

# INTERNATIONAL HYDROGRAPHIC ORGANIZATION

Annual Report 2021

Work Programme and Budget,  
Strategic Plan, and  
Performance Monitoring

Status Report on  
Performance Monitoring  
related to the Strategic Plan of  
IHO 2021-2026



**IHO**

International  
Hydrographic  
Organization



## Background

The IHO Strategic Plan 2021 – 2026 comprises four sections:

- I **Preamble** – introduction to the IHO, its vision, mission, and objects. The wording is drawn from the Convention on the IHO.
- II **Challenges** – overview of the strategic context within which the IHO and Member States operate now and will operate in the near future and how this may impact activities.
- III **Goals** – targets for 2026 and Strategic Performance Indicators.
- IV **Implementation Framework** – briefly outlines how the plan is enacted and how progress with respect to the plan is reviewed and monitored.

To face the challenges described under section II, the plan is structured through three overarching goals, focusing the exercise of its mission during this period. Under the three goals, the Organization has identified targets to be reached by 2026.

The Strategic Plan is design to focus on three most relevant goals to be addressed in the two trienniums but is not a comprehensive description of the full scope of IHO activities, which is fully covered in its Work Programme. Therefore the second Assembly also endorsed the alignment of the 2021 and three-year IHO Work Programme 2021-2023 with the Strategic Plan, while keeping the current structure of the Work Programme to facilitate the operational work and implementation by the Secretariat.



## Progress monitoring

Success in achieving the Strategic Goals and Targets is measured by Strategic Performance Indicators (SPIs). The Council determines the method for calculating the performance indicators. The alignment of those indicators to the relevant elements of IHO's Work Programme demonstrates the interrelation between ambitions of the Strategic Plan, the Work Programme and the Secretariat's operational work.

## Council oversees the implementation of the strategic goals and targets

The 2nd Assembly instructed the Council to monitor closely the appropriateness and applicability of the proposed SPI and amend them if necessary. In doing so, the application of the SPIs was allocated to the Secretary-General for Work Programme 1, the Hydrographic Standards & Service Committee (HSSC) for Work Programme 2 and the Interregional Coordination Committee (IRCC) for Work Programme 3 respectively.

In view of the overarching importance of the Strategic Plan to achieve the goals and targets of the Organization, the Council measures the effective implementation of the Strategic Plan through annual review of the SPI reported for the three Work Programmes, by keeping in mind to apply the principles of ISO 9001 as an important theme of the Council activities for the intersessional period towards the third Assembly in 2023.

## IHO bodies striving to measure success

The fifth meeting of the Council in October 2021 was the first opportunity to reflect over the implementation of the goals and targets of the Strategic Plan 2021-2026 since its inception. The Secretary-General and the Chairs of HSSC and IRCC reported about their experimentations with the assigned SPIs in particular for meeting Goals 2 and 3.

The Council approved the suggestion to measure the notable activities under Work Programme 1 in four categories.

- Global outreach
- Regional outreach
- Stakeholder's specific outreach
- Consultations as SPIs

The Council also agreed to the SPI metrics as proposed by HSSC and IRCC<sup>1</sup> and provided tentative values and comments. Both committees will instruct their respective subordinate subcommittees and working groups to collaboratively work out methodologies to measure and provide the resulting numbers as part of their future annual reports to Council. IRCC was tasked to engage with the Regional Hydrographic Commissions to design relevant implementation procedures as appropriate for the respective local conditions

The Council endorsed the HSSC proposal that ISO 9001 principles will be experimented on the development of the Product Specification for ENC S-101 ed. 2.0.0 and invited IRCC to identify a theme and scope at their next meeting.

<sup>1</sup>Work in progress, workshop planned for April 2022

## **GOAL 1** Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation.

On-going transformation in navigation, such as e-navigation, autonomous shipping, reduction of emissions, lead to profound evolution of hydrographic services, in a context of high demands for digital data.

