

PRIMAR 2021 – WENDWG12

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PRIMAR's Vision

IN ORDER TO ENHANCE SAFETY AT SEA AND PROTECT THE MARITIME ENVIRONMENT, PRIMAR'S VISION IS TO BE THE MOST EFFICIENT MODEL FOR THE PROVISION OF ENC SERVICES AND MARITIME GEOSPATIAL DATA WORLDWIDE.

Targets for 2021

- Continuously provide the world's most efficient ENC quality control and validation services
- To increase knowledge and conduct training in ENC validation and quality control for member nations
- To conduct S-100 training / Capacity Building

Targets for 2021

- To increase ENC sales, maintain cost control and financial sustainability
- To further develop and improve the PRIMAR technology and services
- Further development of the S-100 Service
- Development of the publication service.
- Launch of upgraded PRIMAR web page

ENC QC AND VALIDATION SERVICES

The PRIMAR ENC validation statistics for 2021 are as follows:



New ENC	New Editions	Reissue	Cancel cell	Updates
1 169	7351	1085	429	24381



The below table shows the development of the PRIMAR ENC database during 2021:

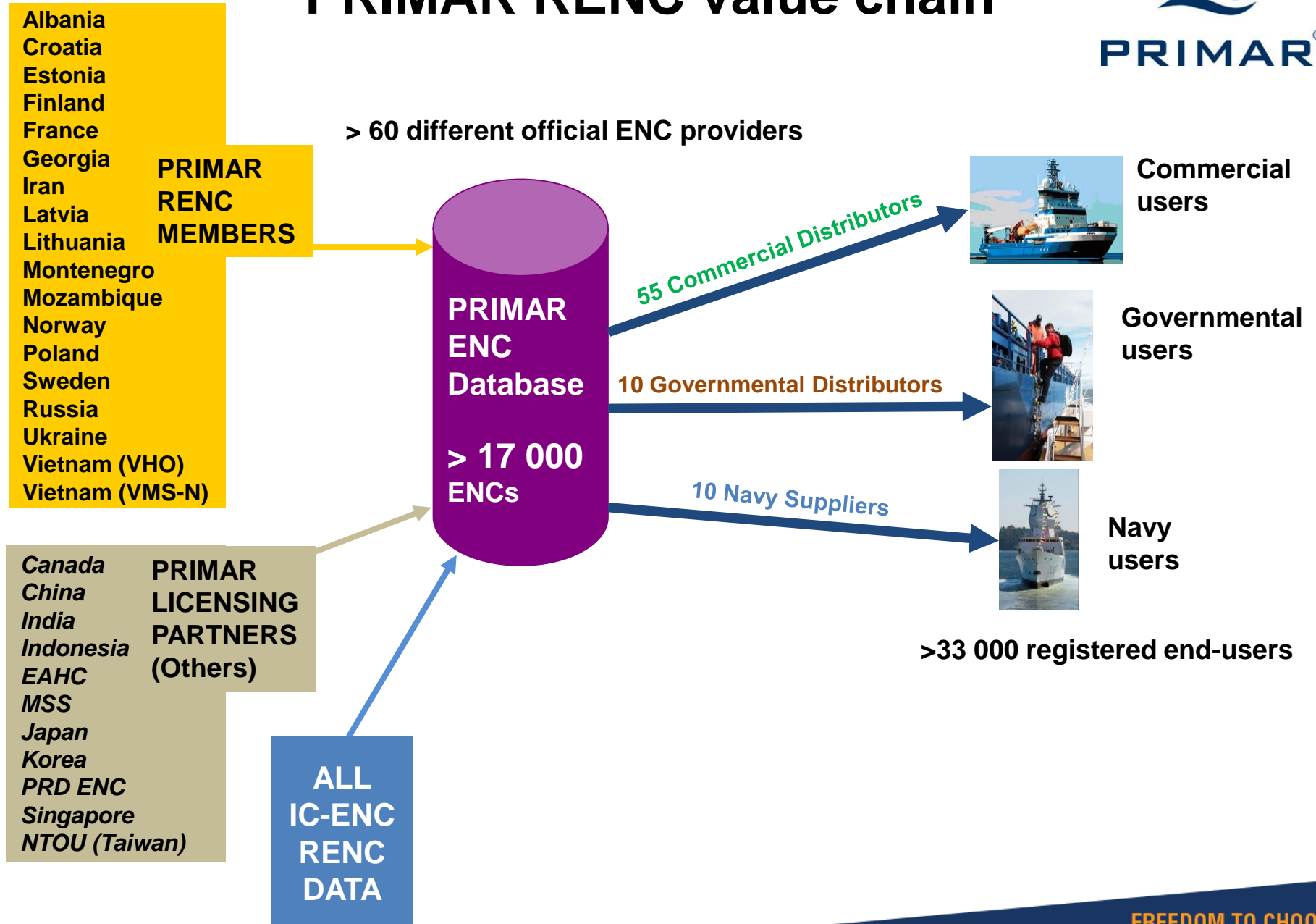
Date	Total no of ENCs	Overview	General	Coastal	Approach	Harbor	Berthing	Updates
01.01.21	16634	178	634	2509	5147	6249	1917	47705
01.07.21	17158	180	648	2572	5325	6488	1945	48707
31.12.21	17803	180	665	2681	5455	6815	2007	43885

