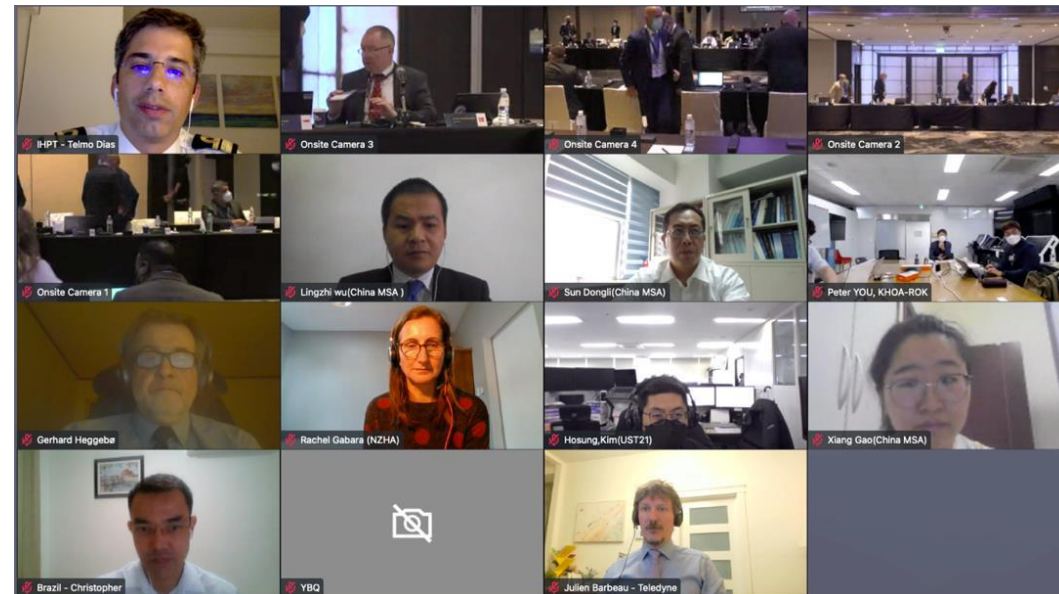
- 9-13 May 2022 – Singapore – Hybrid.

➔ Topics:

- Updates to C-17
- IHO strategy from a MSDI perspective
- Cooperation with other IHO WG (S-100, WEND)
- Fair principles
- Presentations from MS and expert contributors
- Maritime Digital Twins
- Webinar on Integrated Marine Geospatial Information Management

➔ Next meeting (MSDIWG14):

- 30 Jan – 3 Feb 2022 – Italy.





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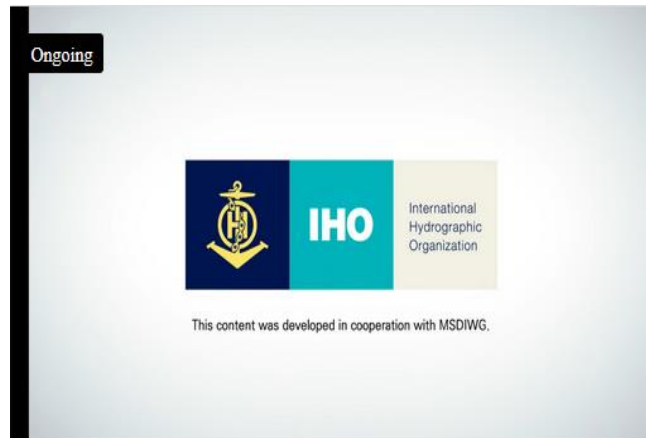
1. Marine Spatial Data Infrastructure Working Group

1.2. IHO e-Learning Center

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➔ MSDI Courses:

- MSDI fundamentals (older)
- Fundamentals of MSDI



MSDI Self-paced

MSDI fundamentals

📅 Enrollment Period	08-25-2022 ~ 12-31-2022
📅 Learning period	08-25-2022 ~ 12-31-2022(18 weeks)
🕒 Lecture_time	2h 28m
🏠 Provider	MSDIWG

🕒 Take the course at your own pace

📄 Downloadable Certificate
Earn a certificate upon the course completion

💰 100% Free



MSDI Self-paced

Fundamentals of MSDI (Marine Spatial Data Infrastructure)

📅 Enrollment Period	11-01-2021 ~ 12-31-2022
📅 Learning period	11-01-2021 ~ 12-31-2022(61 weeks)
🕒 Lecture_time	2h38m
🏠 Provider	

🕒 Take the course at your own pace

📄 Downloadable Certificate
Earn a certificate upon the course completion

💰 100% Free



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1. Marine Spatial Data Infrastructure Working Group

1.3. Publication C-17

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➔ New structure:

- Chapter 1 – Introduction and background
- Chapter 2 – Role of HO and MSDI
- Chapter 3 – MSDI maturity
- Chapter 4 – IGIF 9 pathways from the HO perspective
- Chapter 5 – Taking MSDI to the next level
- Glossary

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1. Marine Spatial Data Infrastructure Working Group

1.3. Publication C-17

➔ Milestones:

- 30NOV22 – Draft ready for members comments
- 01DEC22 – 20JAN23 -> Circulate for consultation
- 20JAN23 – 25JAN23 -> Review of the comments

➔ Drafting team:

- Meetings every 15 days;
- EAtHC: Ghana, Morocco, Portugal.



SPATIAL DATA INFRASTRUCTURES "THE MARINE DIMENSION"

Guidance for Hydrographic Offices

Publication C-17
Second Edition
Version 2.0.0 - January 2017



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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.1. EAtHC MSDI WG

➔ Background:

- Established in EAtHC16.

