



An Introduction to PRIMAR

Minika Bjørge, RENC Manager

Operated by the Norwegian Hydrographic Service

FREEDOM TO CHOOSE

Content



- About PRIMAR RENC
- Data Coverage
- PRIMAR Services
- PRIMAR Distribution

RENC?

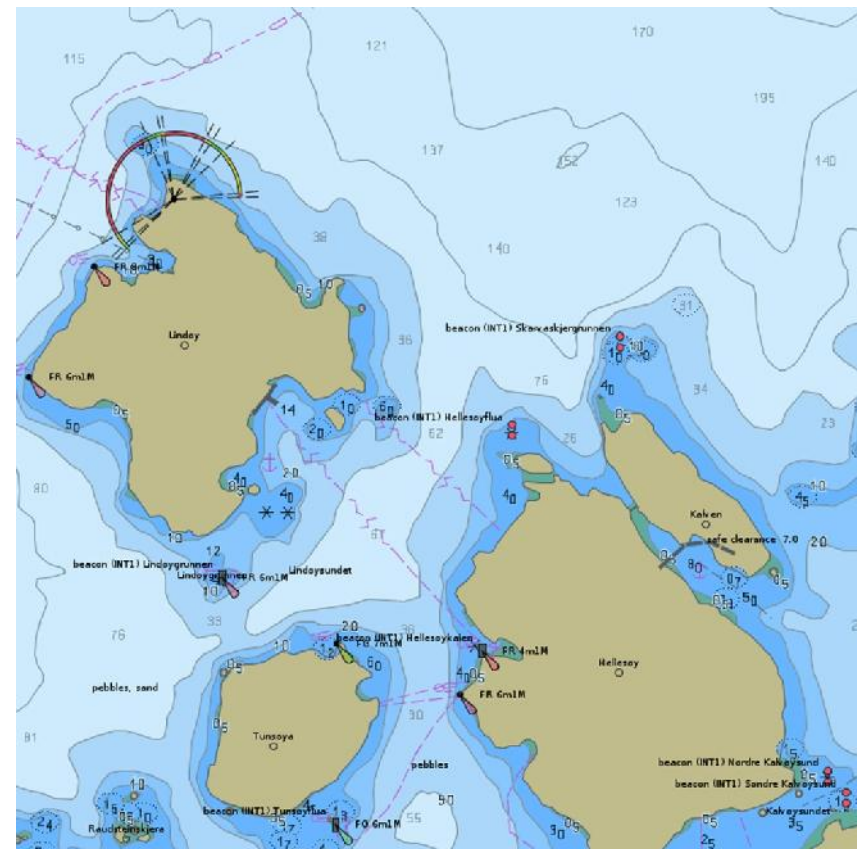


- An organization that assists HOs in the production, quality assurance and distribution of ENCs.
- Operates in accordance with the IHO standards and WEND principles.
- Contributes to safety at sea by enhancing ENC quality and accessibility in consistent way.

