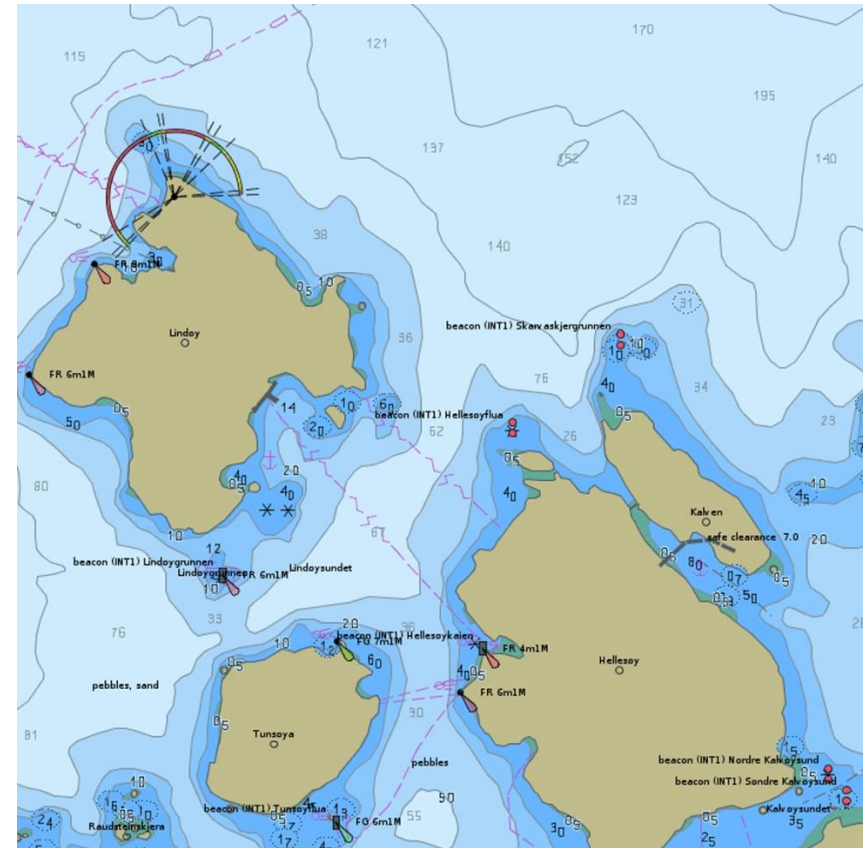


PRIMAR RENC

Hans Chr. Lauritzen, Director PRIMAR

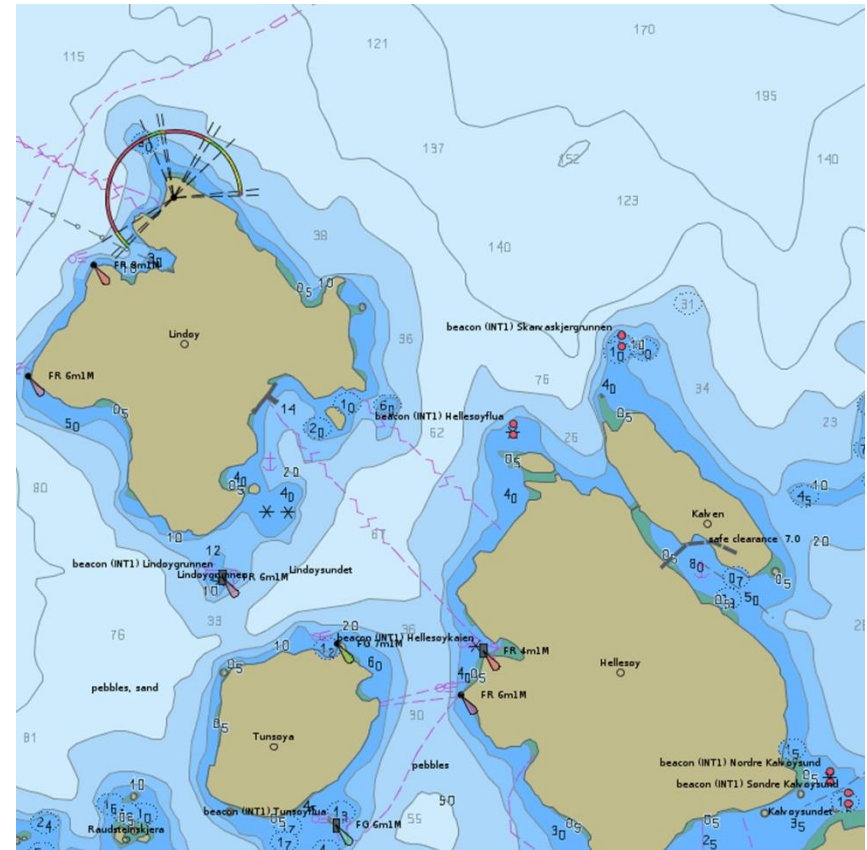
What is PRIMAR?