➔ Composition:

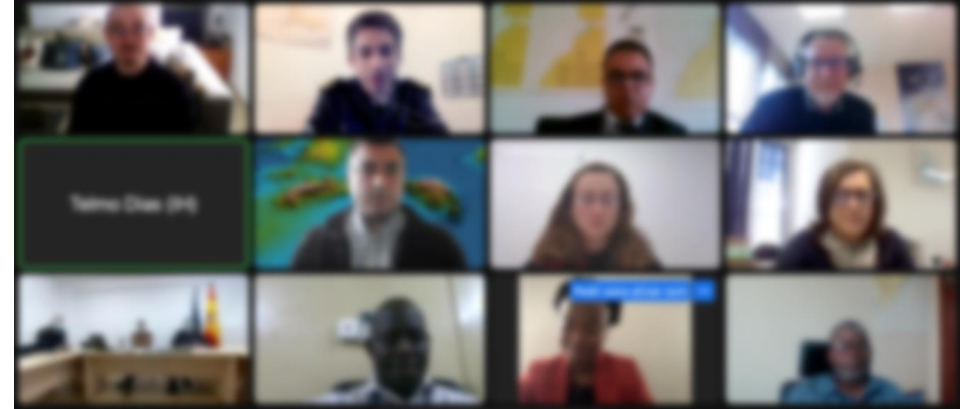
- 8 members;
- MS: France, Ghana, Morocco, Nigeria, Portugal, Spain;
- AM: UK;
- OBS: Gambia.

➔ Objective:

- Support the activities of the EAtHC related to MSDI, focusing on managing and sharing marine spatial data and extending its use.

➔ Last meeting:

- 17 February 2022 (VTC).



<https://iho.int/en/eathc-msdiwg>

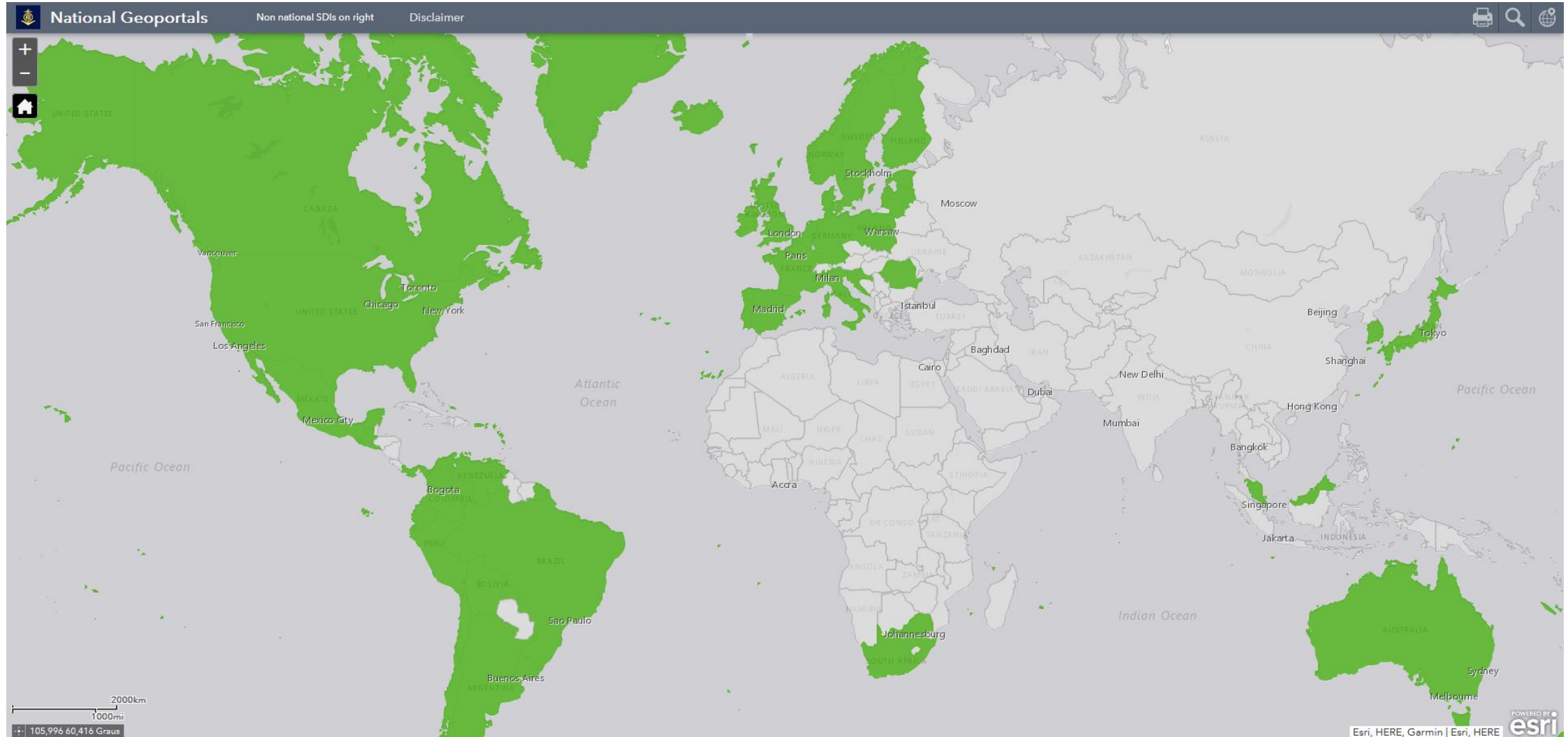


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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.2. EAtHC SDI/MSDI Implementation – IHO Web App