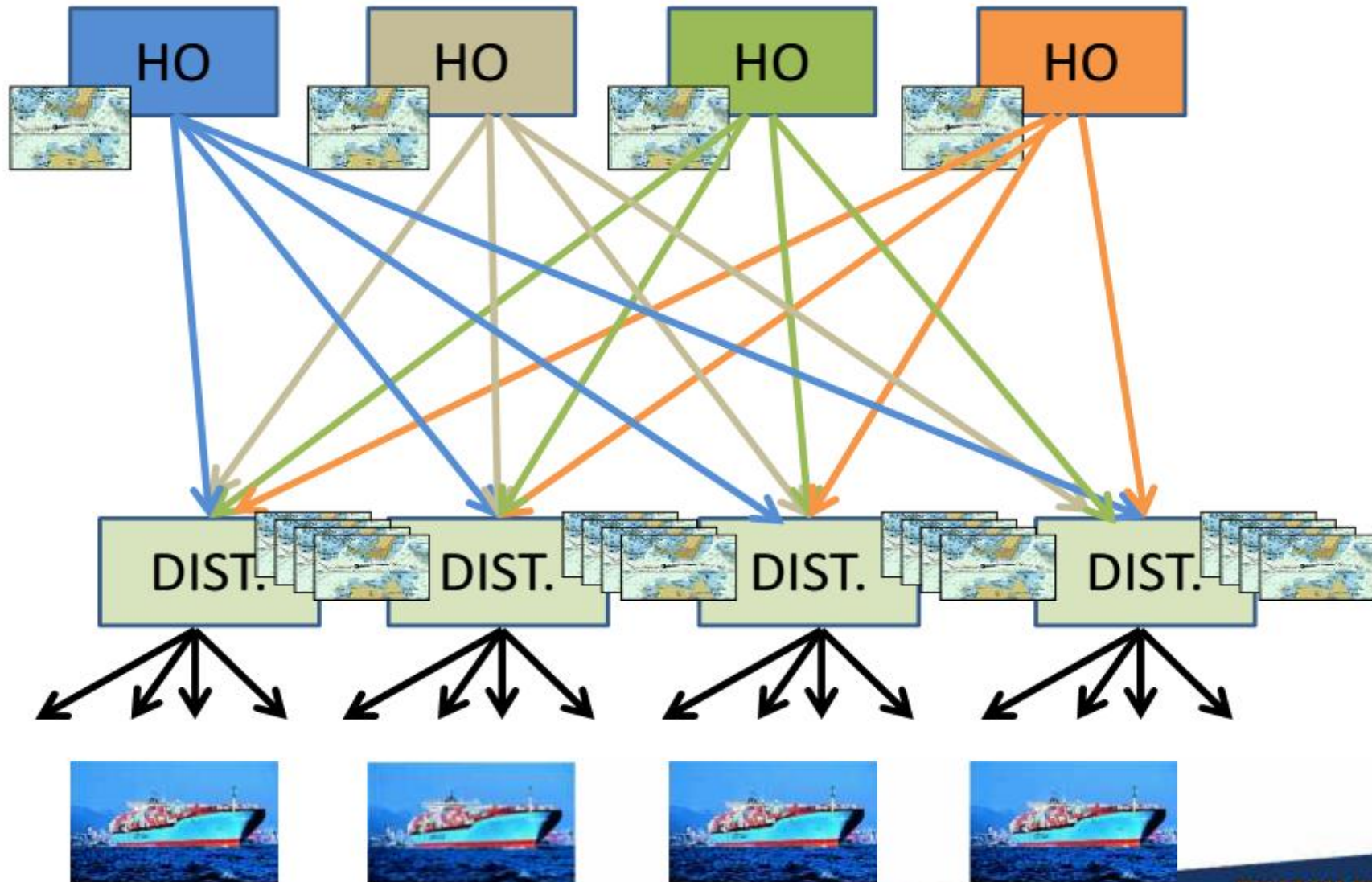


PRIMAR – Organisation

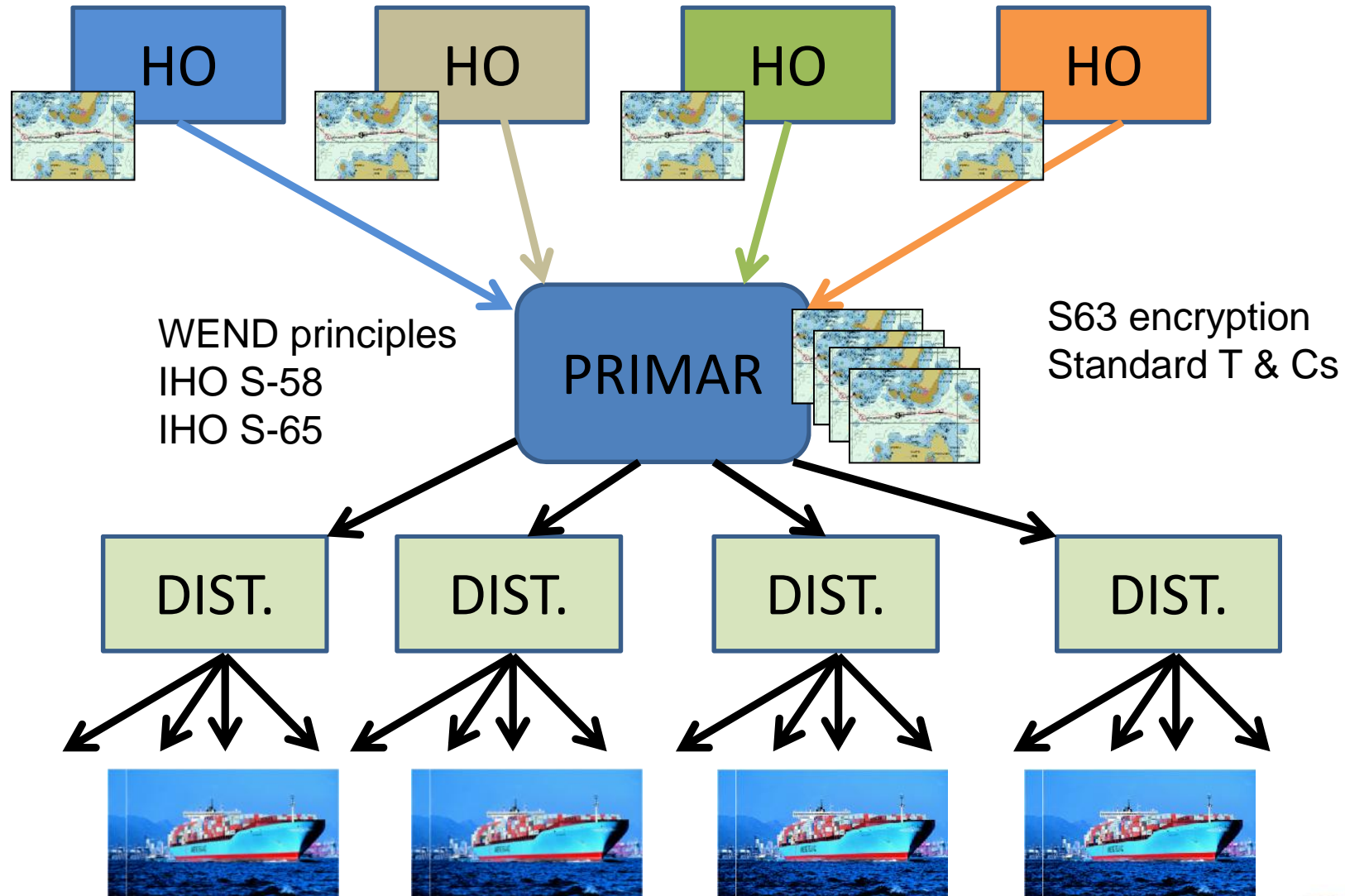
- Regional ENC Coordinating Centre (RENC) established in 1999
- Operated on a **non-profit basis** by the **Norwegian Hydrographic Service.**
- Provides a **consistent and reliable** electronic navigational chart (ENC) service world-wide
- Assist HOs in quality assurance and distribution of ENCs in a consistent way



Distribution without a RENC



PRIMAR RENC Concept – One Stop Shop



- **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**

- **Primary Role:**

To ensure a harmonized quality level of official electronic navigational charts (ENCs) from many producer nations (i.e. national hydrographic offices)

To make this information available through a network of distributors to international shipping on a 24/7 basis.



PRIMAR Membership

- **PRIMAR Member Nations:**

17 Core members

Brazil, Croatia, Estonia, Finland, France, Georgia, Greece, Iran, Latvia, Lithuania, Montenegro, Mozambique, Norway, Poland, Russia, Sweden and Ukraine.

- **Licensing Partners:**

For nations outside the RENC cooperation distributing their ENC's through PRIMAR

Canada, EAHC ENC's, India, Japan, South-Korea, Singapore, Malacca and Singapore Straits (MSS), USA, Hong Kong, Malaysia and Italy

PRIMAR Governance

- PRIMAR is controlled by its members through PAC
- PAC is chaired by a member nation and this position is rotated amongst the members.

