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35th Meeting of the NSHC

**HSSC items relevant for NSHC, including the
S-100 Implementation Roadmap**

Agenda Item C1

NSHC35, Reykjavik Iceland, 5 - 6 April 2022



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ITEMS TO BE REPORTED

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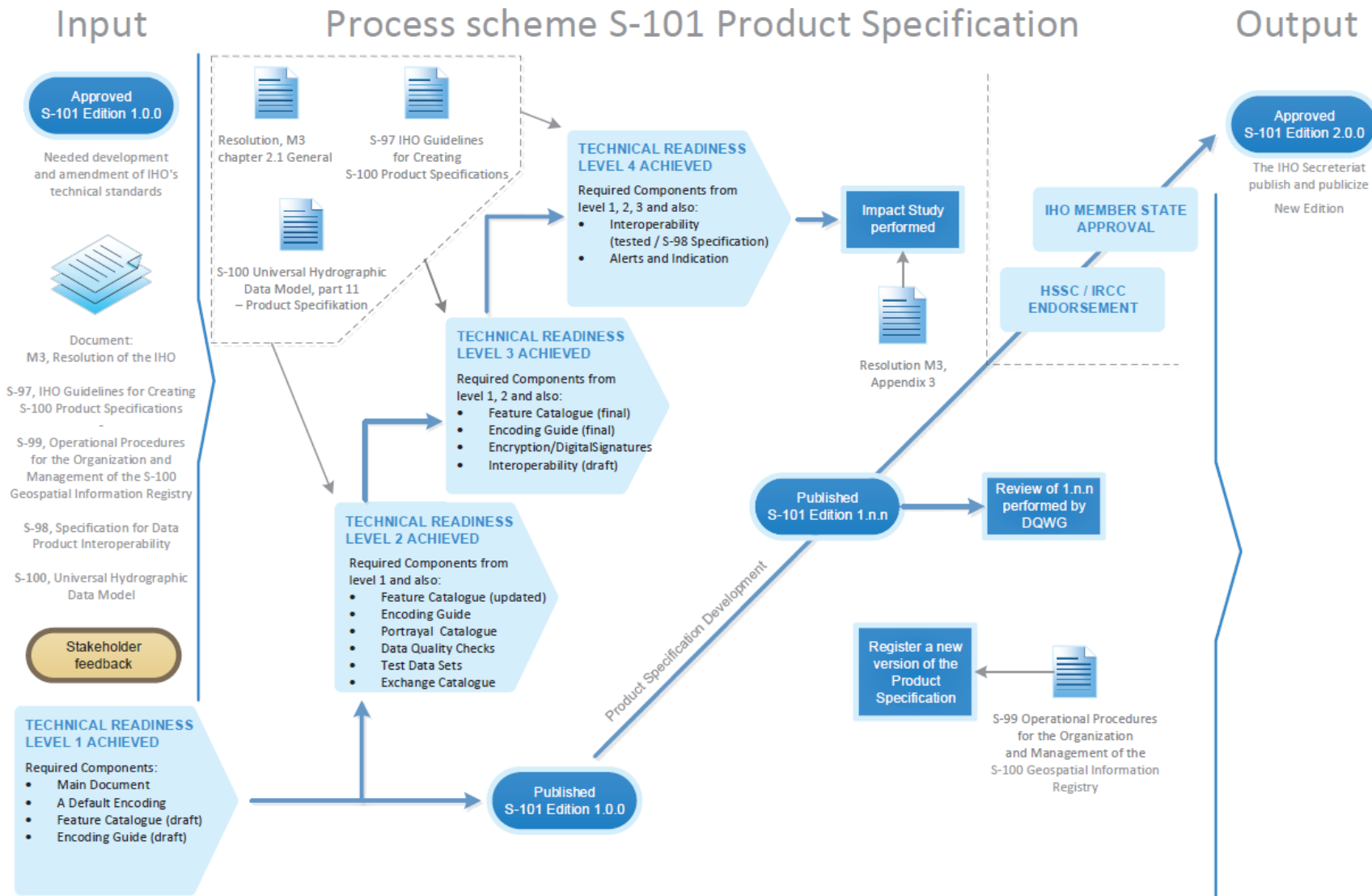
- ISO 9001 Principles experimented on S-101 development
- The implementation of the Roadmap for the S-100 Implementation Decade (2020 – 2030)
 - Priorities
 - Timeline
 - Dual fuel alternatives and Governance document
- Establishment of Working Group and Project Teams
- Highlights in the ongoing HSSC Work Plan
- Update on the implementation of the recommendations on the Future of the Paper Nautical Chart – NSHC35 agenda item C2.