- A Regional ENC Coordinating Centre (RENC)
- Established in 1999
- Operated on a non-profit basis by the **Norwegian Hydrographic Service** in close cooperation with **Electronic Chart Centre (ECC)**.
- Located in Stavanger, Norway



What does PRIMAR?

- Provides a consistent and reliable electronic navigational chart (ENC) service world-wide.
- Fully compliant with IHO guidelines, principles and standards.
- PRIMAR RENC:
 - 17 members
 - ENCs from more than 70 different nations available in the PRIMAR ENC service.



PRIMAR RENC value chain

> 60 different official ENC providers

**PRIMAR
RENC
MEMBERS**

**PRIMAR
ENC
Database**

**> 17 000
ENCs**

50 Commercial Distributors

11 Governmental Distributors

10 Navy Suppliers

**Commercial
users**

**Governmental
users**

**Navy
users**

>33 000 registered end-users

**PRIMAR
LICENSING
PARTNERS
(Others)**

**ALL
IC-ENC
RENC
DATA**

Albania
Croatia
Estonia
Finland
France
Georgia
Iran
Latvia
Lithuania
Mozambique
Norway
Poland
Sweden
Russia
Ukraine
Vietnam (VHO)
Vietnam (VMS-N)

Canada
China
India
Indonesia
EAHC
MSS
Japan
Korea
PRD ENC
Singapore
NTOU (Taiwan)

PRIMAR Training Portal



[Home](#) [Courses](#) [Contact Us](#) [About us](#) [Sign in](#)

<https://primar.learnworlds.com>



PRIMAR®

ACHIEVE YOUR GOALS

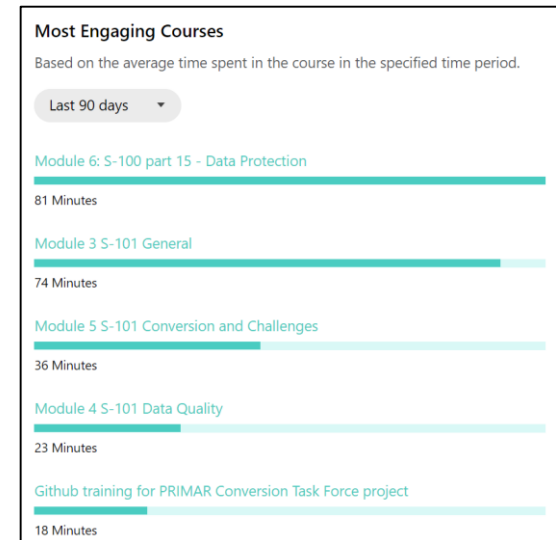
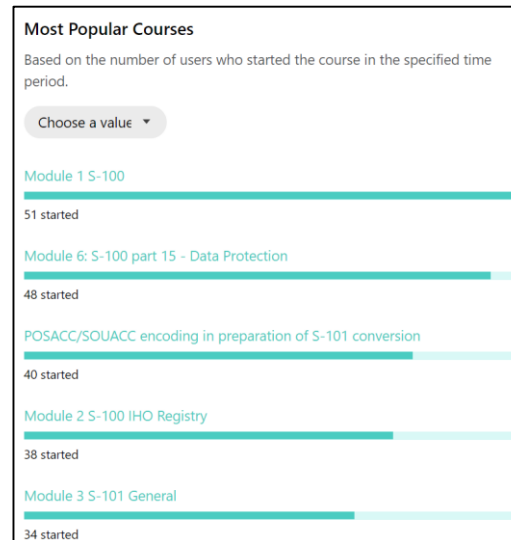
PRIMAR Training Portal