### **Targets supporting Goal 1**

- Deliver standards for hydrographic data and specifications of hydrographic products; support their regular production; and coordinate regional and global services for their provision.
- Develop standards, specifications and guidelines in the areas of data assurance, including cyber security and data quality assessment.
- Use capacity building and training to develop and increase the ability of Member States to support safety and efficiency of maritime navigation.



### **Strategic Performance Indicators validating the targets supporting Goal 1**

- SP 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.
- SP 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 emissions.
- SP 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.
- SP 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.
- SP 1.3.1** Ability and capability of Member States to meet the requirements and delivery phases of the S100 implementation plan.



## Strategic Performance Indicators for Goal 1

### Work Programme Tasks related to SPI 1.1.1 and 1.1.2

- 1.1 Co-operation with International Organizations and participation in relevant meetings
- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 2.1 Programme Coordination
- 2.2 Foundational Nautical Cartography Framework
- 2.3 S-100 Framework
- 2.4 S-57 Framework
- 2.5 Support the implementation of e-navigation and Marine Spatial Data Infrastructures (MSDI)
- 3.4 Coordination of Global Surveying and Charting Coverage
- 3.5 Maritime Safety Information

SPI 1.1.1	Metrics	Member States distribute at least one product based on S-100.						
	2021	0%	2022	2023	2024	2025	2026	60% <sup>2</sup>
SPI 1.1.2	Metrics	Product Specifications should be operational (e.g. Edition 2.0.0 approved by Member States.)						
	2021	0	2022	2023	2024	2025	2026	10 <sup>3</sup>





## Work Programme Tasks related to SPI 1.2.1 and 1.2.2

- 1.1 Co-operation with International Organizations and participation in relevant meetings
- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 2.1 Programme Coordination
- 2.2 Foundational Nautical Cartography Framework
- 2.3 S-100 Framework
- 2.4 S-57 Framework
- 2.5 Support the implementation of e-navigation and Marine Spatial Data Infrastructures (MSDI)
- 2.6 Hydrographic Surveying
- 2.8 Other technical standards, specifications, guidelines and tools
- 3.4 Coordination of Global Surveying and Charting Coverage
- 3.5 Maritime Safety Information

SPI 1.2.1	Metrics	10 Product Specifications (same as in SPI 1.1.2) includes cyber security and data quality assessment.						
	2021	0	2022	2023	2024	2025	2026	10 <sup>4</sup>

SPI 1.2.2	Metrics	Methodology to measure based on CATZOC evaluation under development.						
	2021	/	2022	2023	2024	2025	2026	100%

## Work Programme Tasks related to SPI 1.3.1

- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 3.2 Regional Hydrographic Commissions and the HCA
- 3.3 Capacity Building

SPI 1.3.1	Metrics	Categories to measure ability and capability of Member States to meet the requirements and delivery phases of the S100 implementation plan.						
	2021	/	2022	2023	2024	2025	2026	50%

<sup>2</sup>Based on 64 of 94 IHO Member States produce S-57 ENCs

<sup>3</sup>They are: S-101, S-102, S-104, S-111, S-122, S-124, S-127, S-128, S-129, S-131

<sup>4</sup>They are: S-101, S-102, S-104, S-111, S-122, S-124, S-127, S-128, S-129, S-131



## GOAL 2 Increasing the use of hydrographic data for the benefit of society.

The ever-growing applications of marine data entails that IHO takes a more prominent role in cultivating the use of hydrographic data through cooperative and collaborative efforts and identifying the need for collecting more data.

### Targets supporting Goal 2

- Build a portal to support and promote regional and international cooperation in marine spatial data infrastructures (MSDI).
- Promote new tools and methods to accelerate and increase coverage, consistency, quality of surveys in poorly surveyed areas.
- 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.

### Strategic Performance Indicators validating the targets supporting Goal 2

- SP 2.1.1** Number of hits downloading data/information from the portal.
- SP 2.2.1** Percentage of adequately surveyed area per coastal state.
- SP 2.2.2** Number of new applications of the new version of Standards for Hydrographic Surveys (S-44).
- SP 2.3.1** Number of HOs reporting success applying the principles in their national contexts.





