WT3: S-100

Shared waters – Same standards. Baltic Sea Partnership for Future Navigation

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https://interreg-baltic.eu/project/baltic-sea-e-nav/

What is Baltic Sea e-nav?

- An Interreg Baltic Sea Region-funded project that runs November 2023-November 2026

- Overall goal is to produce, test and implement some of the first S-100 products for navigation in the Baltic Sea

- Coordinator: Swedish Maritime Administration

- Budget: BS e-nav budget: 4.900.000 EUR. Co-financing: 3.920.000 EUR
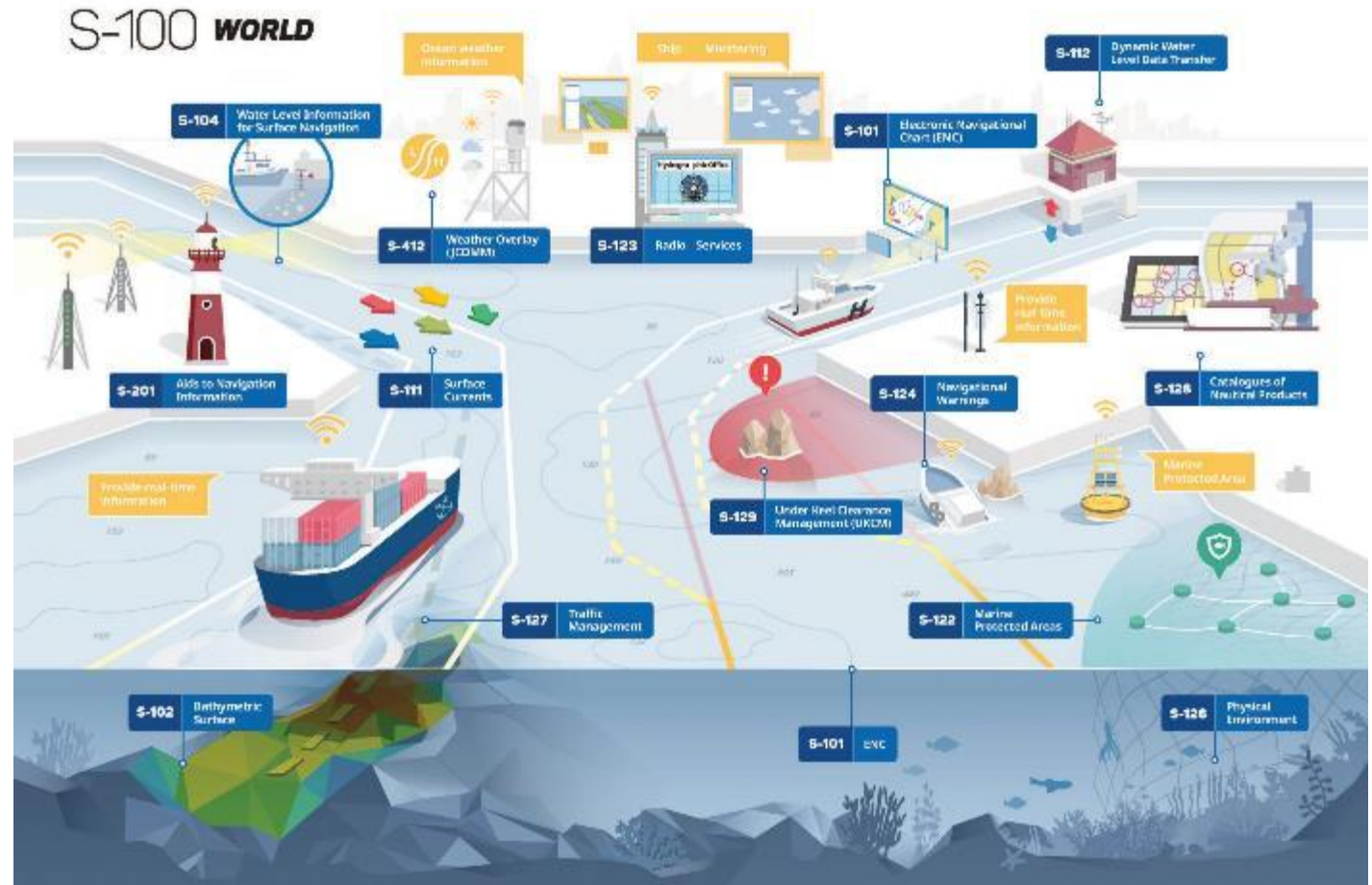
Partnership

A large part of the benefit of the project is that it is the **hydrographic offices** themselves that are the **main target group** and that we have created this project to **jointly develop our production** in accordance with the IHO's implementation scheme, for the **benefit of shipping in the Baltic Sea.**