ENC QC AND VALIDATION SERVICES

- PAC 24 approved to introduce KPIs for ENC validation in PRIMAR. The following validation completion times was achieved in 2021:

Type of data	Validation KPI (95%)	2020 Average Achieved
ENC Update	1 day	9 hrs.
ENC New Edition	2 days	7 hrs.
New ENC	3 days	10 hrs.

PRIMAR RENC value chain



2021 Capacity Building / training

- S-100 / S-101 online training course:

Module 1: S-100 Overview:

History, Objectives, Content, Benefits and Maintenance.

Module 2: IHO Registry:

Structure, Content, Registers and Testbeds.

Module 3: S-101 General Overview:

Content, Features, Attributes, Relationships, Geometry, DCEG and Encoding.

Module 4: S-101 Data Quality:

CATZOC and Quality of Bathymetric Data, Horizontal/vertical uncertainty and Visualization.

Module 5: S-101 Conversion and Challenges:

Features, Attributes, Enumeration, Geometry and Topology.

Module 6: S-100 Part 15 Data Protection:

Encryption, Signing, Certificates and Public/Private key.

2021 Capacity Building / training

- S-100 / S-101 online training course:
 - 6 modules – 12 hrs. duration.
 - 2021: 266 participants
 - 132 completed courses
 - 38 different hydrographic offices
 - 5 different organizations