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EAtHC17, Mindelo, Cape Verde, 28 - 30 September 2022 (VTC supported)

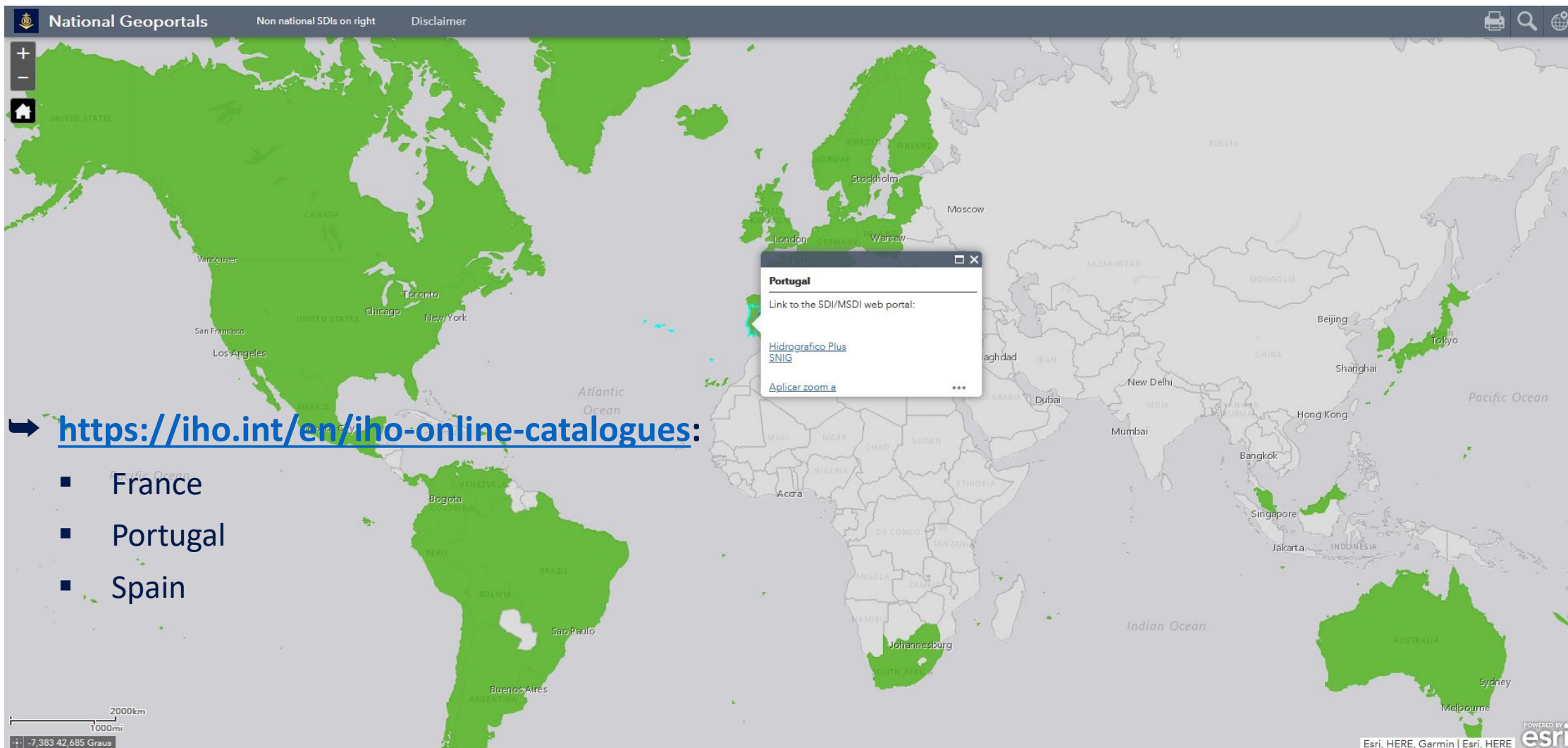


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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.2. EAtHC SDI/MSDI Implementation – IHO Web App

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➔ <https://iho.int/en/iho-online-catalogues:>

