

Eastern Atlantic Hydrographic Commission  
 Marine Spatial Data Infrastructure Working Group  
 EAtHC MSDI WG  
**Minutes from 1<sup>st</sup> Meeting on February 17<sup>th</sup>, 2022**

## 1. Background

- 1.1 The first meeting of the Eastern Atlantic Hydrographic Commission (EAtHC) Marine Spatial Data Infrastructure (MSDI) Working Group (WG) was organized by Portugal and took place online (VTC) on February 17<sup>th</sup>, 2022.
- 1.2 The main goals of the meeting were:
- 1.2.1 Get to know the WG members;
  - 1.2.2 Approve Terms of Reference (ToR) and Rules of Procedure (RoP);
  - 1.2.3 Start the activities of the WG.

## 2. Agenda

- 2.1 The meeting had the following agenda:

Time (GMT)	Duration	Intervention	Topic
09h00 - 09h05	5 min	Cdr. João Vicente	Opening remarks
09h05 - 09h15	10 min	LtCdr. Telmo Dias / All members	1. WG Chair and Vice-chair: a. Chair confirmation b. Vice-Chair volunteers and designation
09h15 - 09h25	10 min	LtCdr. Telmo Dias / All members	2. ToR and RoP: a. Present ToR and RoP draft b. Collect additional comments c. Approve ToR and RoP
09h25 - 09h40	15 min	LtCdr. Telmo Dias / All members	3. SPI approach: a. Present concerns regarding specific SPI related with MSDI (SPI 1.2.2 and 2.2.1) b. Present different approaches c. Collect contributions/comments
09h40 - 09h45	5 min	LtCdr. Telmo Dias / All members	4. Actions list: a. Present actions list draft b. Collect contributions/comments c. Define actions list
09h45 - 09h50	5 min	LtCdr. Telmo Dias	Closing remarks

### 3. Participants

#### 3.1 Portugal:

- Cdr. João Vicente (EAtHC Secretariat)
- LtCdr. Telmo Dias (EAtHC MSDI WG Chair)
- Mrs. Paula Sanches

#### 3.2 France:

- LtCdr. Julien Smeeckaert
- Mr. Eric Le Guen

#### 3.3 Ghana:

- Ms. Marilyn Eghan
- Ing. Isaac Yirenkyi

#### 3.4 Morocco:

- Lt. Abdellah Hadou

#### 3.5 Spain:

- Lt. Alberto Fernández Ros
- Mr. Pablo Sánchez Gámez

#### 3.6 United Kingdom:

- Mrs. Helena Patton (on behalf of Mrs. Cathy Tunks)

#### 3.7 Gambia:

- Mr. Dominic Correa



#### 4. Description

- 4.1 The meeting started with some opening remarks from Cdr. João Vicente.
- 4.2 Next, LtCdr. Telmo Dias presented the main decisions from EAtHC16 regarding MSDI, namely, decisions 17 to 20. Portugal was confirmed as Chair of the WG and none of the other members volunteered to be Vice-Chair.
- 4.3 Next, it was presented the latest version of ToR and RoP. None of the members had anything to add, so the Chair said that he would pass this late version for the approval of the members.
- 4.4 Next, it was made a small summary of the EAtHC concerns regarding IHO Strategic Plan and, specifically, SPI 1.2.2 and 2.2.1.
  - 4.4.1 Regarding SPI 1.2.2 it was pointed out by the Chair and backed by the members that there is a need to: (i) define clearly and exhaustively, at a higher IHO level, what are navigationally significant areas; and (ii) clarify if the goal is to have CATZOC coverage in those areas or to assess if the existent CATZOC coverage is adequate.
  - 4.4.2 Regarding SPI 2.2.1 it was pointed out by the Chair that there is a need to: (i) define what are adequately surveyed areas; (ii) what measure (CATZOC) should be used to assess it; and (iii) if all areas, no matter the depth, should be assessed equally. A possible solution for this, would be the computation of the Hydrographic Gap (difference between the Desired Survey Score and the Present Survey Score). Regarding this SPI: (i) France added that, in the past, there were some difficulties in reaching an agreement concerning Hydrographic Gap computation; (ii) Morocco added that distance from the coastline should be considered; and (iii) Spain added that C-55 should be used to support this SPI.
- 4.5 Next, it was presented the action list status. The Chair suggested including, as a new action (EAtHC (MSDI) 5), a SPI 1.2.2 and 2.2.1 measuring approach proposal. As this action is, currently, being prepared by the IRCC, the WG members decided to keep this action dormant till the next IRCC Workshop on the subject. Regarding the action EAtHC16 (MSDI) 4, France added that an inventory survey has been processed in the MACHC region to report existing MSDI and available data layers (<https://www.iho-machc.org/mmsdiwg.html>).
- 4.6 Next, the Chair asked the members if they would like to discuss any other subject. As nothing was proposed, the meeting was concluded with some brief closing remarks.