2021 Financial Issues

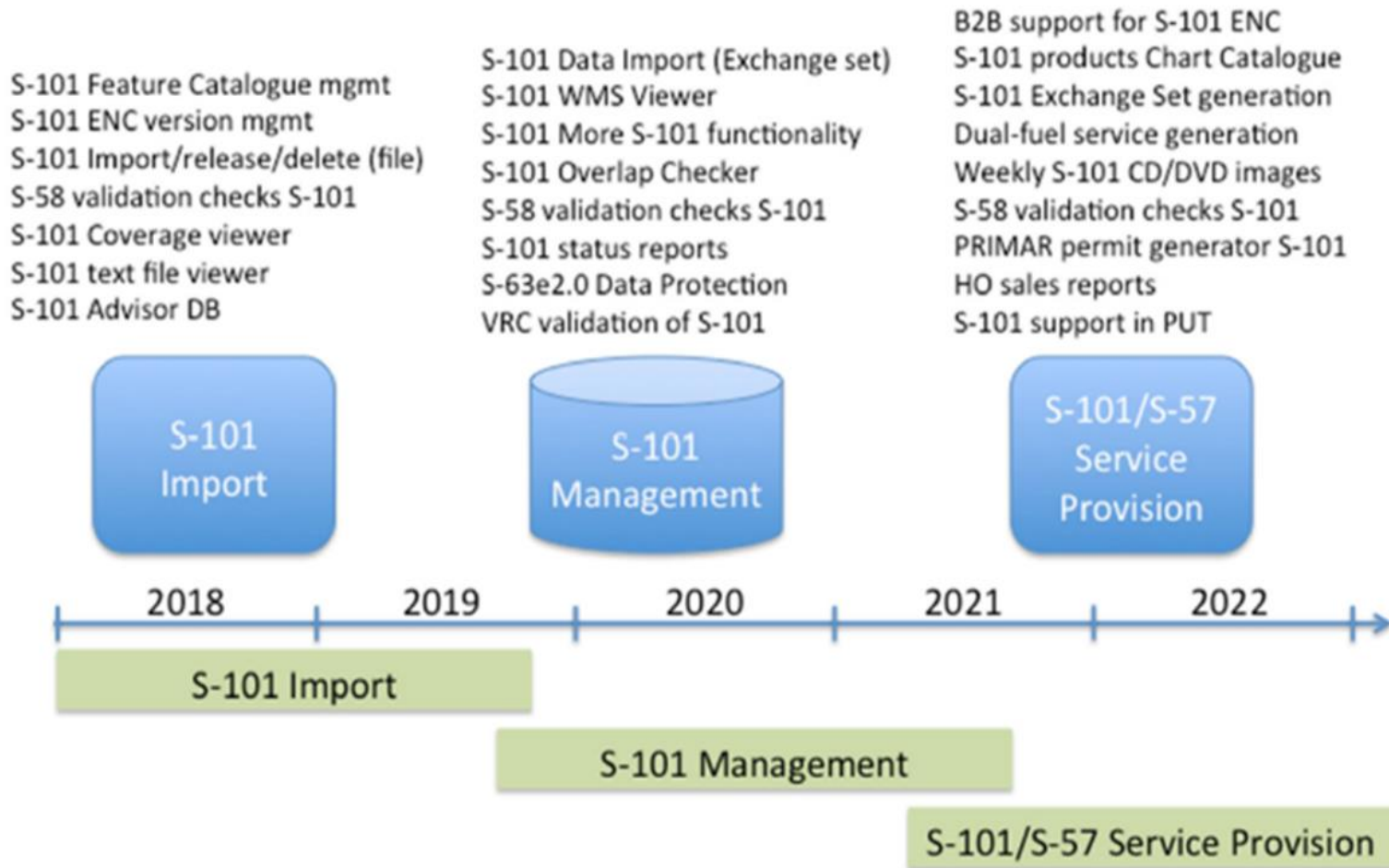
- Total revenue of ENC sales in 2021 had a 19,5% increase compared with 2020.
- Financial surplus (excess of cost coverage after regular royalty payments) of approximately \$1.1M.
 - Giving room for several projects as well as extra royalty payments to member nations.

2021 Technology Development



- Development of S-101 Service.
- Update and further development of S-100 Service.
- Development of Publication Service.

