

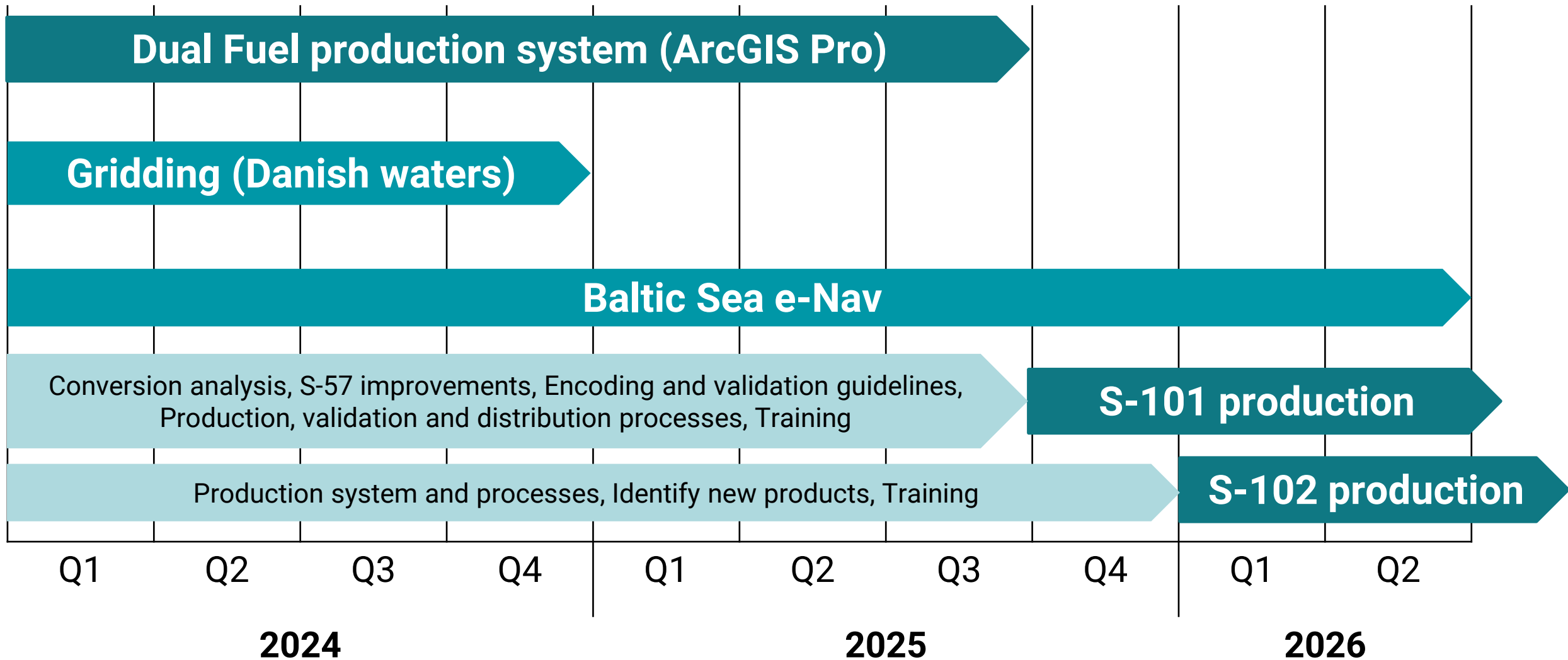


NHC-67 – C.1A:

S-100 implementation: Denmark



S-100 timeline



Challenges

(Copied from last year)

- A lack of resources as we need to implement the new standards in a relatively short time, while supporting current production of both S-57 and paper charts. This is a challenge both in terms of production systems, resources and competences.
- The operational version of the S-101 (2.0.0) standard isn't ready until 2025, which gives a relatively short time to finalize the production system and production processes. As long as product specifications and interoperability between products has not been finalized there is an element of 'moving target' regarding design and implementation of production systems and processes.
- The complexity of the implementation task and the extensive need to coordinate with other agencies adds new challenges to the work of the Hydrographic Office.