- France
- Portugal
- Spain

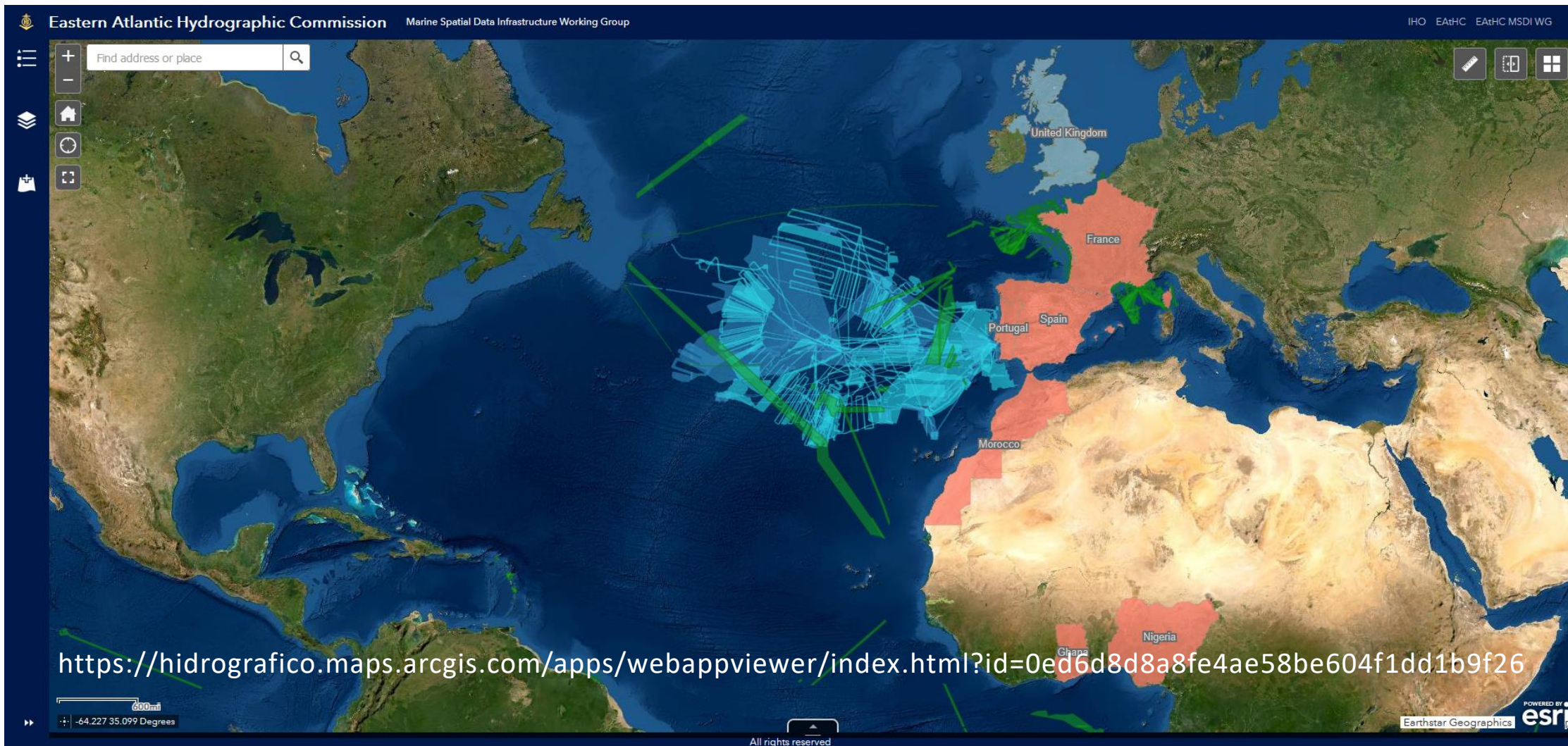


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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.3. MSDI Implementation – EAtHC Web App

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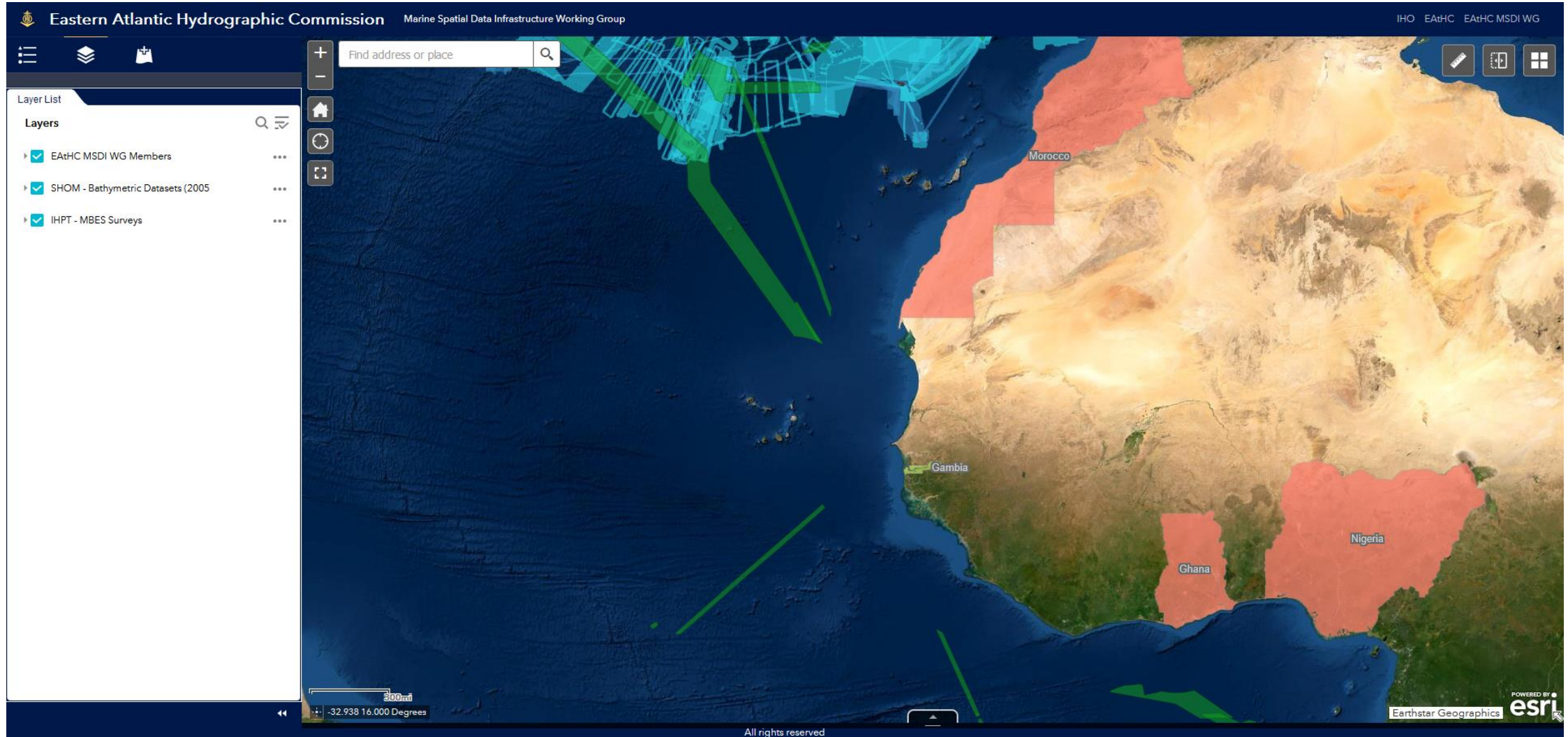