PRIMAR Advisory Comitee (PAC)

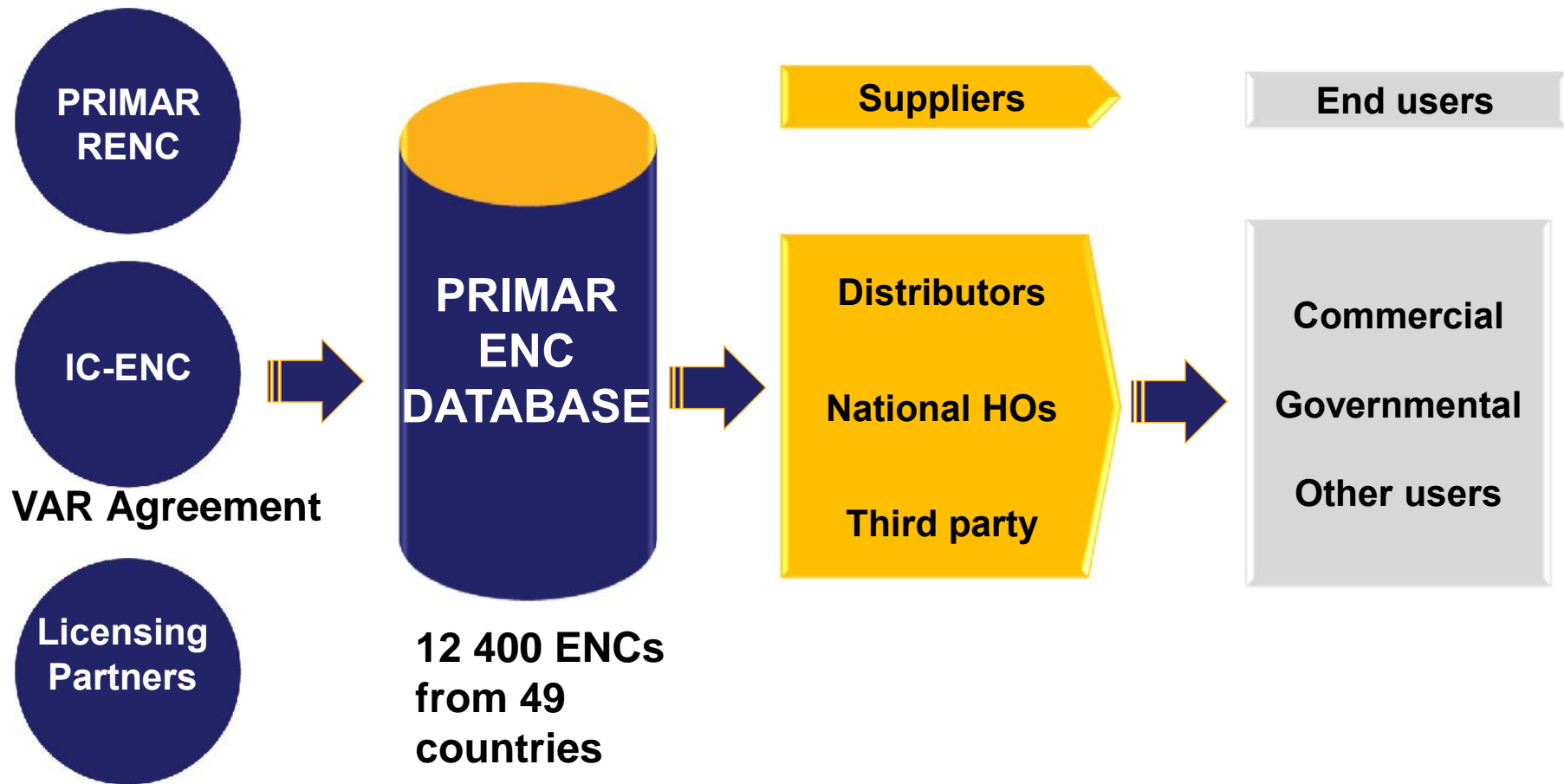
PRIMAR
Strategic
Working
Group
(PSWG)

