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

**S-100 Timelines**

**Version 3.0 Dated: 19 October 2023**

## 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 Phase 1/ Route monitoring mode. In Phase 2 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.

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| Table A – IHO list of S-100 products with special focus |
| Phase 1 / Route monitoring |
| **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 |
| Phase 2 / Route planning |
| **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 |
| **S-411 (WMO)** | Ice Information |
| **S-412 (WMO)** | Weather and Wave Hazards |

Figure 1 The S-100 Implementation Priorities. Phase 1 is product specifications for Route Monitoring which must be supported by the Critical S-100 Framework. Product specifications for Route Planning will be developed as the phase 2.

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Figure 2 The IHO Navigational Package, for S-100 ECDIS, to be handled by the Interoperability Specification S-98. Additional layers and Phases 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: 9 July, 2023.

## 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 (Doc. C7-04.4B Rev2 refers)