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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.4. EAtHC16 (MSDI) Actions List

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Organization

Action Item	Description	Date to Report	Responsability	Status
EAtHC16 (MSDI) 1	Review the procedures for the transmission of survey data, making sure that all relevant national organizations can access the survey data covering their national waters.	Permanent	Coastal States	
EAtHC16 (MSDI) 2	Identify further potential sources of bathymetric measurements and survey data providers to facilitate the further completion of the Data Center for Digital Bathymetry (DCDB) data holdings.	Permanent	MSDI WG and Coastal States	
EAtHC16 (MSDI) 3	Enroll as members in EAtHC MSDI WG.	EAtHC17	Coastal States	Completed
EAtHC16 (MSDI) 4	Propose the terms of reference (ToR) and rules of procedure (RoP) of the EAtHC MSDI WG.	December 31, 2021	Portugal	Completed
EAtHC16 (MSDI) 5	Create a web app with: 1.supporting documents and MSDI information; 2. common/base layers to MSDI projects (bathymetry, shoreline, maritime boundaries, etc.) and 3. Support disaster response framework.	EAtHC17	MSDI WG	Partially completed
EAtHC16 (MSDI) 6	Build an inventory (with links) of existing MSDI in the EAtHC region.	EAtHC17	MSDI WG	Completed

EAtHC17, Mindelo, Cape Verde, 28 - 30 September 2022 (VTC supported)

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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.5. IRCC14 Recommendations

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Recommendation	Description	Domain
2	RHC to discuss how HO's can assume a geo-coordinating role to help ensure provision of data on a regional level.	MSDI
10	RHC to encourage all Member States to respond to IHO CL 21/2020 and, if possible, offer a positive response, even if qualified, to enable provision of CSB data into the public domain collected from ships within waters subject to their national jurisdiction.	CSB
11	RHC Chairs to bring the IRCC CL 1/2020 to the attention of all coastal states within their respective RHC, encouraging them to offer a positive response, even if qualified, to enable provision of CSB data into the public domain collected from ships within waters subject to their national jurisdiction.	CSB
12	RHC to encourage Member States to release datasets or subsets into the public domain via the IHO DCDB.	Seabed
13	RHC to encourage Member States to support the CSB initiative with positive actions, such as requiring all research vessels to collect bathymetric data for late uploading, when on passage or when it does not interfere with other research activities.	CSB
14	Encourage RHCs to actively contribute with new data to GEBCO.	Seabed
15	Encourage RHCs to discuss how nations can share existing data.	MSDI
16	RHCs to encourage Member State and stakeholder bathymetric data contributions to the DCDB, regardless of origin.	Seabed

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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.6. Actions List Update Proposal (1)

International
Hydrographic
Organization

Action Item	Description	Predecessor	Date to Report	Responsability
EAtHC17 (MSDI) 1	Review the procedures for the transmission of survey data, making sure that all relevant national organisations can access the survey data covering their national waters.		Permanent	Coastal States
EAtHC17 (MSDI) 2	Identify sources of bathymetry and encourage data owners (all coastal states or other stakeholders) to contribute with datasets or subsets to IHO Data Center for Digital Bathymetry (DCDB) and General Bathymetric Chart of the Oceans (GEBCO).	IRCC Rec 12, 14, 16	Permanent	Coastal States
EAtHC17 (MSDI) 3	Support the Crowdsourced Bathymetry (CSB) initiative with positive actions, such as requiring all research vessels, when on passage or when it does not interfere with other research activities, to collect bathymetric data for later uploading.	IRCC Rec 13	Permanent	Coastal States
EAtHC17 (MSDI) 4	Maintain a web map application to use as testbed by EAtHC MSDI WG members and to publish and share hydrographic data.	IRCC Rec 2, 15	Permanent	MSDI WG



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2. Eastern Atlantic Hydrographic Commission MSDI WG

2.6. Actions List Update Proposal (2)

International
Hydrographic
Organization

Action Item	Description	Predecessor	Date to Report	Responsability
EAtHC17 (MSDI) 5	Encourage all coastal states to respond to CSB questionnaire (IHO CL 21/2020, IRCC CL 1/2020) and, if possible, offer a positive response, even if qualified, to enable provision of CSB data into the public domain. collected from ships within waters subject to their national jurisdiction.	IRCC Rec 10, 11	EAtHC18	Coastal States
EAtHC17 (MSDI) 6	Plan a workshop on how to build a MSDI (geospatial data, spatial databases, web services, etc.) (VTC or at EAtHC18?)		EAtHC18	MSDI WG
EAtHC17 (MSDI) 7	SPI 1.2.2 measuring approach proposal SPI 2.2.1 measuring approach proposal		Dormant	MSDI WG



