Annex B to the Report of the IHO HSSC to the Council 6 –
Draft Revision of Annex 2 to the
Roadmap for the S-100 Implementation Decade (2020-2030)

Roadmap for the S-100 Implementation Decade (2020 – 2030), Annex 2

S-100 Timelines

Version 2.0 Dated: 12 July, 2022

S-100 Implementation Priorities

For the first edition of S-98, which will handle interoperability between different layers in the future S-100 ECDIS, priority will be given to layers used in route monitoring mode. In the next step layers used in route planning mode will be included. In order to achieve usage of S-100 products in future S-100 ECDIS it is critical to also develop the supporting framework in accordance with the S-100 timeline and even in some cases to speed up this development. The critical S-100 framework consist of the IHO Geospatial Information (GI) Registry, the S-100 Universal Hydrographic Data Model, the Interoperability Specification (S-98), the Catalogue of Nautical Products (S-128) and the Test Data Set for S-100 and ECDIS Type Approval (S-164). It should be noted that priorities given to the products used in route monitoring mode and the critical S-100 framework does not prevent route planning products to be developed in parallel to the once in the first step. In addition to the route monitoring products, also S-122, S-127 and S-131 should be operational 2026.

Table A – IHO list of S-100 products with special focus	
First step – Route monitoring mode	
S-101	Electronic Navigational Chart (ENC)
S-102	Bathymetric Surface
S-104	Water Level Information for Surface Navigation
S-111	Surface Currents
S-124	Navigational Warnings
S-129	Under Keel Clearance Management
Critical Framework	
	IHO Geospatial Information Registry
S-98	Interoperability Specification
S-100	Universal Hydrographic Data Model
S-128	Catalogue of Nautical Products
S-164	Test Data Set for S-100 and ECDIS Type Approval
Second step – Route planning mode	
S-122	Marine Protected Areas
S-123	Marine Radio Services
S-125	Marine Aids to Navigational (AtoN)
S-126	Marine Physical Environment
S-127	Marine Traffic Management
S-131	Marine Harbour Infrastructure

Figure 1 The S-100 Implementation Priorities. The first step is product specifications for Route Monitoring which must be mode supported by the Critical S-100 Framework. Product specifications for Route Planning will be developed as the second step.
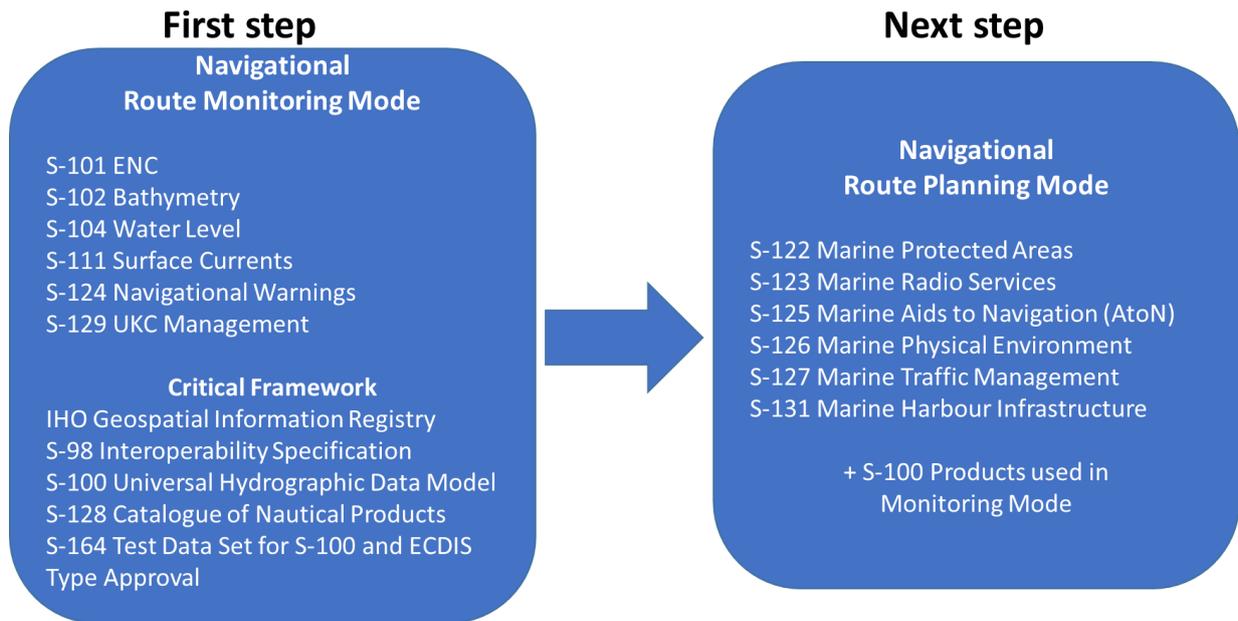
First step

