Highlights of HSSC 13

Hydrographic Services and Standards Committee

SAIHC 18 (2022)

Magnus Wallhagen HSSC Chair

Nathalie Leidinger HSSC Vice-Chair

IHO International Hydrographic Organization

Update items to be reported

- Implementation of the Strategic Performance Indicators (SPIs)
- Experimentation on the application of ISO 9001 principles on the development of S-101 PS
- Progress in the implementation of the roadmap for the S-100 decade (2020-2030)
- Potential options for HOs for future production of S-101 ENCs in conjunction with S-57
- Future S-100 ECDIS and dual-fuel concept
- Establishment of new Project Teams
- Others achievements or progress

Strategic Performance Indicators (SPIs) allocated for HSSC (1/3)

IHO Strategic Plan

(https://iho.int/uploads/user/About%20IHO/strategic%20plan%20summary%208.5x11%20-%2017nov20.pdf)

Targets	Strategic Performance Indicator (SPI)-measurement for success	Lead and Metric	
Goal 1: Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation			
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%).	**HSSC** 0 % of MS distribute at least one product based on S-100 60 % * of MS distribute at least one product based on S-100.	←January 2021 ←January 2026
	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.	**HSSC** 0 Product Specification operational 10** Product Specifications should be operational (ed 2.0.0.)	←January 2021 ←January 2026

* Based on that 62 of 94 IHO MS produce S-57 ENCs (March 2021)

** S-101, S-102, S-104, S-111, S-122, S-124, S-127, S-128, S-129, S-131

Strategic Performance Indicators (SPIs) allocated for HSSC (2/3)

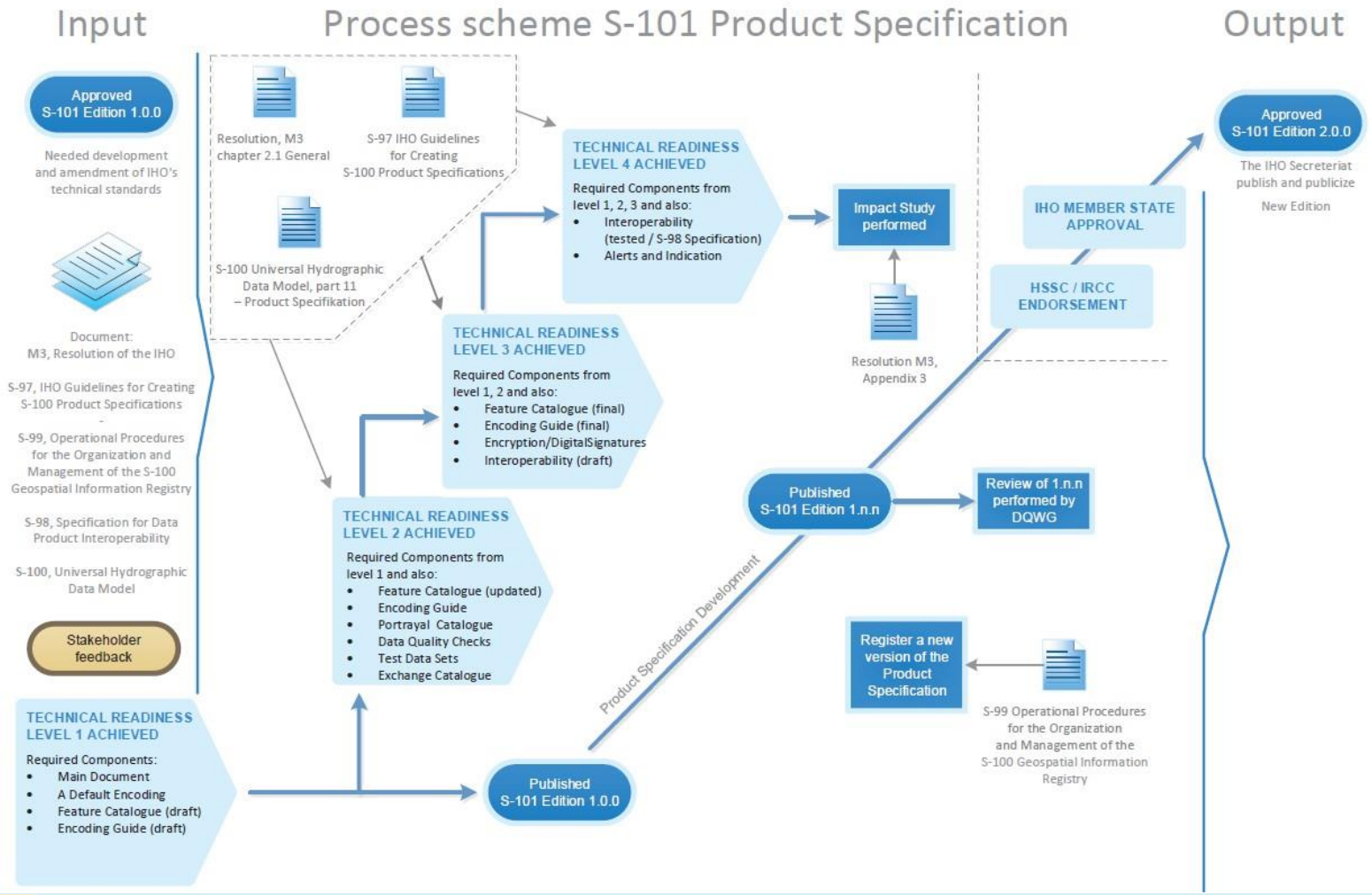
Targets	Strategic Performance Indicator (SPI)-measurement for success	Lead and Metric
Goal 1: Evolving the hydrographic support for safety and efficiency of maritime navigation, undergoing profound transformation		
1.2 Develop standards, specifications and guidelines in the areas of data assurance, including 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%).	**HSSC** 0** Product Specifications (same as in SPI 1.1.2) includes cyber security and data quality assessment ← January 2021 10** Product Specifications (same as in SPI 1.1.2) includes cyber security and data quality assessment ← January 2026
	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%).	**IRCC** Supported by HSSC