National coordination

- Danish authorities holding maritime data (S-100)



Danish S-100 Coordination

- Start small – only the four authorities with phase 1 data
- ‘Kick-off’ meeting Dec 2023
- Terms of references in place
- Virtual meetings every 2 months
- Physical meetings twice a year



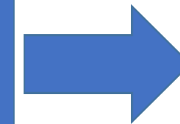
Phase 1 / Route Monitoring

Phase 1 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



Phase 2 / Route Planning

Phase 2 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-411 Ice Information (WMO)
S-412 Weather and Wave Hazards (WMO)

+ S-100 Products used in
Monitoring Mode

S-128

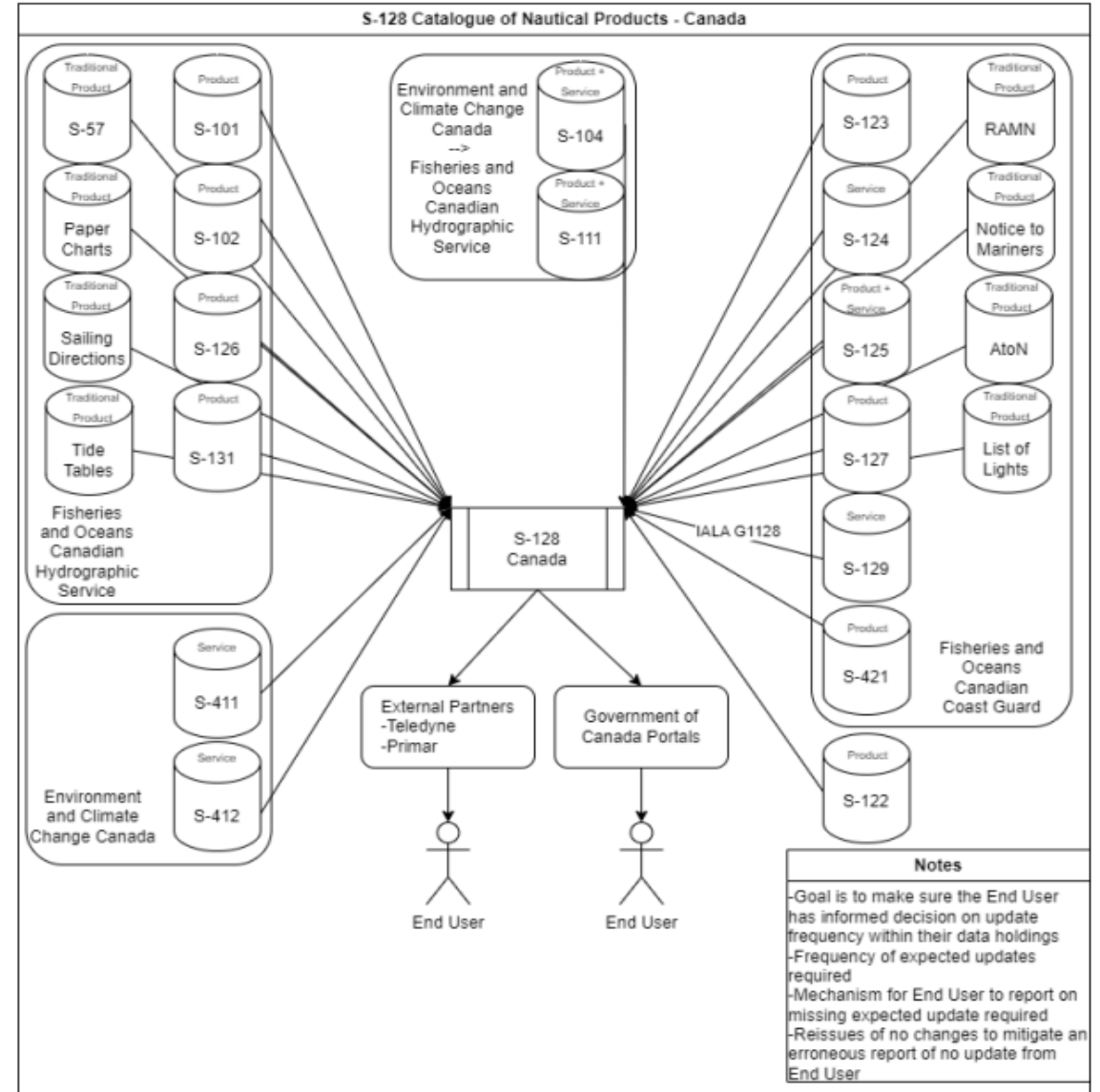
- DGA is considering a national S-128 service – as presented by Canada at WENDWG14
- Extensive national coordination

From Canada' paper:

The S-128 Catalogue is the key reference document for clients and those accessing a member state's data to ensure they have the most up-to-date suite of available products. Adopting the proposed approach will provide the most streamlined experience for users and reduce the risk of errors in version control. The unified approach for all S-100 services put forth here should be considered for global standardization

[ENC Rescheing experience \(iho.int\)](http://iho.int)

Annex A – Diagram showing Canada's vision for an Integrated National S-128 catalogue



NHC 67 is invited to note the briefing.

Thank you.