PRIMAR
Financial
Working
Group
(PFWG)

PRIMAR
Marketing
Working
Group
(PMWG)

PRIMAR
Technical
Working
Group
(PTWG)

PRIMAR Value Chain



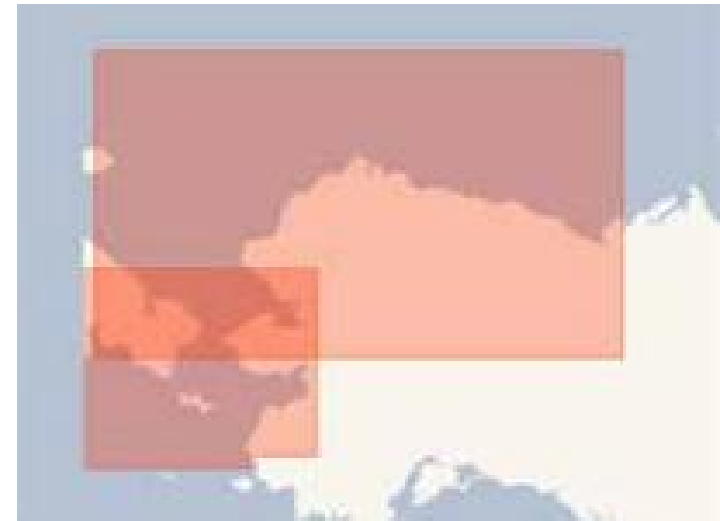
Services to Cooperating HOs



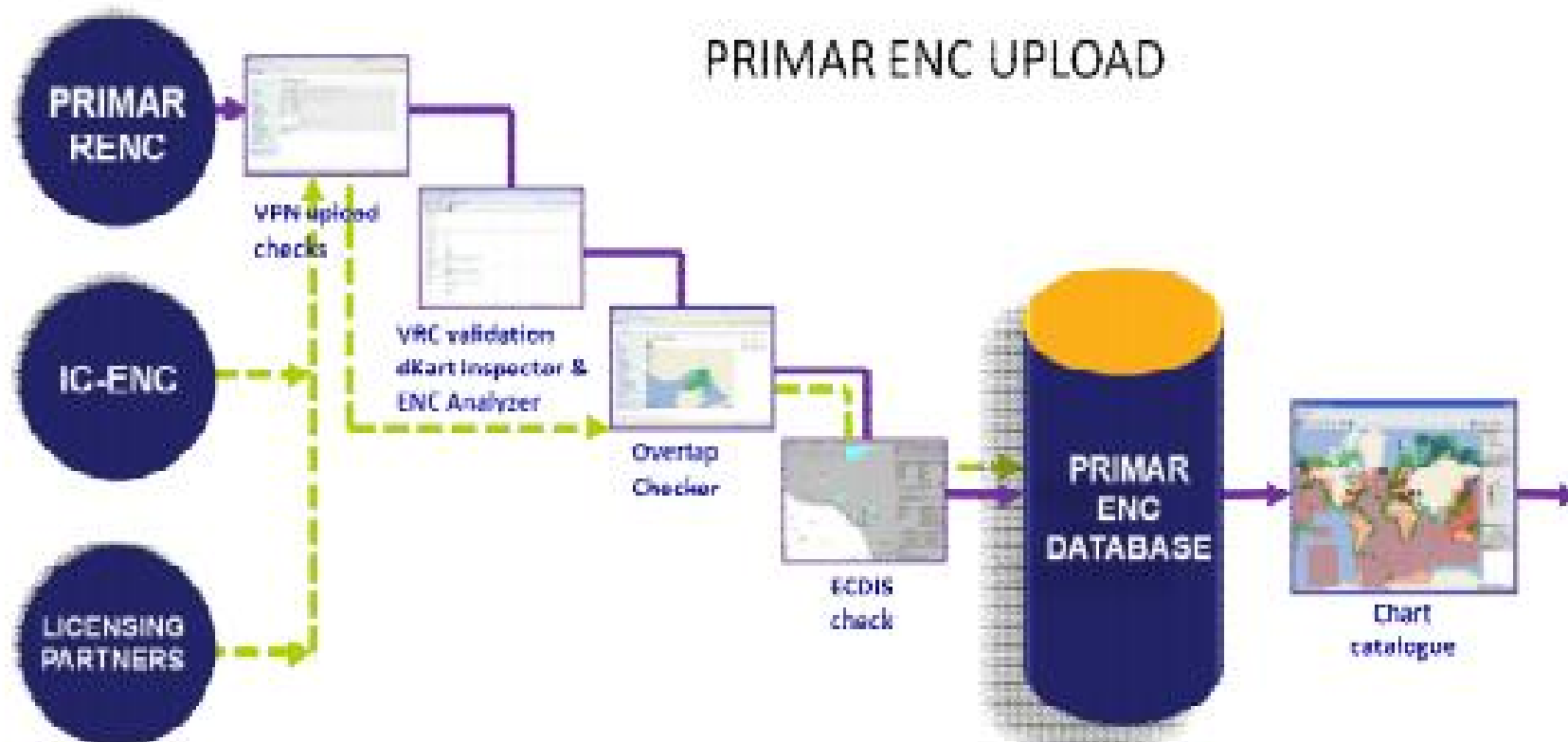
- **Database Management: 24/7 access to own data.**
 - Allows for an encrypted transfer of ENC's from a member nation directly to pre-release database.
 - Full control over data upload, download and release operations
- **Quality Assurance Services**
- **National Services**
- Tailored Training / Workshops on ENC quality control and in the use of the PRIMAR ENC tools
- Operational and technical support - S-57, S-58, S-65, S-101, S-102
- **Distribution and Revenue Management**