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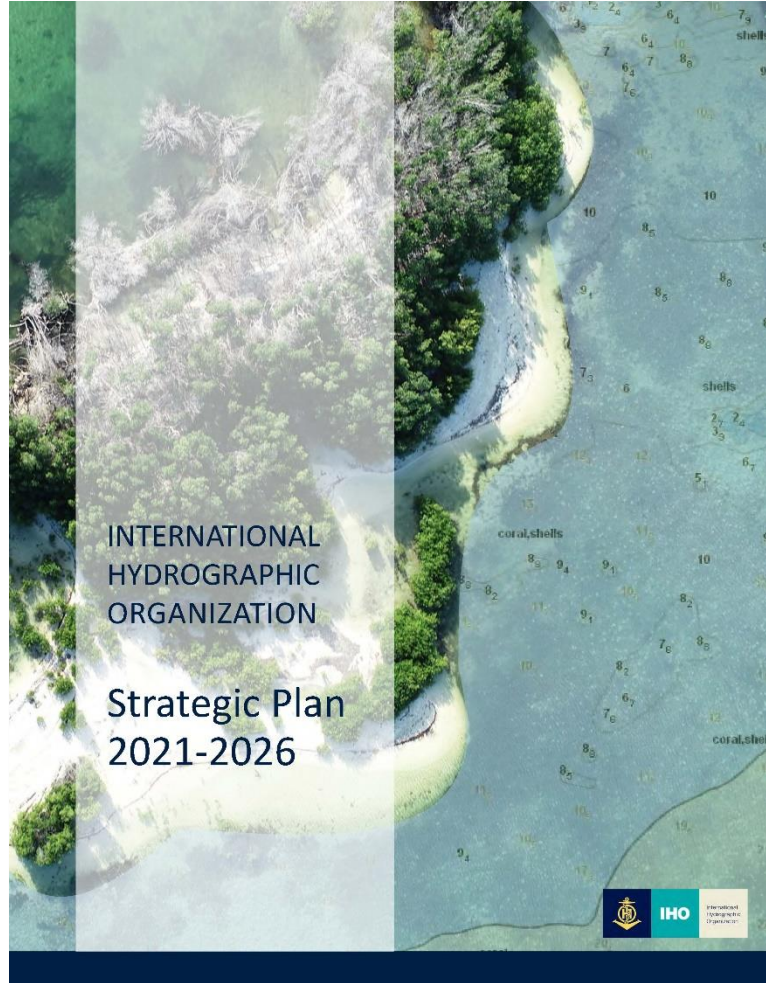




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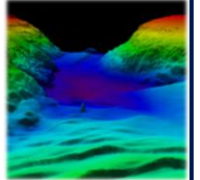
3. MSDI and IHO Strategic Plan

3.1. Goals



Goal 1

Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation.



Goal 2

Increasing the use of hydrographic data for the benefit of society.

Target 2.1 – Build a portal to **support and promote** regional and international **cooperation in MSDI**.

Target 2.3 – Apply UN shared **guiding principles** for **geospatial information management** in order to ensure **interoperability and extended use of hydrographic data** in combination with other marine-related data.



Goal 3

Participating actively in international initiatives related to the knowledge and the sustainable use of the Ocean.





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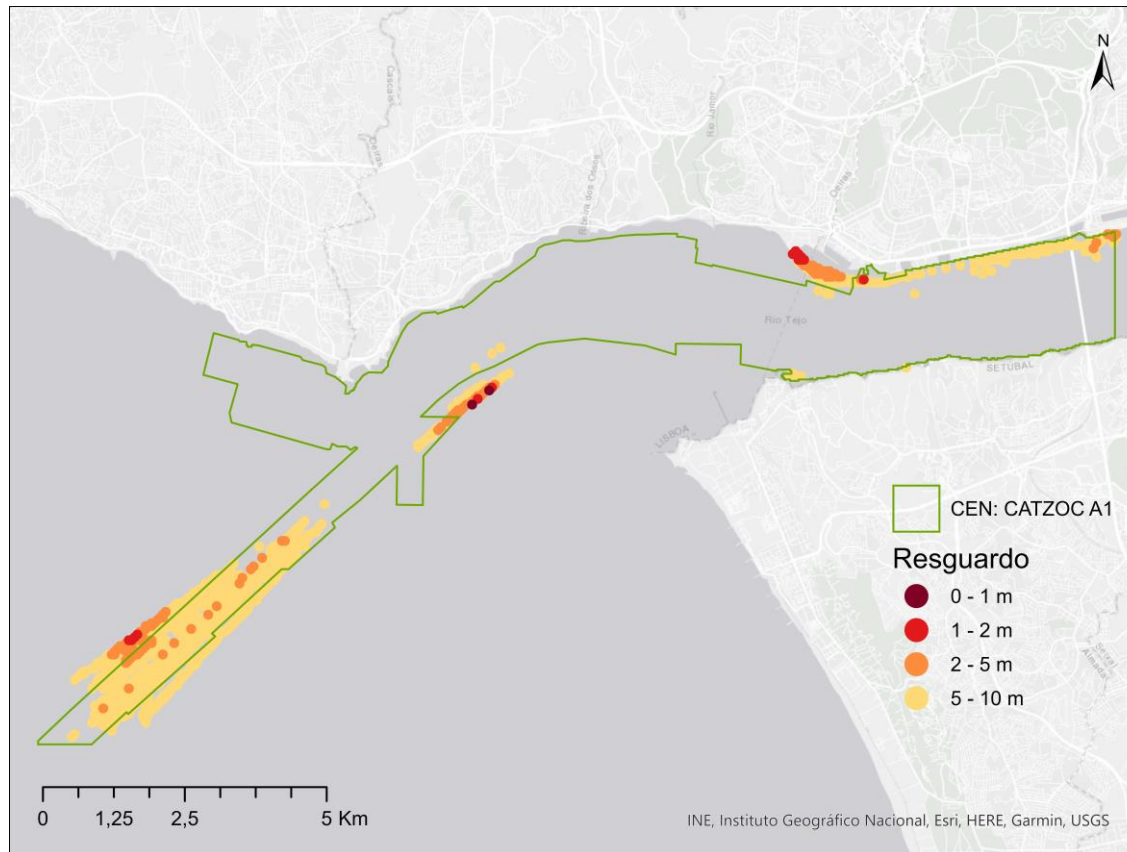
3. MSDI and IHO Strategic Plan

