



# The national and regional coordination of the S-100 implementation

by Finnish Hydrographic Office

## 1 Introduction

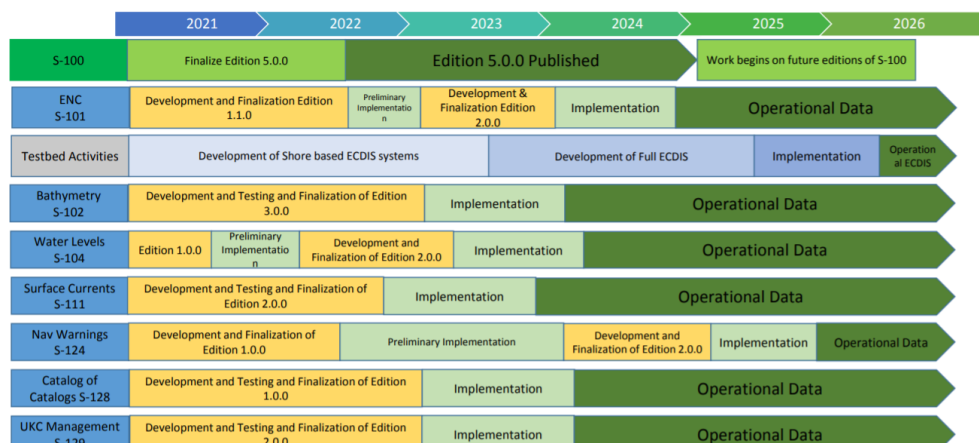
The digitalization of the maritime sector and the automation of the shipping are global trends that have impacts to work of IHO and hydrographic offices. The response to the global warming and actions for mitigating the climate change also request countries to review their strategies and draw up new actions. Obviously, some of these actions will affect the work of maritime operators including hydrographic offices.

These trends and respective measures are already visible in government and ministry level strategies and operative objectives in Finland. These high level expressions of will guide governmental agencies like the Finnish Transport and Communications Agency, Traficom (and the Finnish HO as a part of the agency) to actively work towards the set goals and targets.

The IMO eNavigation Strategy point out the importance of standardization when digitalizing datasets and services for existing and future maritime transport. More precisely, the resolution of the Maritime Safety Committee (IMO/MSC.467(101)) direct IMO Member States agencies, private enterprises and other maritime service providers to use IHO S-100 based standards when providing data and services.

The S-100 Universal Hydrographic Data Model has been available for over 10 years for organizations responsible for the standardization of data transfer, products or services for maritime navigation and shipping. Based on this S-100 framework, have IHO, IALA, WMO and IEHG already published several data transfer and product standards. More product standards are under development and the list of international organizations utilizing the S-100 framework is growing.

The IHO Assembly 2 approved the Roadmap for the S-100 Implementation Decade including schedules for the first priority product standards. Beside the editions of the product standards, the Roadmap also introduce schedules for the implementation and start time for production (including dissemination?) for each of the data product.





To date, data sets based on the IHO standards have been mostly provided by the organizations responsible for producing ENC's. It is noticeable that there is not enough knowledge among other maritime data providers about the S-100 standards or how the standards should be applied. This is the case at least in Finland.

## **2 Coordination of the S-100 implementation in Finland**

The Traficom and the Finnish HO are planning to take actions for raising awareness and improving knowledge about S-100 standards among data producers and service producers in Finland.

As a first step

- FHO will share general information to stakeholders about S-100 framework and available S-100 based data transfer and product standards.
- In order to promote usage of S-100 standards FHO will contact Finnish agencies and partners responsible for producing data sets included in the current S-100 implementation roadmap. While Traficom/FHO will produce and provide S-101 ENC, S-102 Bathymetry and S-124 Navigational Warnings data sets there are other governmental institutions or government owned companies who are managing i.e. Water Level (S-104) and Surface Currents (S-111) data. FHO will also contact partners responsible for UKC Management services in case there is need to establish such a services in Finnish waters.

As a next step (a need for these action will considered in due course)

- FHO will take a role in national coordination and harmonization of the IHO S-100 based data production and distribution for shipping.
- More specific, FHO will gather and maintain overall information about existing S-100 data sets and services, new products and future services in Finland. This action requires a close cooperation with all data producers and service providers.
- Traficom/FHO will publish and maintain national guidelines and recommendations about S-100 implementation as seen appropriate.

Objectives for the coordination

- Agencies and companies, having role in producing or distributing S-100 data sets for shipping and other maritime shareholders, disseminate data and provide services according the S-100 standards.
- S-100 data producers and service operators have adequate information about S-100 Standard Frame, published data transfer and product standards.
- S-100 related guidelines and recommendations published by IHO, IALA, IMO etc. are well adopted and widely applied among stakeholders.
- S-100 data production and services are implemented in a high-quality, efficient and economical manner, meeting the customer needs.



### **3 Need for a regional coordination for the S-100 implementation ?**

Over many decades, have BSHC successfully invested in coordination and harmonization of the INT Charts and the ENC's over the Baltic Sea region. The marine safety information, the common hydrographic survey plan and the common vertical chart datum have also been subjects of close cooperation under the umbrella of the commission.

Although the responsibility of the S-100 implementation lies clearly with the Member States, it would be beneficial to all, including hydrographic offices, if the regional perspective could be available when planning production of new navigational products and arranging distribution of such data sets.

We can also assume commercial vessels and other ships entering and navigating the Baltic Sea waters welcome the situation where coverage of the S-100 derived navigational products would evolve in logical steps and the corresponding services would appear consistent and easily accessible.

Compared to the existing workload of the BSHC's working groups, the comprehensive regional coordination of the S-100 implementation most probably request a lot of additional work and resources. Therefore, a step by step approach may be necessary to apply.

In the first phase, the task could be to coordinate the implementation of the S-101 ENC and S-124 Navigational Warnings. The tasks could be assigned to the existing working groups namely Baltic Sea International Charting Coordination Working Group (BSICCWG) ja Baltic Sea Maritime Safety Information Working Group (BSMSIWG).

Later, in the following years, the coordination may be expanded to cover S-102 Bathymetry, S-128 Catalog of Catalogs and other S-100 products HO's are responsible to provide.

BSHC can also adjust the workload by defining the scope and level of the tasks. The basic level of coordination may just consist an information chance and Member States reports about the topic whereas comprehensive coordination aims to common production plans and synchronized implementation. The optimal level probably lies somewhere between these options.

### **4 Actions for the BSHC26<sup>th</sup> meeting**

The BSHC 26<sup>th</sup> meeting is requested to

- Note the report
- Note the information about the National level S-100 coordination in Finland
- Consider the need for the S-100 implementation coordination and/or harmonization by BSHC
- Take any other actions as seen appropriate