SWEDISH MARITIME ADMINISTRATION

TRAFICOM
Transport- och kommunikationsverket

FURUNO FINLAND

FINNISH METEOROLOGICAL INSTITUTE

RI.SE

Danish Geodata Agency

HOPN
Hydrographic Office of the Polish Navy

TRANSPORDIAMET

LTSA
Lietuvos transporto saugos administracija

ic-enc

samk

BSH
BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

LATVIJAS JŪRAS ADMINISTRĀCIJA
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BLUE ECONOMY
Baltic Sea e-Nav

Project Outputs

Output 1 Available Baltic Sea E-Nav Base package

- **S-101 next-generation electronic navigational charts** with full coverage of the major shipping routes in the Baltic Sea

- **S-102 seafloor information** products will cover most relevant shipping routes, fairways and harbor approaches, where hydrographic survey data of sufficient quality is available.

- **S-104 water level and S-111 sea surface currents**. The Finnish Meteorological Institute (FMI) will establish overview services for mostly the Finnish areas of the Baltic Sea.

Output 2 Guidelines adopted regionally under Baltic Sea Hydrographic Commission (BSHC)

- The guidelines will regulate how these products and services shall be **harmonised across borders** between different nation's respective responsibility.
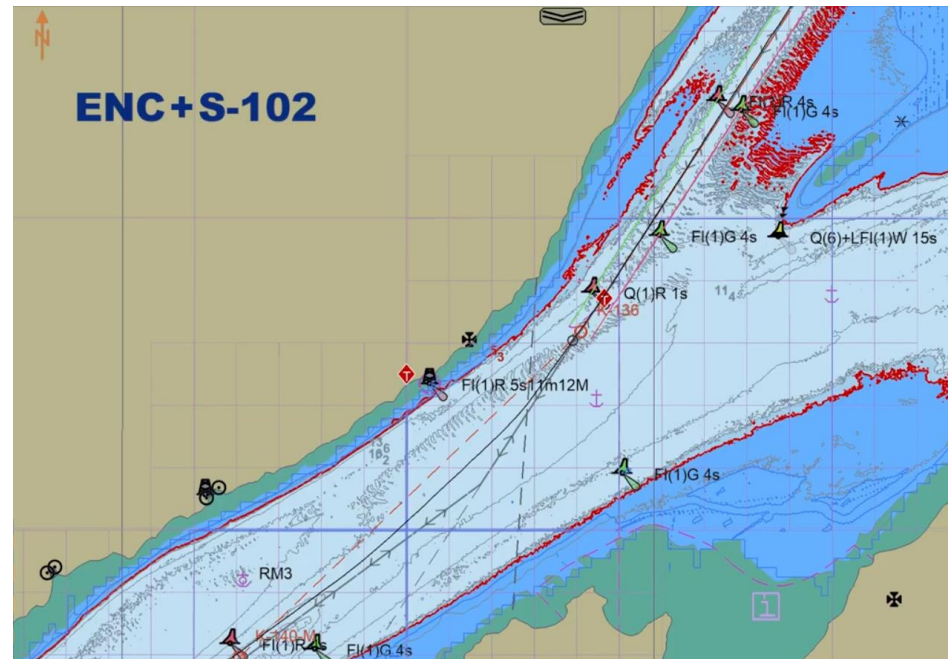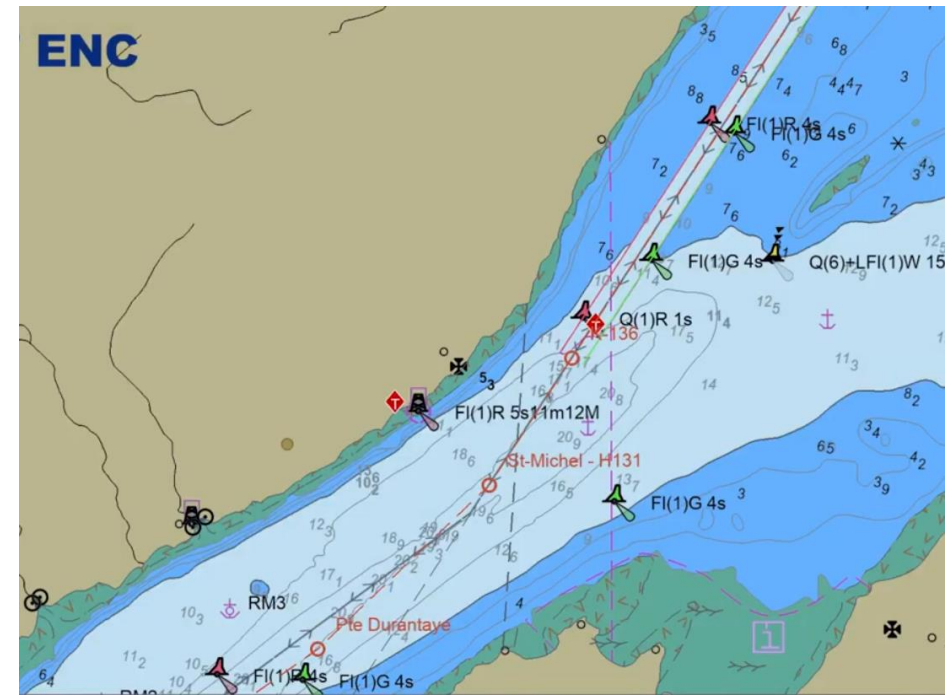
Benefits

From this

…but at sea!