3.2. Goal 1

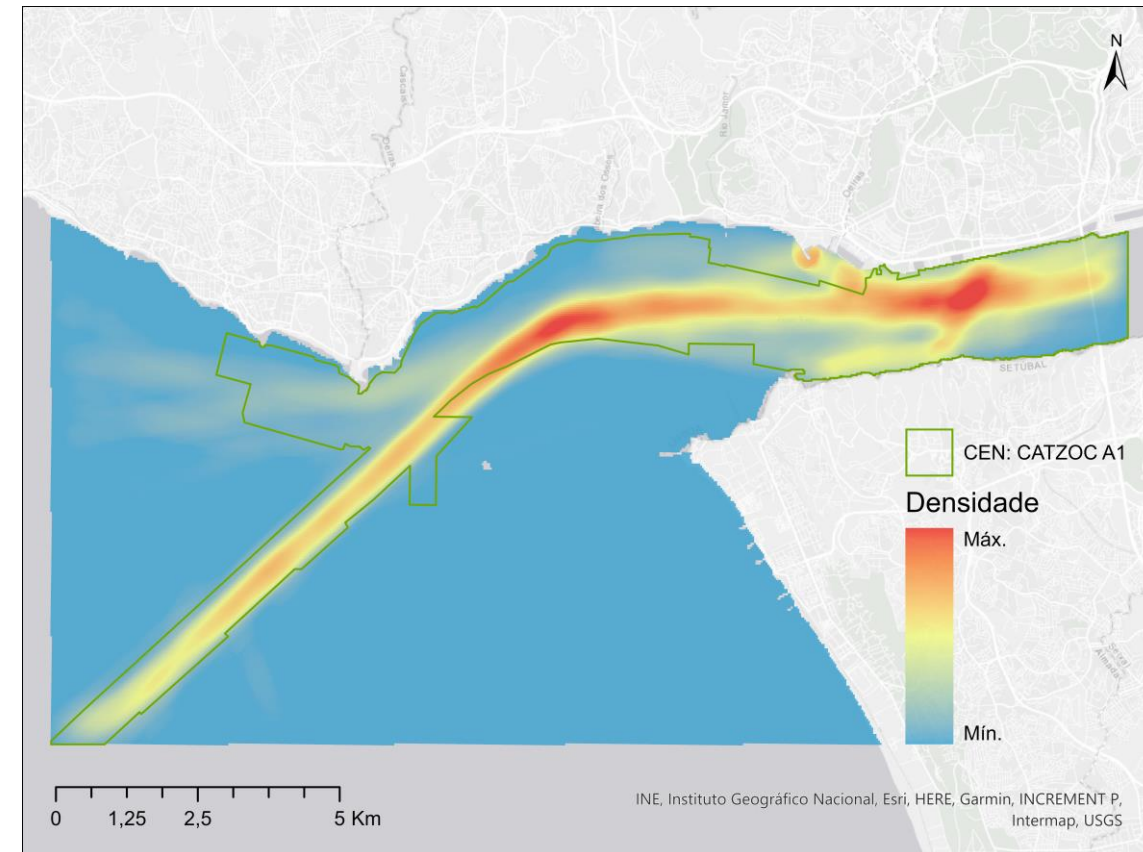
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➔ Evolving the hydrographic support for **safety and efficiency of maritime navigation**, undergoing profound transformation.

➔ CATZOC A1 (ENC) – Under Keel Clearance (AIS)