## **5. Conclusions**

- 5.1 The meeting fulfilled its main goals.
- 5.2 The next WG actions will be conducted by correspondence (e-mail).

## **6. Annexed Documents**

- 6.1 Meeting presentation
- 6.2 EAtHC MSDI WG Action List



# 1<sup>st</sup> Meeting of the EAtHC MSDI WG

## **Eastern Atlantic Hydrographic Commission Marine Spatial Data Infrastructure Working Group**

**Portuguese Hydrographic Office**

February, 17<sup>th</sup> 2022 (VTC)



**IHO**

## AGENDA

International  
Hydrographic  
Organization

**1**

**Working Group Chair and Vice-Chair**

**2**

Terms of Reference and Rules of Procedure

**3**

Strategic Performance Indicators approach

**4**

Actions list

**5**

Other subjects



IHO

## 1. WG CHAIR AND VICE-CHAIR

International  
Hydrographic  
Organization

**EAtHC16 Decision 17:** Note MSDI report.

**EAtHC16 Decision 18:** Agree to establish EAtHC MSDI WG.

**EAtHC16 Decision 19:** Agree to have Portugal leading MSDI WG. Portugal must propose the ToRs NLT December 31 2021.

**EAtHC16 Decision 20:** EAtHC MSDI WG to be responsible for the support to Seabed 2030, Crowdsourced Bathymetry and other programs/projects related with managing and sharing marine spatial data and for support of disaster response framework if required.

### ➔ **Confirmation of Portugal as Chair – LtCdr Telmo Dias**

- EAtHC Crowdsourced Bathymetry representative
- EAtHC Seabed 2030 representative