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ISO 9001 PRINCIPLES WILL BE EXPERIMENTED ON THE DEVELOPMENT OF S-101 ENC, ED. 2.0.0

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S-100 IMPLEMENTATION PRIORITIES

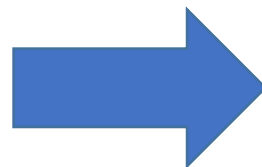
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First step

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

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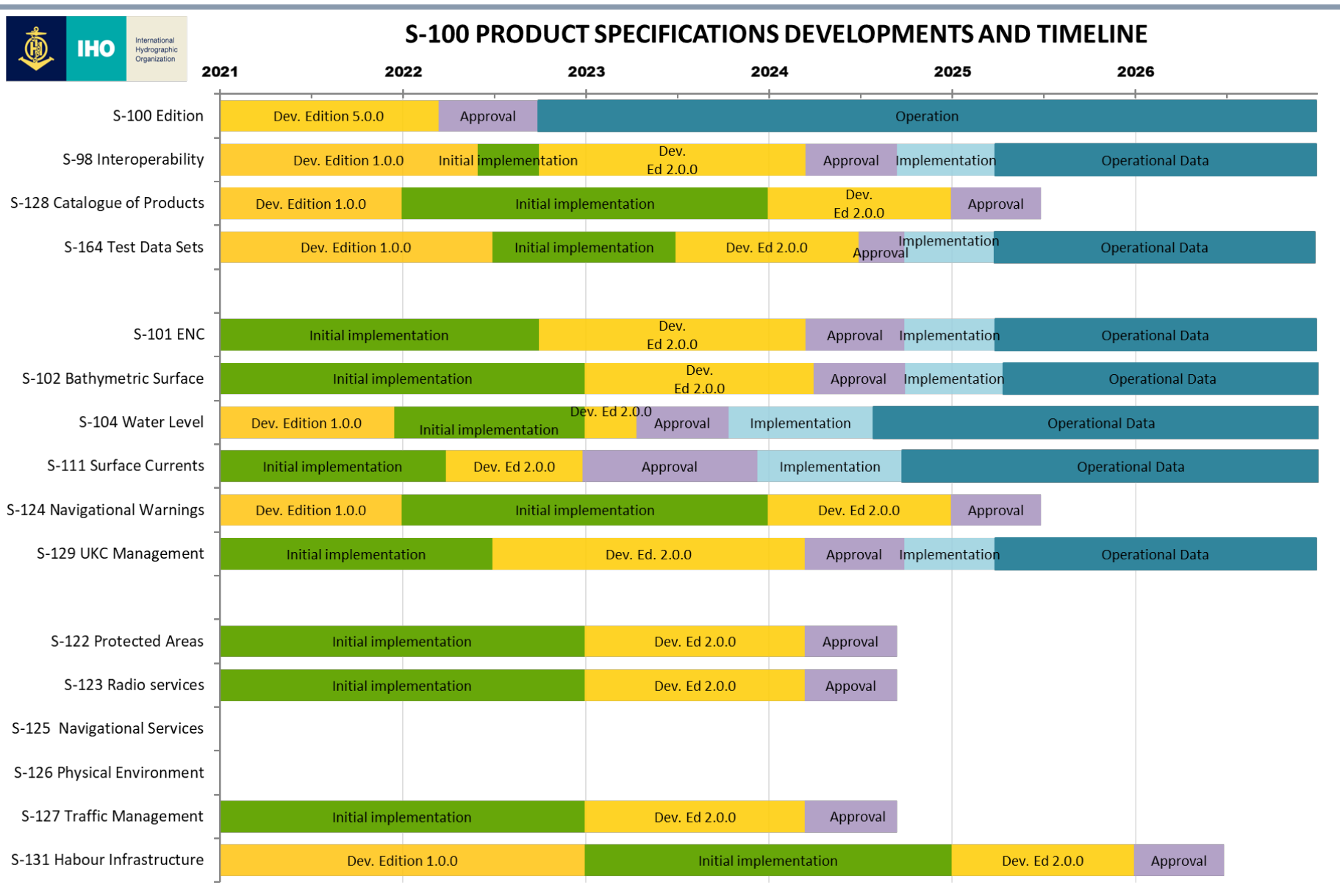