## Strategic Performance Indicators for Goal 2

### Work Programme Tasks related to SPI 2.1.1

- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 3.3 Capacity Building
- 3.7 Marine Spatial Data Infrastructures

SPI 2.1.1	Metrics	Portal in design phase, download counting technology to be implemented.					
	2021	/	2022	2023	2024	2025	2026

### Work Programme Tasks related to SPI 2.2.1 and 2.2.2

- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 2.6 Hydrographic Surveying
- 2.8 Other technical standards, specifications, guidelines and tools
- 3.2 Regional Hydrographic Commissions and the HCA
- 3.3 Capacity Building
- 3.4 Coordination of Global Surveying and Charting Coverage
- 3.6 Ocean Mapping Programme
- 3.8 International Standards for Hydrographic Surveyors and Nautical Cartographers

SPI 2.2.1	Metrics	Technology to generate percentage figures from C-55 under discussion.					
	2021	See C-55	2022	2023	2024	2025	2026

SPI 2.2.2	Metrics	Number of downloads of S-44. New applications/survey methods/platforms used as a result of S-44 Edition 6.0.0.					
	2021 downloads	59	2022	2023	2024	2025	2026
	2021 applications	0	2022	2023	2024	2025	2026

### Work Programme Tasks related to SPI 2.3.1

- 1.1 Cooperation with International Organizations and participation in relevant meeting
- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 3.7 Marine Spatial Data Infrastructures

SPI 2.3.1	Metrics	Extension of P-5 required.					
	2021	0	2022	2023	2024	2025	2026

## **GOAL 3** Participating actively in international initiatives related to the knowledge and the sustainable use of the Ocean.

IHO's ambition is to be an effective and recognized contributor to the major Ocean related challenges identified by the international community.

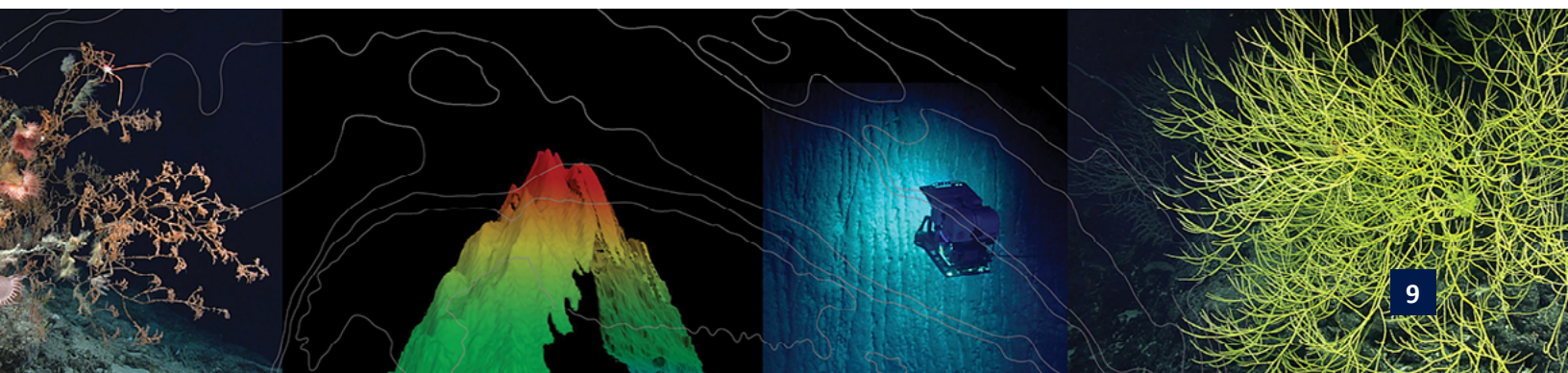
### **Targets supporting Goal 3**

- Collaborate with other bodies who deliver capacity building and training to improve effectiveness of capacity building activities and programmes.
- Improve knowledge of the world's seafloors.
- Implement a comprehensive IHO digital communication strategy in order to enhance its visibility and accessibility to its work.