### ➔ **Volunteers to be Vice-Chair**



IHO

## AGENDA

International  
Hydrographic  
Organization

1

Working Group Chair and Vice-Chair

2

**Terms of Reference and Rules of Procedure**

3

Strategic Performance Indicators approach

4

Actions list

5

Other subjects





**IHO**

International  
Hydrographic  
Organization

## **2. TERMS OF REFERENCE AND RULES OF PROCEDURE**



IHO

## AGENDA

International  
Hydrographic  
Organization

1

Working Group Chair and Vice-Chair

2

Terms of Reference and Rules of Procedure

3

**Strategic Performance Indicators approach**

4

Actions list

5

Other subjects

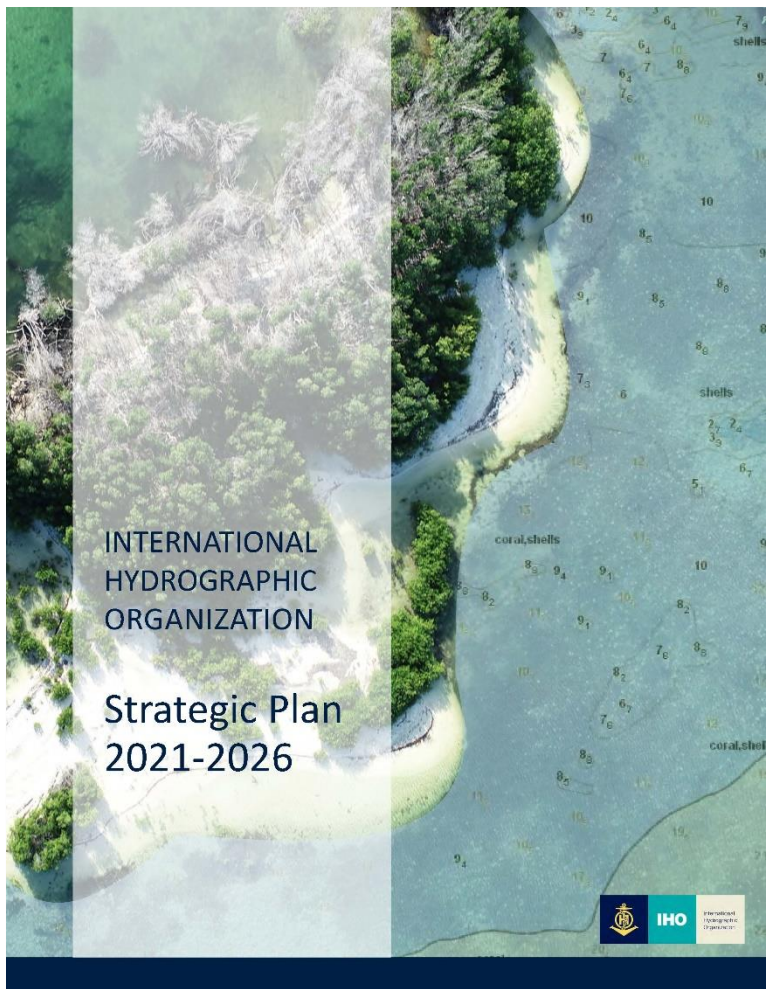


IHO

### 3. STRATEGIC PERFORMANCE INDICATORS (SPI) APPROACH

#### 3.1. IHO STRATEGIC PLAN

International Hydrographic Organization



#### Strategic Performance Indicators (SPI)

Targets	SPI (measure for success)	Comments <sup>2</sup>
<b>Goal 1: Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation</b>		
1.1 Deliver standards for hydrographic data and specifications of hydrographic products; support their regular production; and coordinate regional and global services for their provision.	1.1.1 Percentage of Member States having operationalized production and distribution of hydrographic data products and services based on IHO Universal Hydrographic Data Model (S-100), under an implementation framework of coordination and agreed timelines (2026: 100%). 1.1.2 Number of hydrographic data products and services based on Universal Hydrographic Data Model that cater for the new requirements: autonomous shipping, reduction of emission.	1.1.1 Percentage of MS currently (2019) providing digital products
1.2 Develop standards, specifications and guidelines in the areas of data assurance, including cyber security and data quality assessment.	1.2.1 Percentage of hydrographic data products and services based on S-100 model that are covered by IHO standards, specifications and guidelines on cyber security (2026: 100%). 1.2.2 Percentage of navigationally significant areas (e.g. charted traffic separation schemes, anchorages, channels) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators (2026:100%).	1.2.2 Calculation method to be consistent with C55 calculation
Targets	SPI (measure for success)	Comments <sup>2</sup>
<b>Goal 2: Increasing the use of hydrographic data for the benefit of society</b>		
2.1 Build a portal to support and promote regional and international cooperation in marine spatial data infrastructures (MSDI).	2.1.1 Number of hits downloading data/information from the portal.	2.1.1 Monitoring will be based on the increase of the value of the indicator and assessment of its significance
2.2 Promote new tools and methods to accelerate and increase coverage, consistency, quality of surveys in poorly surveyed areas.	2.2.1 Percentage of adequately surveyed area per coastal state. 2.2.2 Number of new applications of the new version of Standards for Hydrographic Surveys (S-44)	2.2.1 See C-55 2.2.2 Success of new edition of S-44 assessed from its applications to new fields



IHO

### 3. STRATEGIC PERFORMANCE INDICATORS (SPI) APPROACH

#### 3.2. SPI 1.2.2

##### → SPI 1.2.2:

- Percentage of **navigationally significant areas** (e.g. charted traffic separation schemes, anchorages, channels) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators (2026:100%).

- The term “navigationally significant areas” is to define precisely (with a list of features) to enable Member States to identify the areas concerned in their waters.
- The definition of this SPI to be clarified in order not to create ambiguity with SPI 2.2.1, here the objective is to have a CATZOC in the area whatever is the hydrographic knowledge
- The proposed way forward seems unclear as written, it is recommended to use CATZOC present in ENC's to measure the SPI when areas will be defined
- C-55 does not look useful for this SPI in its current format with no distinction on navigationally significant areas
- C-55 is based on 2 depth classes only



IHO

### 3. STRATEGIC PERFORMANCE INDICATORS (SPI) APPROACH

#### 3.2. SPI 1.2.2

International  
Hydrographic  
Organization

##### ➔ SPI 1.2.2:

- Percentage of **navigationally significant areas** (e.g. charted traffic separation schemes, anchorages, channels) for which the adequacy of the hydrographic knowledge is assessed through the use of appropriate quality indicators (2026:100%).