Join us today and check some of the courses below

FREEDOM TO CHOOSE

Status


- Launch of PRIMAR Learnworlds training portal June 2021
- 6 modules S-100/S-101:
 - S-100: Data Model, IHO Registry and Part 15 Data Protection.
 - S-101 General, Data Quality, Conversion Challenges.
- 5 modules S-100/S-102:
 - S-100: Part 8 Imagery and Gridded Data, Part 2 HDF5 Data Model.
 - S-102 Product Specification, Data Encoding Format, Portrayal.
- High usage rate
 - 210 students*
 - 191 certificates



* PRIMAR MS = 210 students/Others = 104 students

2021

Module 1:6 S-100 & S-101
ENC Training Course PRIMAR[®]
Module 1: S-100


Svein Skjaeveland

Module 1 S-100

S-100 General Introduction and Data Model Information

Price
\$255

Learners
204

Module 2:6 S-100 & S-101
ENC Training Course PRIMAR[®]
**Module 2: IHO S-100 Geospatial
Information Registry**


Svein Skjaeveland


Module 2 S-100 IHO Registry

An introduction to the IHO Geospatial Information Registry

Price
\$55

Learners
204

Module 3:6 S-100 & S-101
ENC Training Course PRIMAR[®]
Module 3: S-101 General


Svein Skjaeveland


Module 3 S-101 General

A detailed introduction to the future ENC framework, the S-101
Electronic Navigational Chart Product Specification.

Price
\$255

Learners
204

Module 4:6 S-100 & S-101
ENC Training Course PRIMAR[®]
Module 4: S-101 Data Quality


Svein Skjaeveland


Module 4 S-101 Data Quality

A detailed introduction to the S-101 Data Quality aspects,
focusing on Quality of Bathymetric Data.

Price
\$255

Learners
204

Module 5:6 S-100 & S-101
ENC Training Course PRIMAR[®]
**Module 5: S-101 Conversion
and Challenges**


Svein Skjaeveland


Module 5 S-101 Conversion and Challenges

S-57 to S-101 Conversion Topics

Price
\$255

Learners
204

Module 6:6 S-100 & S-101
ENC Training Course PRIMAR[®]
**Module 6: S-100 part 15 -
Data Protection**


Robert Sandvik

Module 6: S-100 part 15 - Data Protection


Understand IHO Data Protection and how it can be used to
secure your products and services

Price
\$255

Learners
205

2022

Module 1:5




Svein Skjaeveland

S-102 Module 1: S-100 Part 8 Imagery and Gridded Data

An introduction to S-100 Part 8 on Imagery and Gridded data.

Price **\$255** Learners **210**

Module 2:5




Svein Skjaeveland

S-102 Module 2: S-100 Part 10c HDF5 Data Model and File Format

An introduction to S-100 Part 10c on the HDF5 Data Model and File Format.

Price **\$255** Learners **210**

Module 3:5



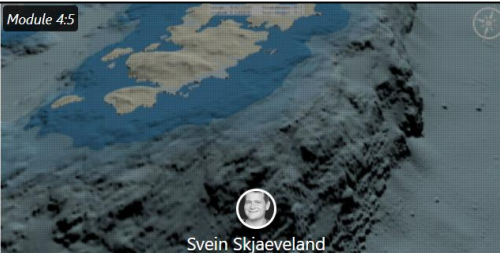
Svein Skjaeveland

S-102 Module 3: S-102 Part I Product Specification Introduction

An introduction to the S-102 Bathymetric Surface Product Specification.

Price **\$255** Learners **210**

Module 4:5




Svein Skjaeveland

S-102 Module 4: S-102 Part II Data Encoding Format and Metadata

The S-102 implementation of the HDF5 Format and Metadata.