** S-101, S-102, S-104, S-111, S-122, S-124, S-127, S-128, S-129, S-131

Strategic Performance Indicators (SPIs) allocated for HSSC (3/3)

Targets	Strategic Performance Indicator (SPI)-measurement for success	Lead and Metric
Goal 2: Increasing the use of hydrographic data for the benefit of society		
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.	**IRCC**
	2.2.2 Number of new applications of the new version of Standards for Hydrographic Surveys (S-44).	**HSSC** Number of downloads of S-44 (Unknown - 2021) ←January 2021 Number of downloads of S-44 – (to be determined) ←January 2026

Experimentation on the application of ISO 9001 principles on the development of S-101 Product Specification



S-100 Implementation priorities

First step

Navigational
Route Monitoring Mode
S-98 Edition 1.0.0

S-101 ENC
S-102 Bathymetry
S-104 Water Level
S-111 Surface Currents
S-124 Navigational Warnings
S-129 UKC Management

Next step

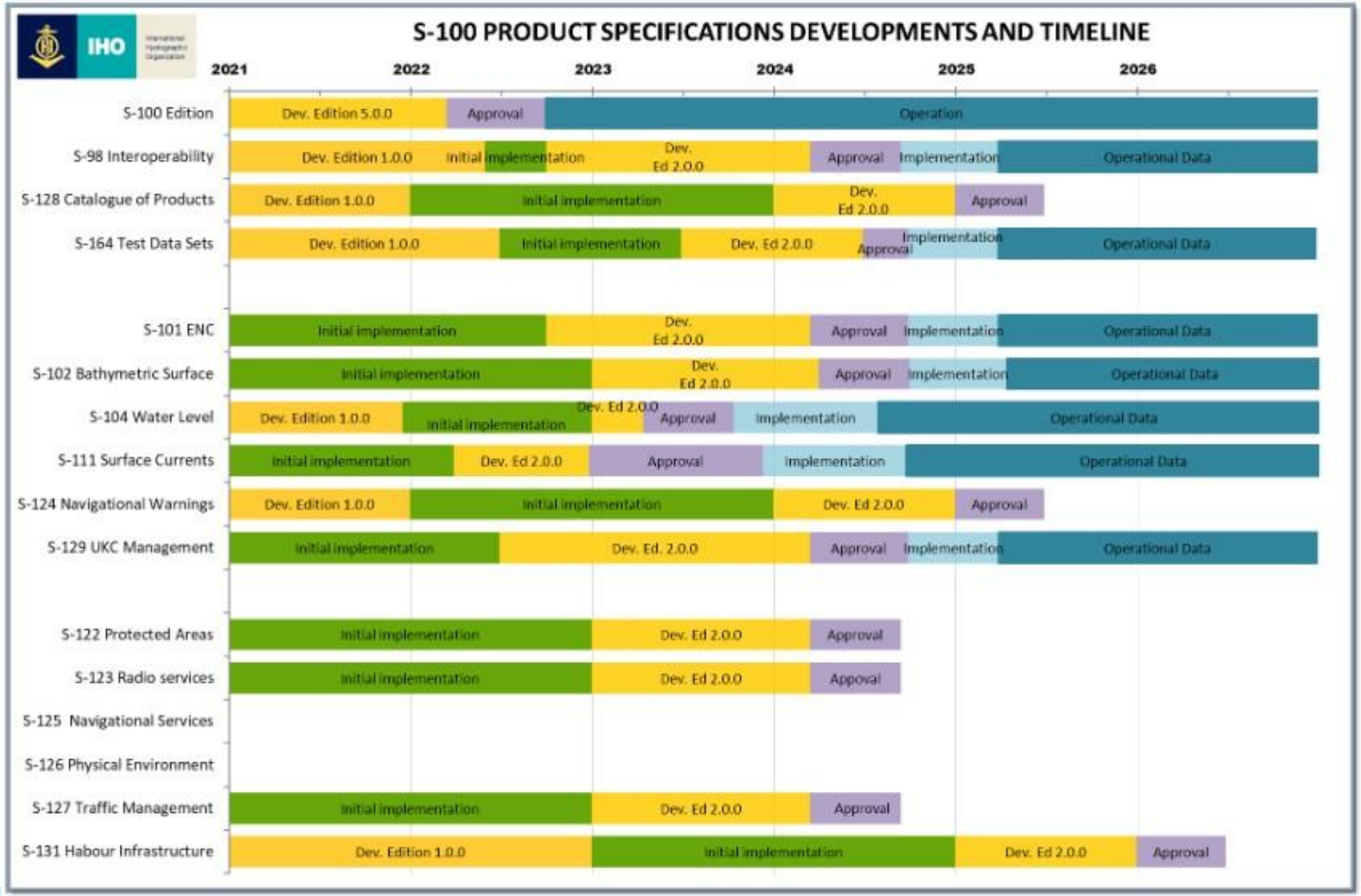
Navigational
Route Planning Mode
Future S-98 Editions

S-122 Marine Protected Areas
S-123 Marine Radio Services
S-125 Marine Navigational Services
S-126 Marine Physical Environment
S-127 Marine Traffic Management
S-131 Marine Harbour Infrastructure

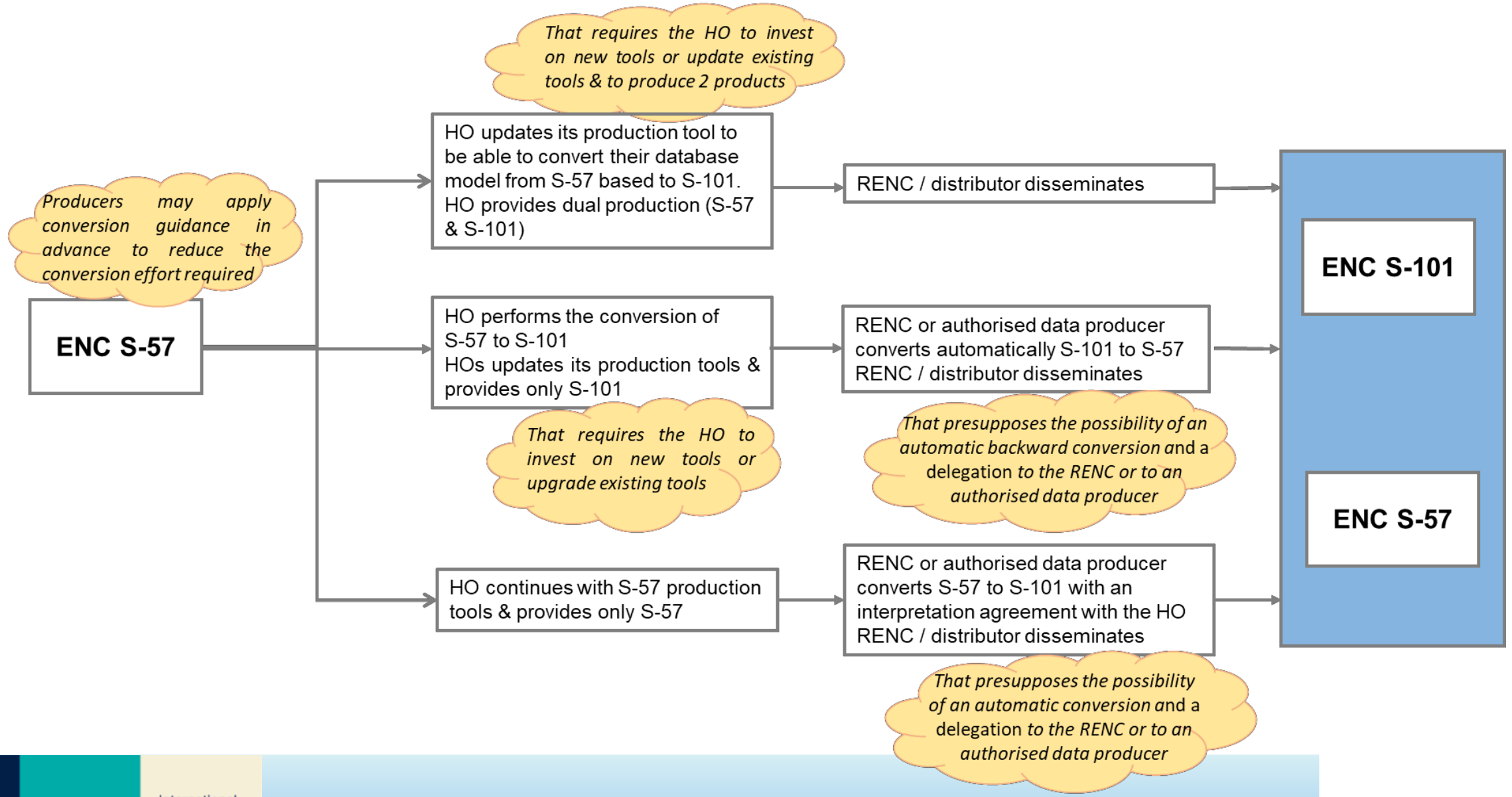
+ S-100 Products used in Monitoring Mode