##### ➔ Problem:

- Definition of navigationally significant areas.

##### ➔ Possible goal:

- After the identification of the **navigationally significant areas**;
- Coverage of **CATZOC** polygons in those areas.

##### ➔ Possible outcome:

- Percentage of **CATZOC** polygons coverage in the **navigationally significant areas**.



IHO

### 3. STRATEGIC PERFORMANCE INDICATORS (SPI) APPROACH

#### 3.3. SPI 2.2.1

##### → SPI 2.2.1:

- Percentage of **adequately surveyed area** per coastal state.

- This item should be led by MSDIWG in RHCs
- Proposal to subdivide this SPI in CATZOC orders in order to have better view on the hydrographic knowledge (as presented in the French national hydrographic program)
- Is C-55 enough reliable to use it for the SPI measurement?
- Is CATZOC suitable according to the Goal and Target? What the term “adequately” means? Is the purpose to identify areas that are not surveyed? Is S-44 to be consider? Is the use of 200m depth a good criteria? Can we use Seabed 2030 coverage as a first approach?



IHO

### 3. STRATEGIC PERFORMANCE INDICATORS (SPI) APPROACH

#### 3.3. SPI 2.2.1

##### ➔ SPI 2.2.1:

- Percentage of **adequately surveyed area** per coastal state.

##### ➔ Problem:

- Definition of adequately surveyed area

##### ➔ Possible methodologies:

- In oceanic areas (e.g. > 200 m depth):
  - One unique survey is enough for navigation, scientific research, etc., purposes (?);
  - Full seafloor search, equal or better than CATZOC A2 (?);
- In coastal and harbour areas (safety of navigation):
  - Hydrographic survey has to be repeated at a predefined rate, to account for seafloor changes that impact navigation;
  - The need for a CATZOC decay coefficient.





IHO

### 3. STRATEGIC PERFORMANCE INDICATORS (SPI) APPROACH

#### 3.3. SPI 2.2.1

International Hydrographic Organization

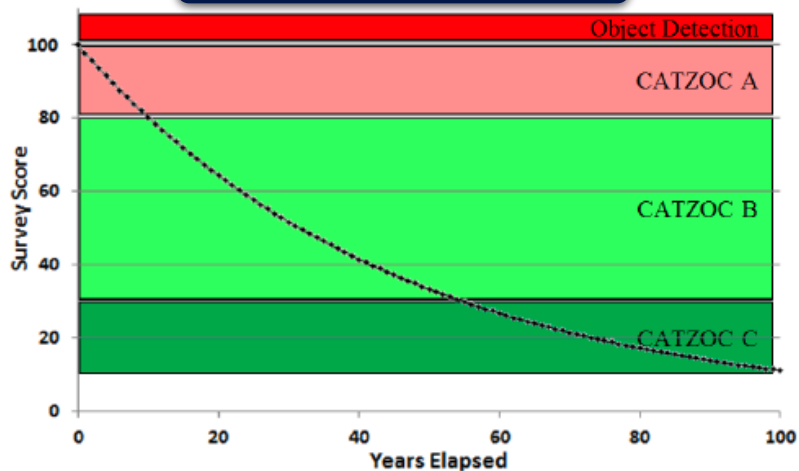
#### ➔ SPI 2.2.1:

- Percentage of **adequately surveyed area** per coastal state.

#### ➔ Possible outcome:

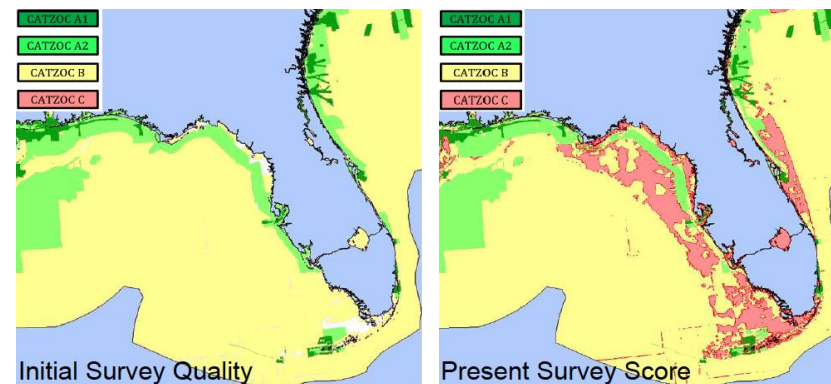
$$\text{Hydrographic Gap} = \text{Desired Survey Score} - \text{Present Survey Score}$$