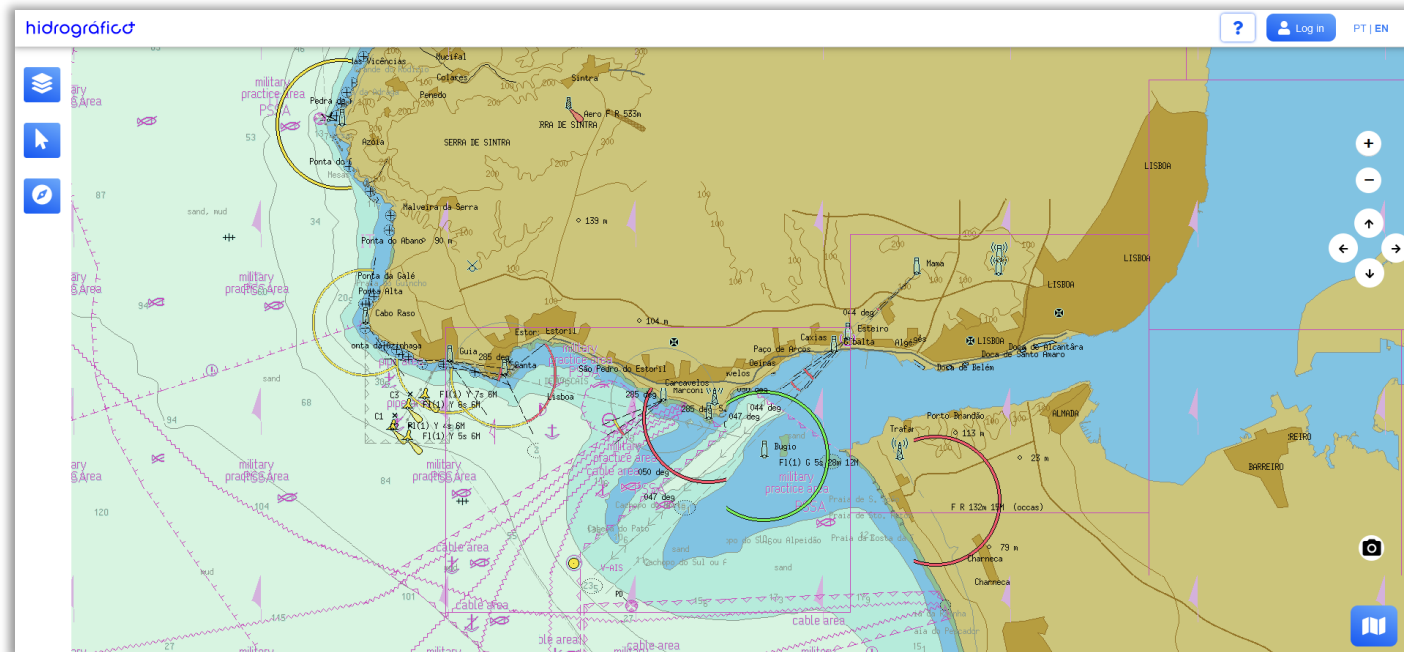


➔ CATZOC A1 (ENC) – Ship Track Density (AIS)





- SevenCs WMS ChartServer
- Provide users a ENC basemap
- Support marine and blue economy activities



EAtHC17, Mindelo, Cape Verde, 28 - 30 September 2022 (VTC supported)

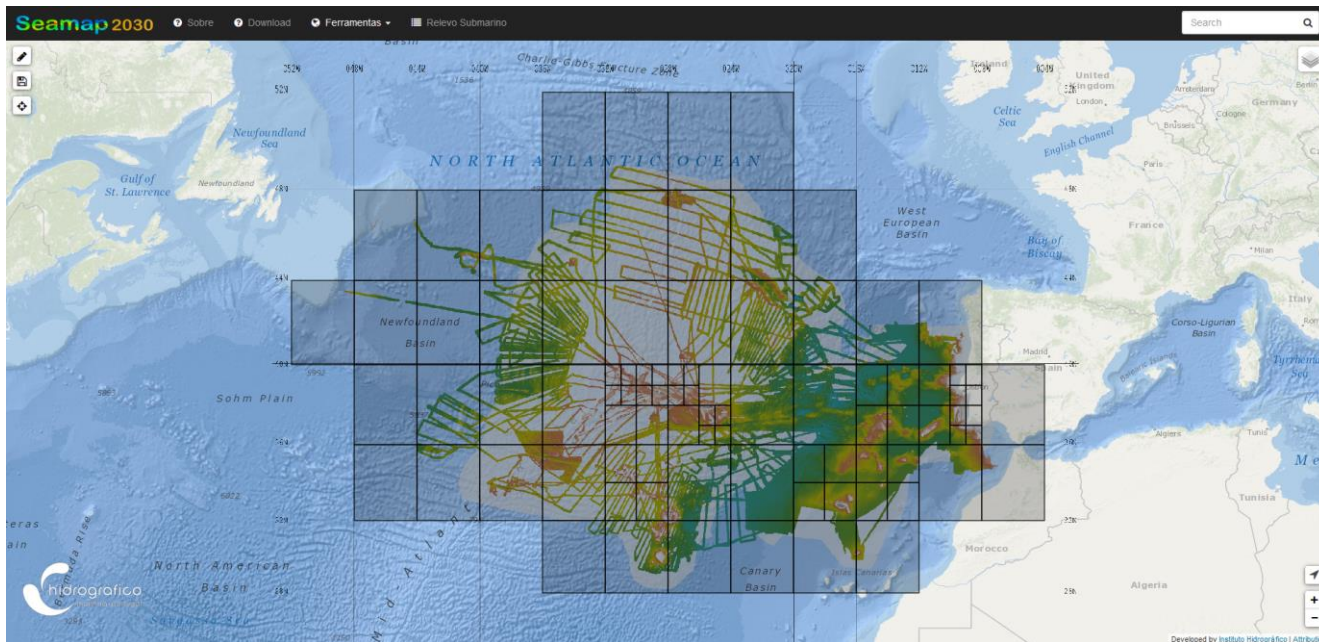


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3. MSDI and IHO Strategic Plan

3.3. Goal 3

➔ Participating actively in international initiatives related to the **knowledge** and the sustainable use of the ocean.



RESOLUTION(S)

Depth 50m-250m – Res. 32m
Depth 250m-1000m – Res. 64m
Depth 1000m-2000m – Res. 128m
Depth 2000m-4000m – Res. 256m
Depth +4000m – Res. 512m

<https://gridmar.hidrografico.pt>





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4. Actions requested from EAtHC17

➔ **EAtHC is invited to:**

1. Take note of the presentation.
2. Discuss any item with relevance to MSDI and take appropriate actions.

Thank you for your attention