Price **\$255** Learners **210**

Module 5:5



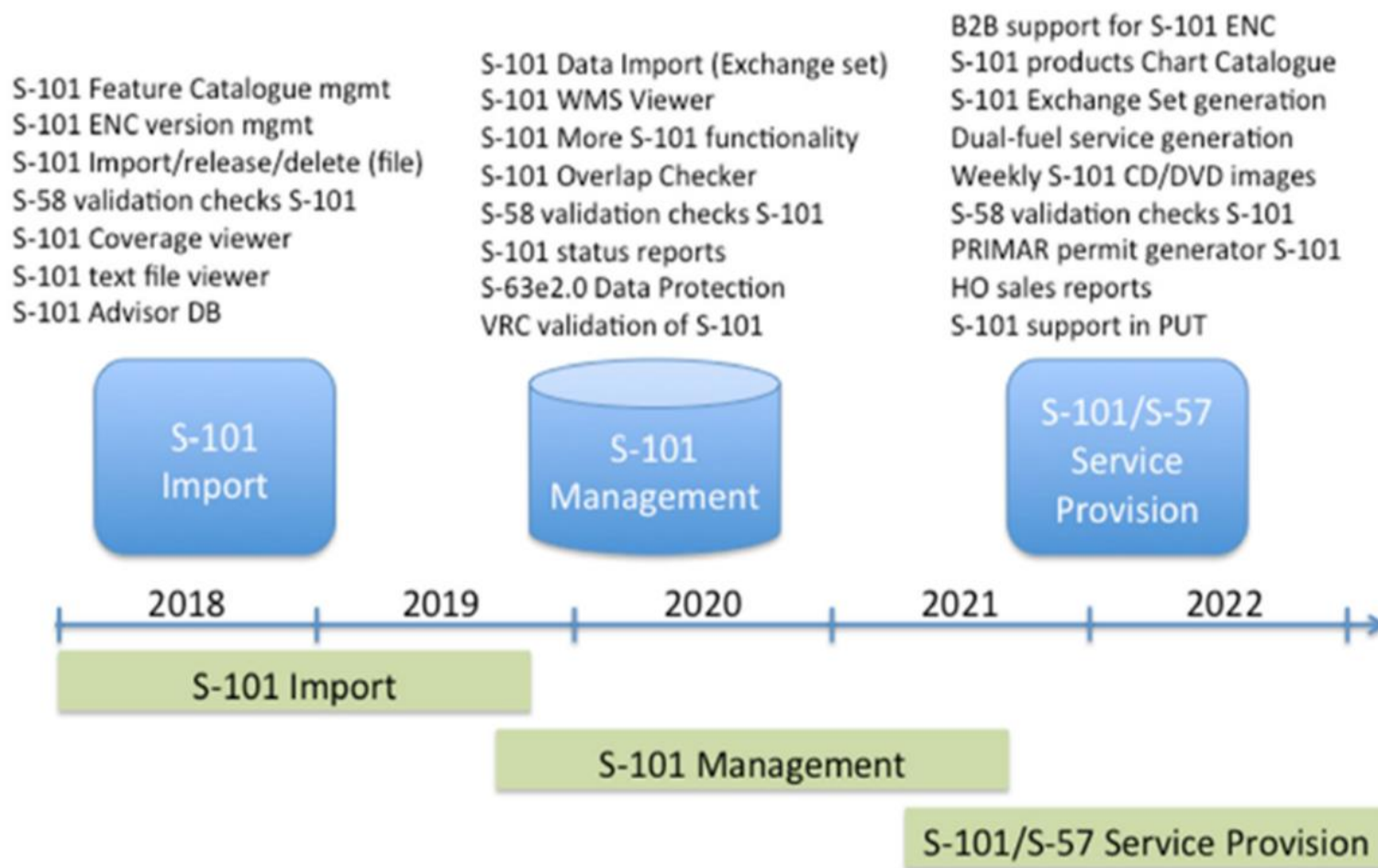
Svein Skjaeveland

S-102 Module 5: S-102 Part III Portrayal