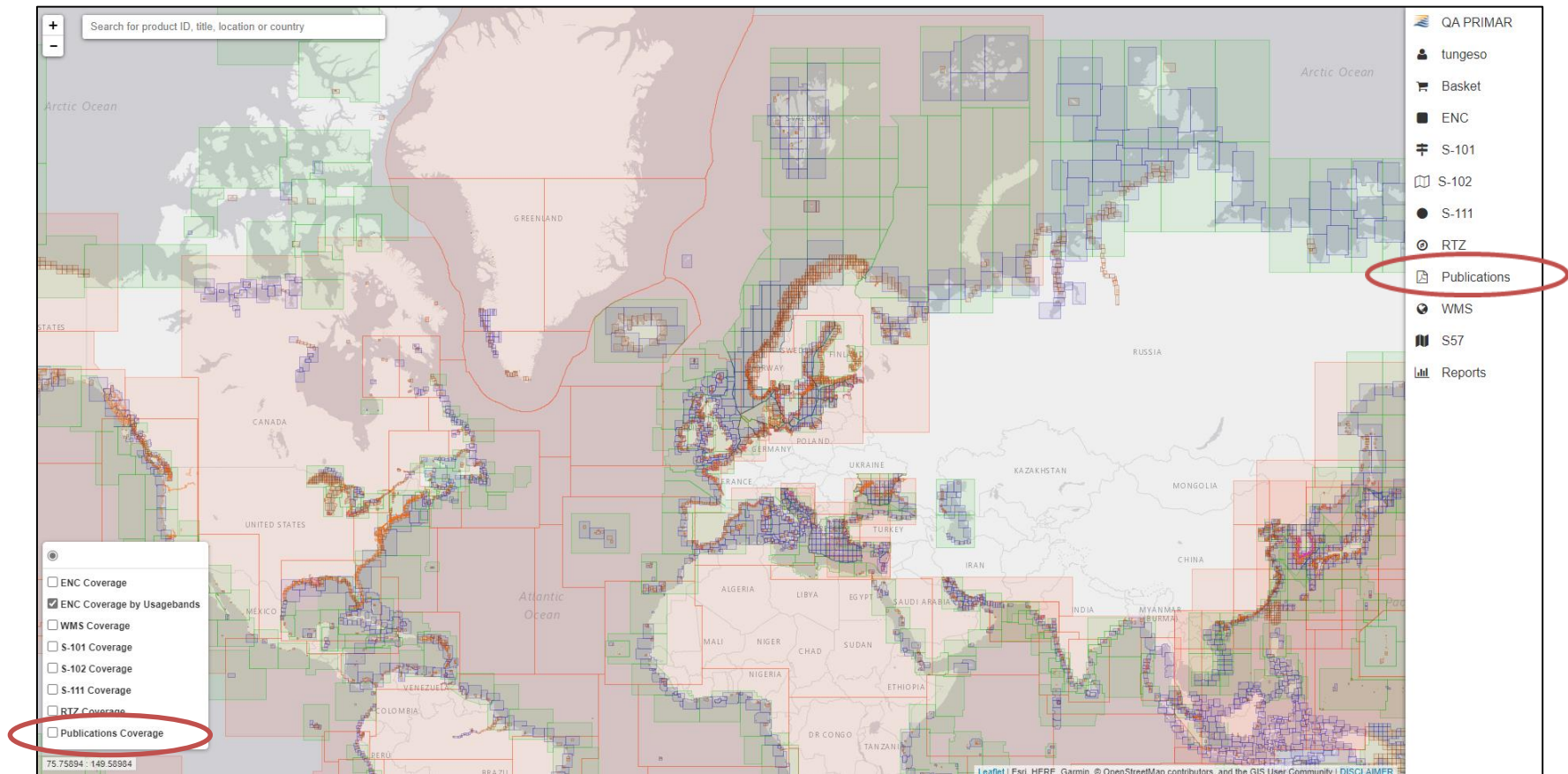
PRIMAR S-101 Project Status



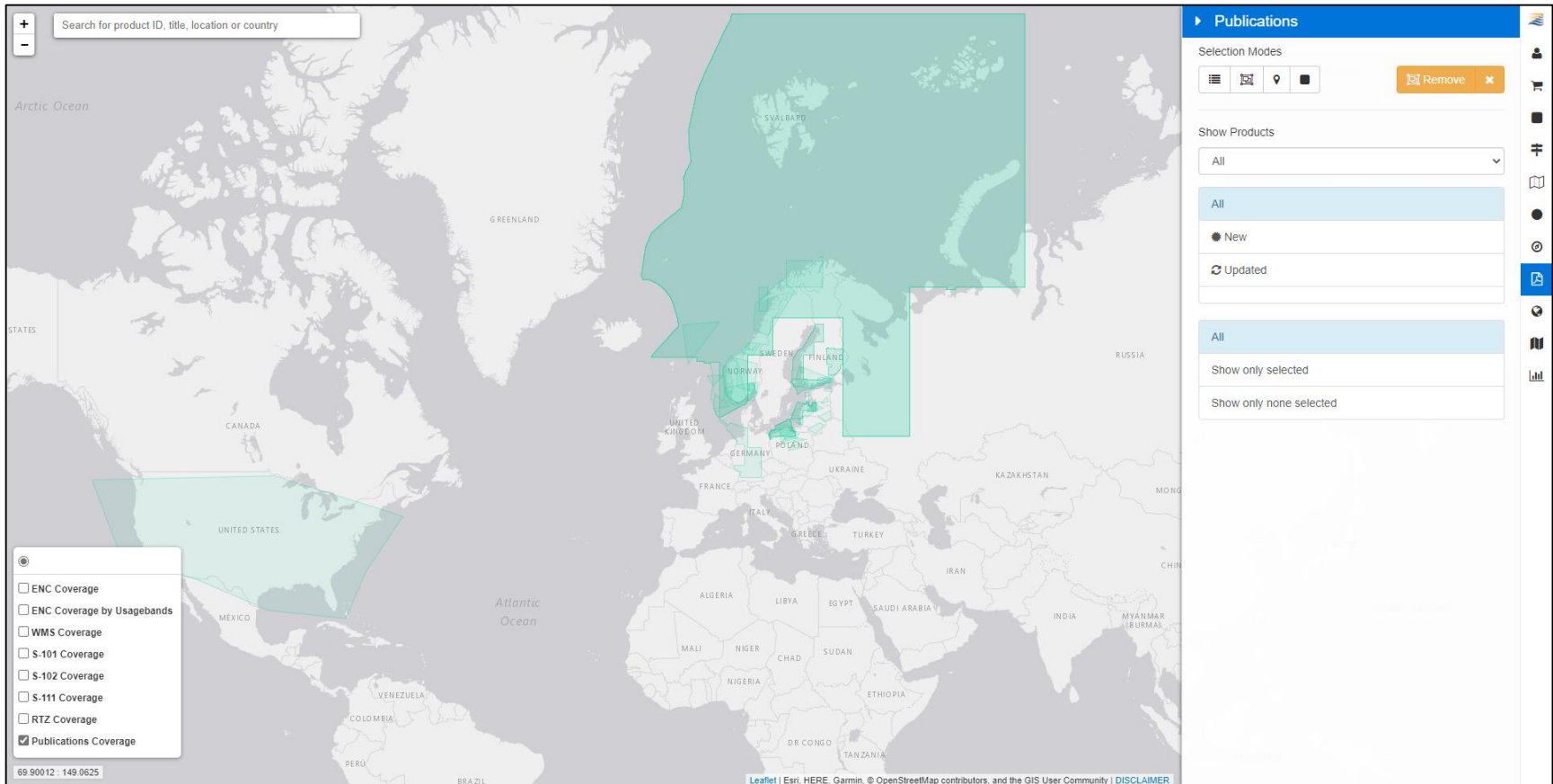
PRIMAR S-101 Project Status

- Focus in 2021 has been on:
 - Development of Validation Report Checker
 - Quality control with WMS view of data
 - S-100 part 15 signature service to HO's
 - Chart Catalogue S-101 value added services