**Navigational
Route Monitoring Mode**

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

Critical Framework
IHO Geospatial Information Registry
S-98 Interoperability Specification
S-100 Universal Hydrographic Data Model
S-128 Catalogue of Nautical Products
S-164 Test Data Set for S-100 and ECDIS
Type Approval

Next step

**Navigational
Route Planning Mode**

S-122 Marine Protected Areas
S-123 Marine Radio Services
S-125 Marine Aids to Navigation (AtoN)
S-126 Marine Physical Environment
S-127 Marine Traffic Management
S-131 Marine Harbour Infrastructure

+ S-100 Products used in
Monitoring Mode

Figure 2 The IHO Navigational Package to be handled by the Interoperability Specification S-98. Additional layers may be added in the future.

S-100 Timeline for the prioritized IHO Product Specifications

The S-100 timeline is maintained by the IHO Secretariat as a version controlled Gantt Diagram and is updated and reported annually to the IHO Council.
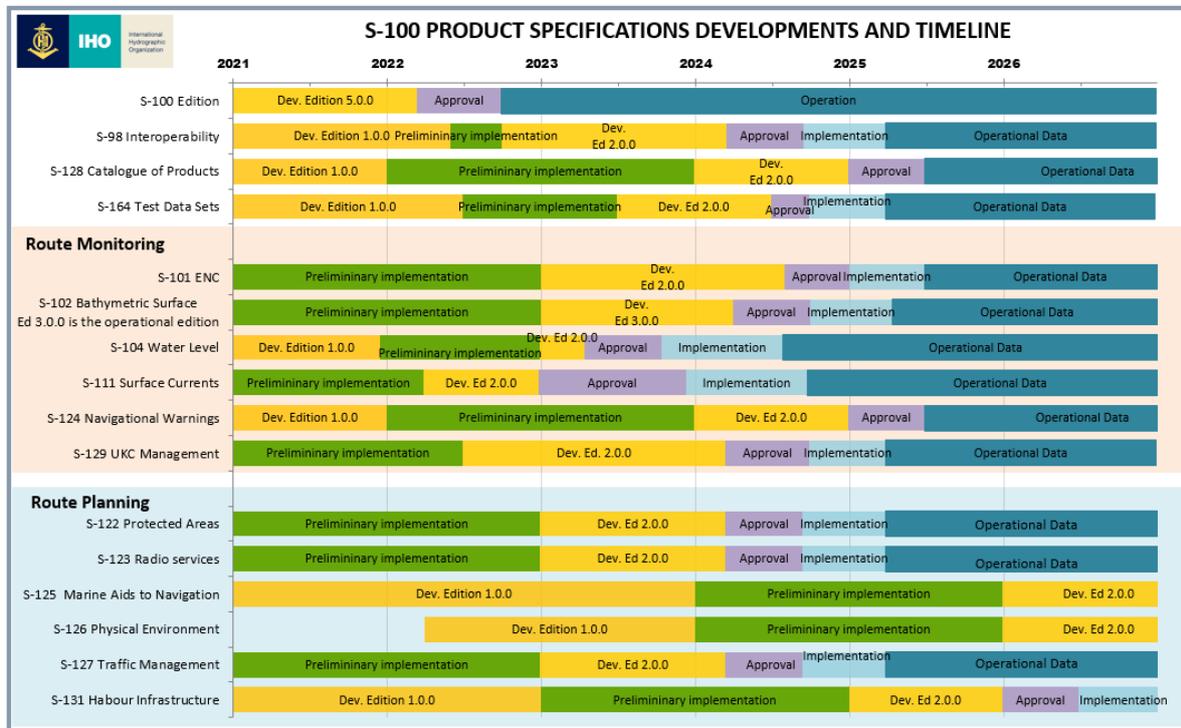