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S-100 IMPLEMENTATION ROADMAP, ANNEX 2

S-100 TIMELINE FOR THE PRIORITIZED PS

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The S-100 timeline;

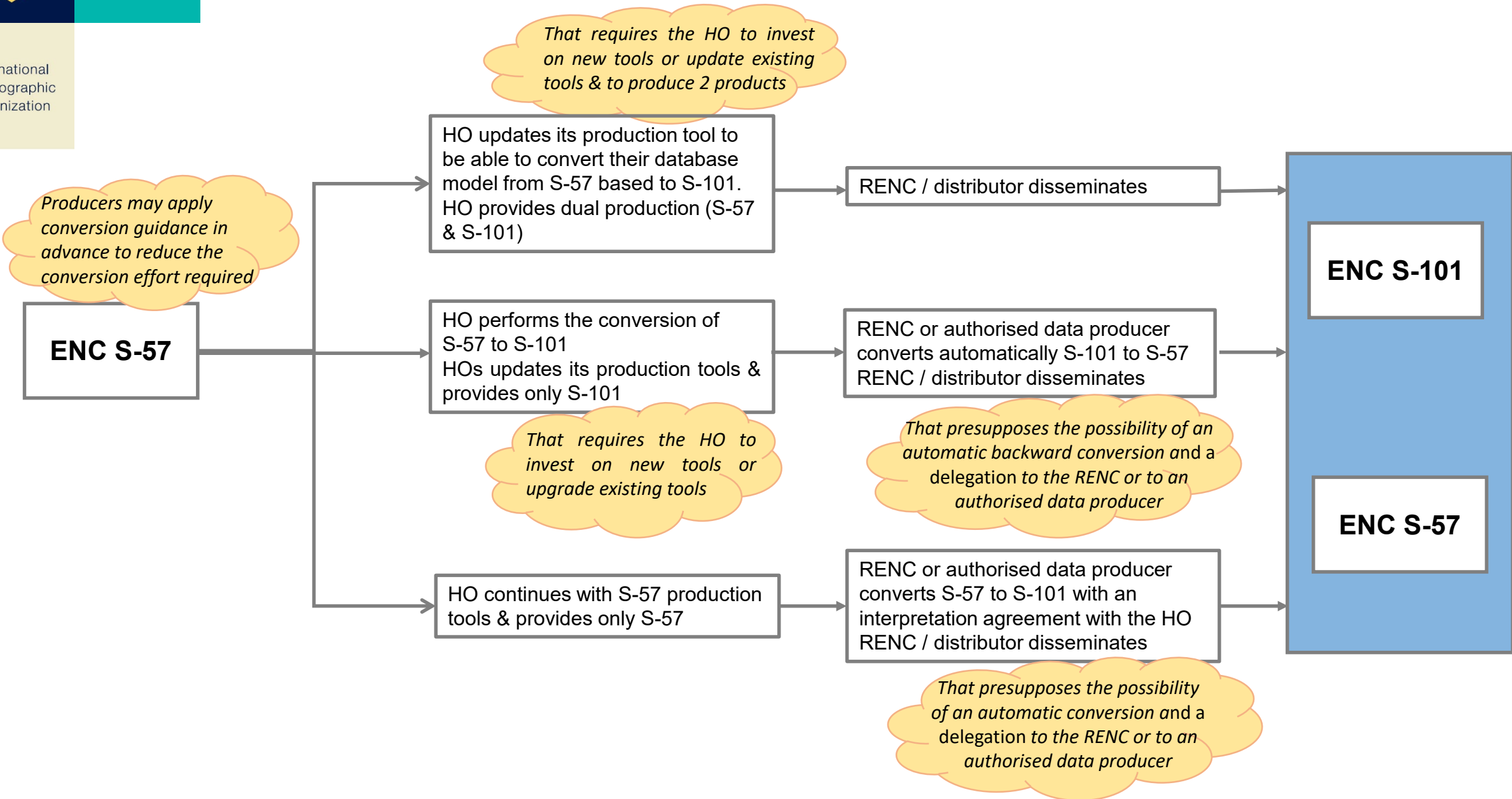
- to be maintained by the IHO Secretariat,
- version controlled Gantt Diagram,
- updated and reported annually to the IHO Council.