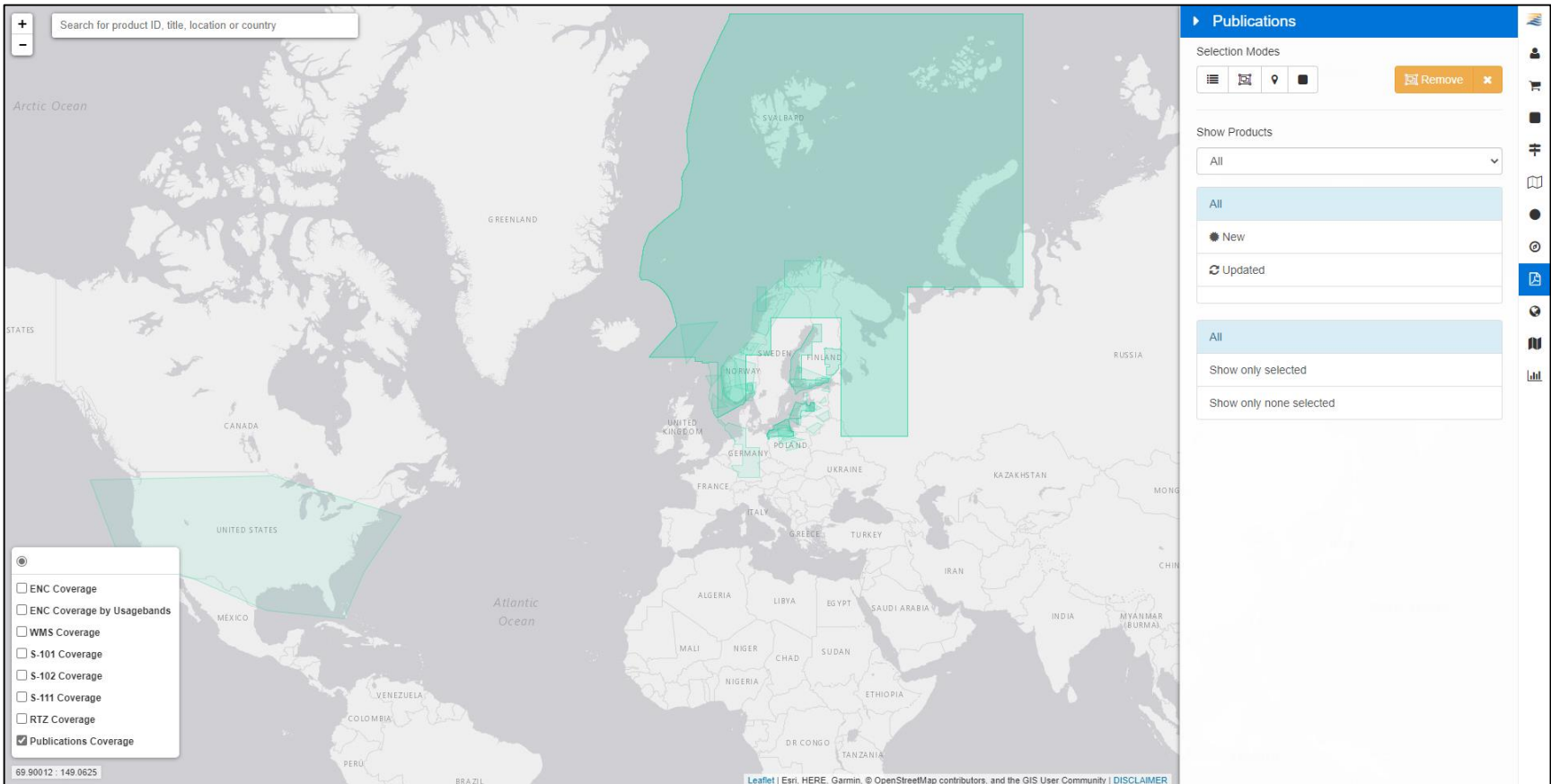
An introduction to the S-102 Bathymetric Surface Product Specification on Portrayal.