Figure 3 This S-100 timeline is updated: 12 July, 2022.

Synoptic Diagram on Options for HOs for Parallel Production of S-101 and S-57 ENCs

It is concluded that the preferred option for HOs would be to produce their ENCs from a database driven production system since it is expected that production systems software companies will include support for parallel ENC production (S-57 and S-101) when using a database driven system. However, HSSC has prepared a synoptic diagram to show other possible options for HOs in regards to parallel production.
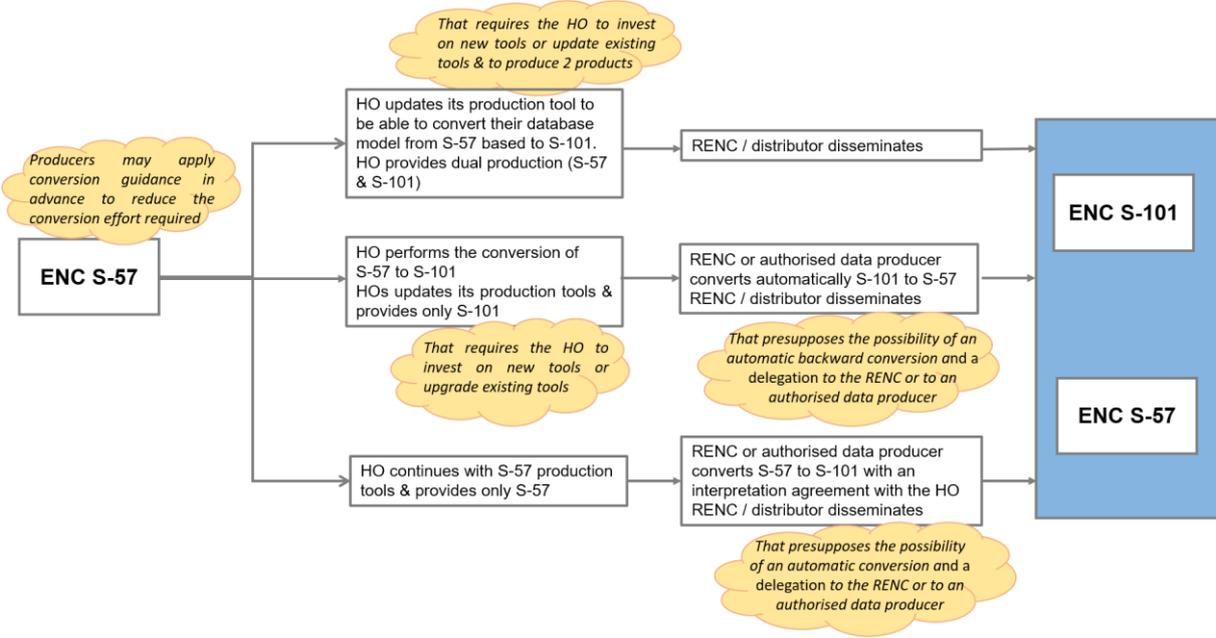

Figure 4 Potential options for HOs for future production of S-101 ENCs in conjunction with S-57 maintenance/production