### **Strategic Performance Indicators validating the targets supporting Goal 3**

- SP 3.1.1** Percentage of Coastal States that are able to provide marine safety information (MSI) according to the joint IMO/IHO/WMO manual on MSI.
- SP 3.2.1** Amount of data received per year by the IHO Data Centre for Digital Bathymetry (DCDB).
- SP 3.2.2** Number of contributors to DCDB who are not hydrographic offices.
- SP 3.2.3** Percentage of total sea area that is Seabed 2030 compliant for ingestion into the GEBCO dataset and services.
- SP 3.3.1** Number of visits, likes, re-postings, etc. associated to the IHO social media sites.
- SP 3.3.1** Volume downloaded from the IHO website and Geographical Information System (GIS).





## Strategic Performance Indicators for Goal 3

### Work Programme Tasks related to Secretariat's activities addressing Goal 3

1.3 Co-operation with International Organizations and participation in relevant meetings

3.6 Public Relations and Outreach

1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring

Metrics	Notable activities undertaken under the IHO Work Programme 1 2021 in four categories.					
Global outreach 2021	13	2022	2023	2024	2025	2026
Regional outreach 2021	4	2022	2023	2024	2025	2026
Stakeholder's specific outreach 2021	15	2022	2023	2024	2025	2026
Consultations	2	2022	2023	2024	2025	2026

### Work Programme Tasks related to SPI 3.1.1

1.1 Co-operation with International Organizations and participation in relevant meetings

1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring

3.1 Programme Coordination

3.2 Regional Hydrographic Commissions and the HCA

3.3 Capacity Building

3.6 Ocean Mapping Programme

3.7 Marine Spatial Data Infrastructures

SPI 3.1.1	Metrics	Percentage of Coastal States that are capable to provide marine safety information (MSI) according to the joint IMO/IHO/WMO manual on MSI [WWNWS and CBSC tasked to develop a collaborative approach how to measure and count.]						
	2021	0	2022	2023	2024	2025	2026	90%

### Work Programme Tasks related to SPI 3.2.1, 3.2.2, and 3.2.3

- 1.1 Co-operation with International Organizations and participation in relevant meetings
- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 3.1 Programme Coordination
- 3.2 Regional Hydrographic Commissions and the HCA
- 3.6 Ocean Mapping Programme




SPI 3.2.1	Metrics	Amount of data received per year by the IHO Data Centre for Digital Bathymetry (DCDB tasked to start measurement.)					
	2021	/	2022	2023	2024	2025	2026

SPI 3.2.2	Metrics	Number of contributors to DCDB who are not hydrographic offices (DCDB tasked to measure.)					
	2021	/	2022	2023	2024	2025	2026

SPI 3.2.3	Metrics	Percentage of total sea area that is Seabed 2030 compliant for ingestion into the GEBCO dataset and services [DCDB tasked to start measurement in collaboration with BOC (UK).]					
	2021	/	2022	2023	2024	2025	2026

### Work Programme Tasks related to SPI 3.3.1 and SPI 3.3.2

- 1.2 Information Management
- 1.3 Public Relations and Outreach
- 1.4 Work Programme & Budget, Strategic Plan and Performance Monitoring
- 3.3 Capacity Building
- 3.4 Coordination of Global Surveying and Charting Coverage
- 3.6 Ocean Mapping Programme

SPI 3.3.1	Metrics	Followers on LinkedIn, facebook and twitter					
	2021	Views					
		4263/ 177,600	2022	2023	2024	2025	2026
		673/ 2049	2022	2023	2024	2025	2026
		566/ 77,200	2022	2023	2024	2025	2026

SPI 3.3.2	Metrics	Number of IHO website page views, users characteristics					
Web site page views 2021		380,946	2022	2023	2024	2025	2026
User groups identified 2021		5	2022	2023	2024	2025	2026