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S-100 IMPLEMENTATION ROADMAP, ANNEX 2 OPTIONS FOR HOs ON PARALLELL PROD. S-57 AND S-101

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GOVERNANCE DOCUMENT ON THE DUAL FUEL CONCEPT

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- S-100 ECDIS must be capable to read S-57 ENC's in addition to S-101 and other S-xxx layers. S-xxx will only work interoperable with S-101 ENC's, not S-57 ENC's (overlay might be an option).
- Governance Document on the Dual Fuel Concept will be presented by S-100 WG to HSSC 14 in May 2022. Subsequently to C-6.
- Governance Document was discussed at S-100WG 6 in January 2022.
- ENCWG guidance document for HOs on how ENC features can be enhanced to support automated conversion to S-101
- Expected collaboration between ENCWG and the IHO-Singapore Tech Lab on S-57 to S-101 conversion.
- Ongoing activities has been started on S-57 to S-101 by IC-ENC and PRIMAR

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REVISION OF IMO ECDIS DOCUMENTS ON S-100 ECDIS

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- Revision of ECDIS Guidance for Good Practice (MSC.1/Circ.1503/Rev.1) and ECDIS Performance Standards (resolution MSC.232(82)) in the agenda for NCSR 9 (21 – 30 June 2022), approved by MSC 104.
- Drafting group: subset of the HSSC Chair Group, CIRM, IEC, Intertanko.
- IHO has submitted a redline proposal to NCSR 9, co-sponsored by CIRM and Intertanko.
- A proposal to MSC 104 from EU MS to revise ECDIS Performance Standards to include standardized Route Plans and secure exchange (SECOM). Postponed to MSC 105, but has been coordinated within the IHO drafting group.
- IEC progress on updating IEC 61174 ECDIS Operational and Performance Requirements to include S-100. New edition 5 published 2024 (best case) – 2026 (worst case).



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ESTABLISHMENT OF WORKING GROUP AND PROJECT TEAMS

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- The **Hydrographic Surveys WG (HSWG)** has been established. First ordinary HSWG 1 meeting 29 June – 1 July.
- Following the A2/24 & 25 decision and the C4/07 decision, HSSC 13 agreed upon the establishment of a **Project Team** to develop a new **S-130** Polygonal Demarcations of Global Sea Areas Product Specification.
- HSSC 13 agreed to establish a **Project Team on Maritime Autonomous Surface Ship (MASS)** Navigation in order to address MASS requirements on navigation data and services.
 - 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.

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HIGHLIGHTS IN THE ONGOING HSSC WORK PLAN

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- The HSSC WGs/PTs are continuously monitoring the needs for amendments to the IHO Resolutions. No amended resolutions have been agreed upon by IHO MS since Council 4
- A proposal from S-102 PT and S-100WG to prioritize S-102, Bathymetric Surface, to navigation systems was discussed at HSSC 13. The impact of such a priority was further discussed at S-100WG 6 in January 2022 and will be reported to HSSC 14. Essentially S-102 will be prioritized for navigation, but after an operational version is ready for ECDIS development will continue to support usage for other stakeholders.
- The first edition of S-98 1.0.0 has agreed upon by S-100WG6 and will be submitted for approval to HSSC14. Interoperability between the prioritized S-100 PS (first step) is included.

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HIGHLIGHTS IN THE ONGOING HSSC WORK PLAN

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- NIPWG is progressing well with the development of S-131 – Marine Harbour Infrastructure. The PS is developed in liaison with the International Harbour Masters Association (IHMA) and the International Port CDM Council.
- HSSC has proposed two projects to the IHO-Singapore Tech Lab:
 - automated conversion of S-57 to S-101 ENC's
 - possible establishment of a technical infrastructure within the IHO GIS Infrastructure to include a S-131 database for harbour's information registration

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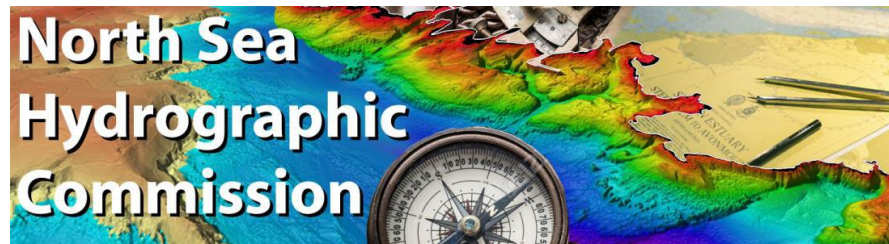


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ACTIONS REQUESTED FROM NSHC35

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- Note the Report
- Take any other action as it may consider appropriate.



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