PRIMAR Chart Catalogue – Publications

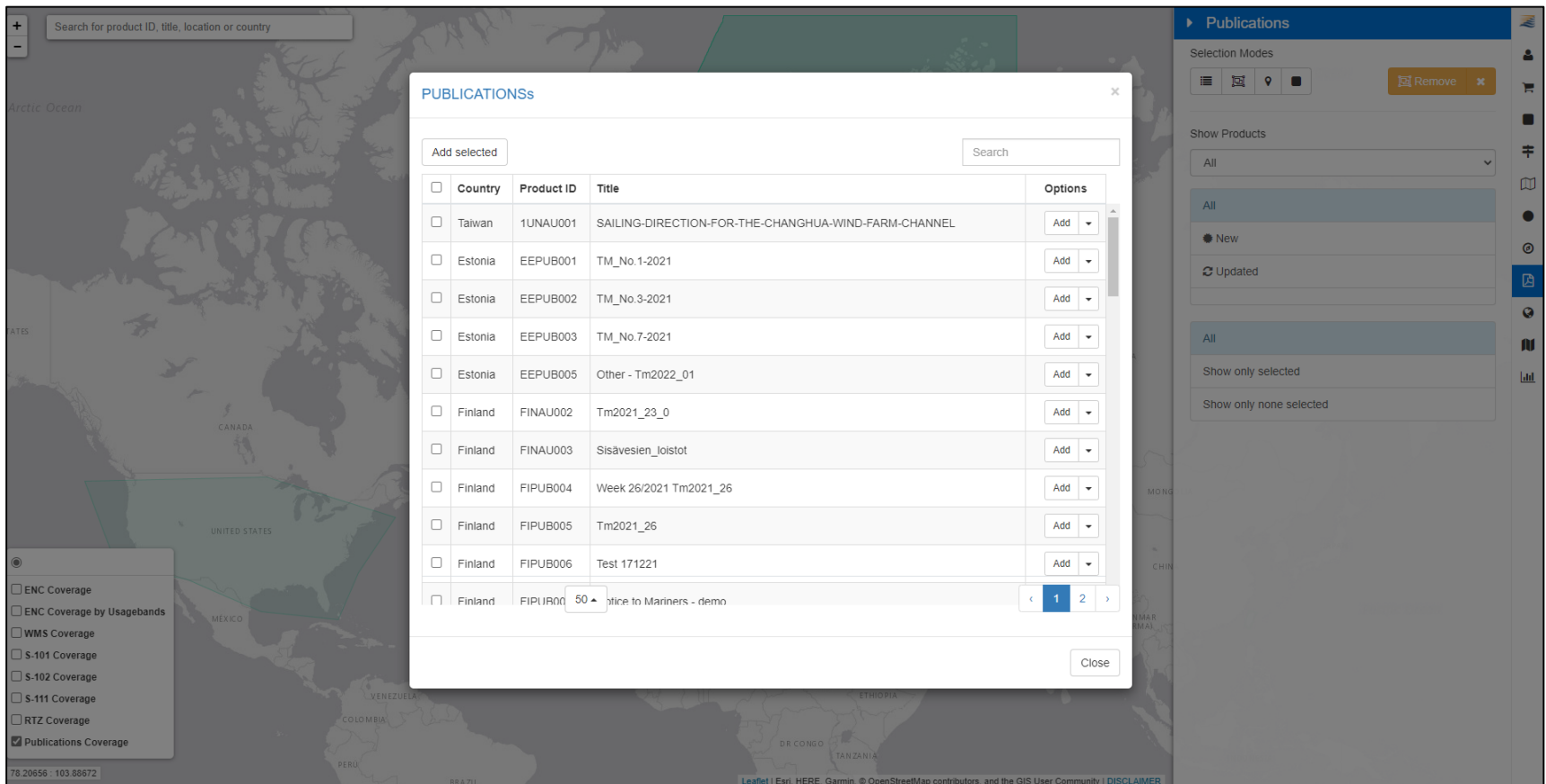


PRIMAR Chart Catalogue-Publications



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, and others. The map is powered by Leaflet, Esri, HERE, Garmin, OpenStreetMap contributors, and the GIS User Community.

Publication selection list



The screenshot displays the PRIMAR web application interface. A map of the North Atlantic region is visible in the background. A search bar at the top left contains the text "Search for product ID, title, location or country". A sidebar on the left 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). A central dialog box titled "PUBLICATIONSs" is open, showing a table of publications. The table has columns for Country, Product ID, Title, and Options. The right sidebar shows the "Publications" section with "Selection Modes" (All, New, Updated) and "Show Products" (All, Show only selected, Show only none selected).

Country	Product ID	Title	Options
Taiwan	1UNAU001	SAILING-DIRECTION-FOR-THE-CHANGHUA-WIND-FARM-CHANNEL	Add
Estonia	EEPUB001	TM_No.1-2021	Add
Estonia	EEPUB002	TM_No.3-2021	Add
Estonia	EEPUB003	TM_No.7-2021	Add
Estonia	EEPUB005	Other - Tm2022_01	Add
Finland	FINAU002	Tm2021_23_0	Add
Finland	FINAU003	Sisävesien_loistot	Add
Finland	FIPUB004	Week 26/2021 Tm2021_26	Add
Finland	FIPUB005	Tm2021_26	Add
Finland	FIPUB006	Test 171221	Add
Finland	FIPUB007	Notice to Mariners - demo	Add

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 Targets for 2022

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

Thank you for your attention
Questions?

www.primar.org