S-128 Catalogue of Catalogues

S-100 Timeline for the prioritized IHO PS



Potential options for HOs for future production of S-101 ENCs in conjunction with S-57



Future S-100 ECDIS and Dual Fuel Concept

- <u>S-100 ECDIS</u>
  - Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) and the amendments to ECDIS performance standards (resolution MSC.232(82)) in provisional agenda for NCSR 9 (2022) for approval by MSC 104
  - Co-existence of S-57 with S-100 data during the transitionary period ➔ "dual fuel concept". S-100 ECDIS must be capable to read S-57 ENCs in addition to S-101 and other S-xxx layers.
- <u>HSSC Outcomes</u>:
  - Prepare a governance document on Dual Fuel Concept (to be presented to HSSC 14)
  - Set up a drafting group (with participation of CIRM, IEC, Intertanko) to prepare propositions for the revision of the IMO ECDIS Guidance & ECDIS Performance standard and submit drafted documents to NCSR 9.

Establishment of new PTs

- BASELINE SYMBOLOGY PT (subWG of NCWG)
  - ➔ from the recommendations on the future of paper charts,
  - ➔ aiming to support the automated production of paper charts from S-101 data.

- S-130 PT
  - ➔ develop the S-130 Polygonal Demarcations of Global Sea Areas Product Specification and Dataset,
  - ➔ The scope of this Project Team under HSSC is strictly limited to technical issues only.

- MARITIME AUTONOMOUS SURFACE SHIPS (MASS PT)
  - ➔ to identify and prioritize MASS navigation requirements,
  - ➔ to analyse their impacts on current hydrographic standards and services,
  - ➔ to develop a set of recommendations/issues to be addressed by existing working groups.

Others achievements or progress

- The Hydrographic Surveys WG (HSWG) has been established and start to work
- Marine Harbour Infrastructure (S-131) PS will be developed in connection with the International Harbour Association & the International PortCDM Council
- Proposal on themes and project for the IHO-Singapore Innovation and

  - Test the automated conversion of S-57 to S-101 ENCs
  - Prototype a S-131 database (and interface) for marine harbour information

endorsed at C5

HSSC recommendations for SAIHC

- Note the HSSC Report
- Note the proposed metrics for the SPIs and target values for 2026, consider the contribution of SAIHC Members to the SPIs under HSSC
- Note the potential options for future production of S-101 ENC in conjunction for S-57
- Note the establishment of the new PTs and encourage MSs to participate

- Take any other action as appropriate