Price **\$255** Learners **210**

PRIMAR S-101 Project Status



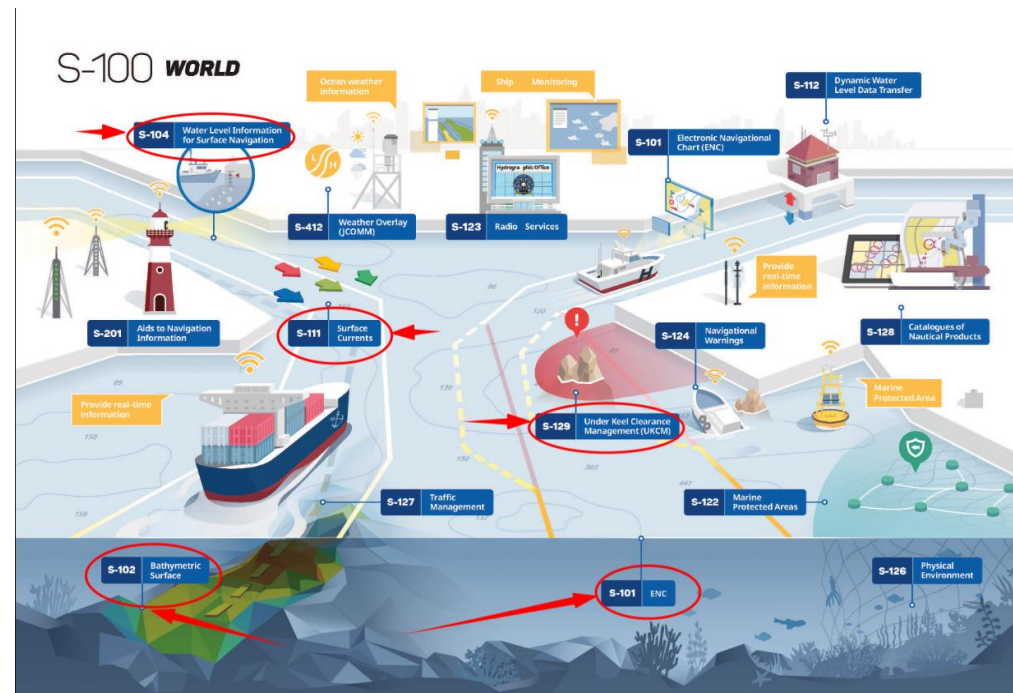
PRIMAR Chart Catalogue-Publications



The screenshot displays the PRIMAR Chart Catalogue-Publications web application. The main map area shows a world map with several regions highlighted in green, indicating chart coverage. A search bar at the top left allows users to search for product ID, title, location, or country. A legend in the bottom left corner lists various coverage types: ENC Coverage, ENC Coverage by Usagebands, WMS Coverage, S-101 Coverage, S-102 Coverage, S-111 Coverage, RTZ Coverage, and Publications Coverage (which is checked). The right sidebar, titled 'Publications', contains a 'Selection Modes' section with icons for list, map, location, and a 'Remove' button. Below this is a 'Show Products' section with a dropdown menu set to 'All'. Further down, there are buttons for 'All', 'New', and 'Updated'. At the bottom of the sidebar, there are buttons for 'Show only selected' and 'Show only none selected'. The map at the bottom shows a world map with various countries labeled, including Greenland, Canada, United States, Mexico, Venezuela, Colombia, Peru, Brazil, United Kingdom, France, Germany, Poland, Norway, Sweden, Finland, Denmark, Italy, Greece, Turkey, Ukraine, Kazakhstan, Mongolia, China, India, Myanmar, Thailand, Vietnam, Laos, Cambodia, and Australia. The map is powered by Leaflet, Esri, HERE, Garmin, OpenStreetMap contributors, and the GIS User Community.

S-100 World

- S-101 (ENC)
- S-102 (Bathymetri)
- S-104 (Water Level information)
- S-111 (Surface Currents)
- S-129 (Under Keel Clearance)



PRIMAR S-100 Service

- The S-100 Service was launched July 2020
- Contains more that 2500 S-102 / S-111 from CHS
- Encrypted by S-100 part 15



PRIMAR Conversion Task Force Project



- Task force to evaluate options and tools and provide guidance to Member States and IHO Working Groups
- Test conversion and validation for:
 - S-57 to S-101
 - S-101 to S-57
- Establish data conversion and validation guidelines and establish forum for exchange of experiences
- Identify resource requirements and data conversion/dual-fuel production strategies
- Improved commercial software and functionality for data conversion and validation

PRIMAR 2022 focus and achievements

- Launch of the Nautical Publication Service
- Further development of S-100 Service.
 - S-104
 - S-124
- Expansion of the PRIMAR Training Portal
- S-101 Conversion Task Force project
- SECOM E-Navigation project
- Upgrade of Chart Catalogue
- Finish the S-101 service development

Thank you for your attention
Questions?

www.primar.org