To this

Implementation of S-100 means great possibilities for navigation:

- Individual sea charts – with dynamic depth curves

- Better decision-making tools – by information layering

- More efficient steaming – better data = shorter routes

Project Structure/timeline

WP1: Preparation

WP2: Piloting

WP3: Transferring

Nov 2023 – Nov 2025: Preparation of solutions

Develop production capabilities for S-101, S-102 and to some extent S-104 and S-111
Preparations for testing and evaluation. Developing navigation software. Define scenarios

May 2024 – May 2026: Piloting and evaluating solutions

Test, evaluate and refine S-1xx products
Establish harmonization rules under the BSHC umbrella

Nov 2024 – Nov 2026: Transferring Solutions

Commercial rollout for S-101 and S-102 in the Baltic Sea. S-104/111 in parts of FI.

MaDaMe – Maritime Data Methods for Safe Shipping

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Project data

- Duration: 1.11.2023-31.10.2026
- Budget: 3,4 M€ (80% ERDF funding)
- Coordinator: Turku University of Applied Sciences

Project goal

The MaDaMe project develops and pilots:
- **Digital Aids to Navigation (S-125)** information service incl. device status information
- **Digital Navigational Warnings (S-124)** information service
- **Digital technical VTS (S-212)** service

These services utilize technologies such as:
- **Maritime Connectivity Platform (MCP)**
- **VHF Data Exchange System (VDES)**

These technologies are under international standardization and the **MaDaMe project will contribute to the standardization in IALA and IHO.**

Consortium

Partners

Associate partners
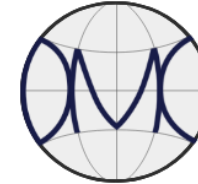
WP1: Preparing solutions

GoA1.1 - Service development and deployment

Define requirements and operational procedures for the services (navigational warnings, Aids to Navigation information and VTS information)

GoA1.2 - Cybersecure Service Delivery Platform

Develop Maritime Connectivity Platform (MCP) for piloting the services

GoA1.3 - Communication System

Analyze the connectivity needs for the piloted services

Develop prototype VDES system for the pilots

	Period: 1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.1: Service development and deployment						
D.1.1: Digital Navigational Warnings, digital Aids to Navigation (AtoN) and digital VTS servi				D		
A.1.2: Cybersecure Service Delivery Platform						
D.1.2: Messaging platform for services				D		
A.1.3: Communication System						
D.1.3: MaDaMe Communication System		D				

WP2: Piloting solutions

GoA2.1 - Digital Navigational Warnings

Pilot the delivery of one S-124 service

GoA2.2 - Digital Navigational Service

Testing the Digital AtoN services in the testbed area of the Baltic Sea utilizing the VDES and MCP. The applications, focused on the S-125 framework, will be developed for a selected group of end-users (testers).

GoA2.3 - VTS service

Pilot and test electronic VTS services for ships and other maritime operators that can be integrated into the operational VTS system

WP.2: WP2 Piloting and evaluating solutions					
A.2.1: Digital Navigational Warnings					
O.2.1: Digital Navigational Warnings Service				O	
A.2.2: Digital Aids to Navigation (AtoN)					
O.2.2: Digital AtoN Service					O
A.2.3: Digital Vessel Traffic System					
O.2.3: Digital VTS Traffic Management Service					O

WP3: Transfer solutions

GoA 3.1 - Standardization impact

IALA, IHO, MCC, IMO, Helcom

GoA 3.2 - Dissemination activities

BIMCO etc.

Other projects: ORMOBASS, Baltic eNav, etc.

Online training material explaining the developed services for each end-user group

GoA 3.3 - Future directions

Service deployment plan focusing on services prepared in WP1 and piloted in WP2.

Guidelines for future maintenance of developed services. Based on maturity analysis, life cycles of services are defined, reflecting the project outcomes and being aware of other future digitalization concepts and changing legislation. Attention is also given to cybersecurity as vulnerabilities are likely to found after the project duration.

WP.3: WP3 Transferring solutions						
A.3.1: Standardization impact						
D.3.1: Impact on standardisation						D
A.3.2: Dissemination activities						
D.3.2: Report on dissemination activities						D
A.3.3: Future directions						
D.3.3: Roadmap as durability plan						D

Thank you for listening

Questions? Get in touch!

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