#### Survey Score Decay



- Seafloor complexity
- Under keel clearance

- Survey order (S-44)
- Seafloor changeability
- Time elapsed







IHO

## AGENDA

International  
Hydrographic  
Organization

1

Working Group Chair and Vice-Chair

2

Terms of Reference and Rules of Procedure

3

Strategic Performance Indicators approach

4

**Actions list**

5

Other subjects



IHO

## 4. ACTIONS LIST

### 4.1. EAtHC16 (MSDI) ACTIONS LIST

International  
Hydrographic  
Organization

Action Item	Description	Date to Report	Responsibility	Done
EAtHC16 (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	
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	
<del>EAtHC16 (MSDI) - 3</del>	<del>Enrol as members in EAtHC MSDI WG.</del>	<del>EAtHC17</del>	<del>Coastal States</del>	<del>Completed</del>
<del>EAtHC16 (MSDI) - 4</del>	<del>Propose the terms of reference (ToR) and rules of procedure (RoP) of the EAtHC MSDI WG.</del>	<del>December 31, 2021</del>	<del>Portugal</del>	<del>Completed</del>
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	
EAtHC16 (MSDI) - 6	Build an inventory (with links) of existing MSDI in the EAtHC region.	EAtHC17	MSDI WG	



IHO

## 4. ACTIONS LIST

### 4.2. MSDI WG ACTIONS LIST

International  
Hydrographic  
Organization

Action Item	Description	Date to Report	Responsibility
EAtHC (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
EAtHC (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
EAtHC (MSDI) 3	Create a web page with supporting documents and information.	EAtHC17	MSDI WG
EAtHC (MSDI) 4	Create a web app with: - Existing SDI and MSDI in the region; - Common base layers to MSDI projects and support disaster response framework (bathymetry, shoreline, maritime boundaries, existing and planned surveys, etc.); - SPI support layers (CATZOC, IHO S-44 Orders, Map Coverage, Hydrographic Gap); - ...	EAtHC17	MSDI WG
EAtHC (MSDI) 5	SPI 1.2.2 measuring approach proposal SPI 2.2.1 measuring approach proposal	March 2022	MSDI WG



IHO

## AGENDA

International  
Hydrographic  
Organization

1

Working Group Chair and Vice-Chair

2

Terms of Reference and Rules of Procedure

3

Strategic Performance Indicators approach

4

Actions list

5

**Other subjects**



**IHO**

## **5. OTHER SUBJECTS**

International  
Hydrographic  
Organization



# 1<sup>st</sup> Meeting of the EAtHC MSDI WG

## **Eastern Atlantic Hydrographic Commission Marine Spatial Data Infrastructure Working Group**

**Portuguese Hydrographic Office**

February, 17<sup>th</sup> 2022 (VTC)

Action Item	Description	Date to Report	Responsability	Done
EAtHC16 (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	
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	
<del>EAtHC16 (MSDI) - 3</del>	<del>Enrol as members in EAtHC MSDI WG.</del>	<del>EAtHC17</del>	<del>Coastal States</del>	<del>Completed</del>
<del>EAtHC16 (MSDI) - 4</del>	<del>Propose the terms of reference (ToR) and rules of procedure (RoP) of the EAtHC MSDI WG.</del>	<del>December 31, 2021</del>	<del>Portugal</del>	<del>Completed</del>
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	
EAtHC16 (MSDI) - 6	Build an inventory (with links) of existing MSDI in the EAtHC region.	EAtHC17	MSDI WG	

Action Item	Description	Date to Report	Responsability
EAtHC (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
EAtHC (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 Costal States
EAtHC (MSDI) 3	Create a web page with supporting documents and information.	EAtHC17	MSDI WG
EAtHC (MSDI) 4	Create a web app with: - Existing SDI and MSDI in the region; - Common base layers to MSDI projects and support disaster response framework (bathymetry, shoreline, maritime boundaries, existing and planned surveys, etc.); - SPI support layers (CATZOC, IHO S-44 Orders, Map Coverage, Hydrographic Gap); - ...	EAtHC17	MSDI WG
EAtHC (MSDI) 5	SPI 1.2.2 measuring approach proposal SPI 2.2.1 measuring approach proposal	Dormant	MSDI WG