PRIMAR - Quality Assurance Services + S-63 Data encryption

- **A range of tools available for checking the ENC quality**
- ENC Validation (Validation report checker)
 - Automatic check of ENCs on upload to the PRIMAR database (S-58 checks) etc
- Other tools **developed in-house:**
 - ENC consistency checker
 - ENC overlap checker (IRCC overlaps procedures)
 - + more
- ECDIS system checks
- Data protection: IHO S-63 standard



PRIMAR Validation Procedures



PRIMAR - National Services

- **Member nations only**
- National services for navigational purposes
 - Pilots, Vessel Traffic Control, Search & Rescue
- National services for non-navigation using products derived from ENC's
 - Coastal zone management & Contingency planning
- Navy Supplier service for delivery of ENC's to the nation's own navy / coast guard
- PRIMAR Inspector Service for Port State Control Officers





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PRIMAR Web Chart Service

The screenshot displays the PRIMAR Web Chart Service interface. The main window shows a map of a coastal area with various navigational aids and depth contours. The URL in the browser is <http://www.paikkatietokkuna.fi/web/fi/kartta>. A detailed view of a specific object is shown in a separate window, titled "X-GIS(1) - flash". The object information panel includes the following details:

- Object Info:** Maa- ja merialueiden rekisteri
- Light:** EE50820K
FOID(AGEN=87C,FDN=3704623622,FDS=2)
 - Colour: white
 - Exhibition condition of light: high light
 - Light characteristic: quick-flashing
 - Signal group: (3)
 - Signal period: 10
 - Signal sequence: 00.5+(01.5)(00.5)(00.5)(07.5)
 - Status: operational
 - Source minimum: 10000
 - Source date: 20070228
 - Source indication: LL,LL,Recd,NW-1.1
- Buoy, cardinal:** EE50820K
FOID(AGEN=87C,FDN=207482177,FDS=1)
 - Buoy shape: pillar
 - Category of cardinal mark: east cardinal mark
 - Colour:

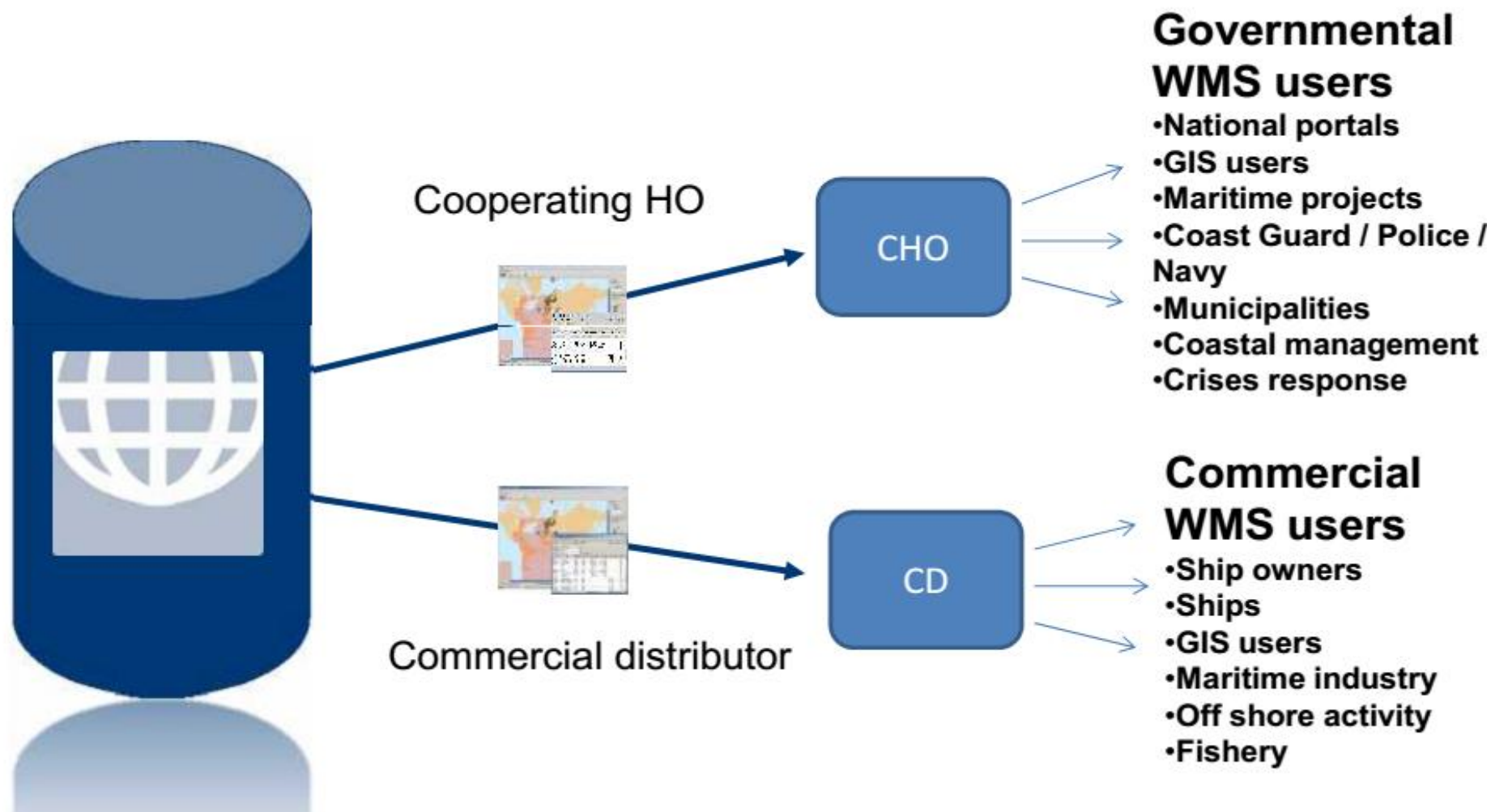
At the bottom of the interface, there is a scale bar from 0 to 500m and a disclaimer: "Maa- ja merialueiden rekisteri. PRIMAR NAVIGEEERIMISEKS MITTE KASUTADA".

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PRIMAR Web Chart Service



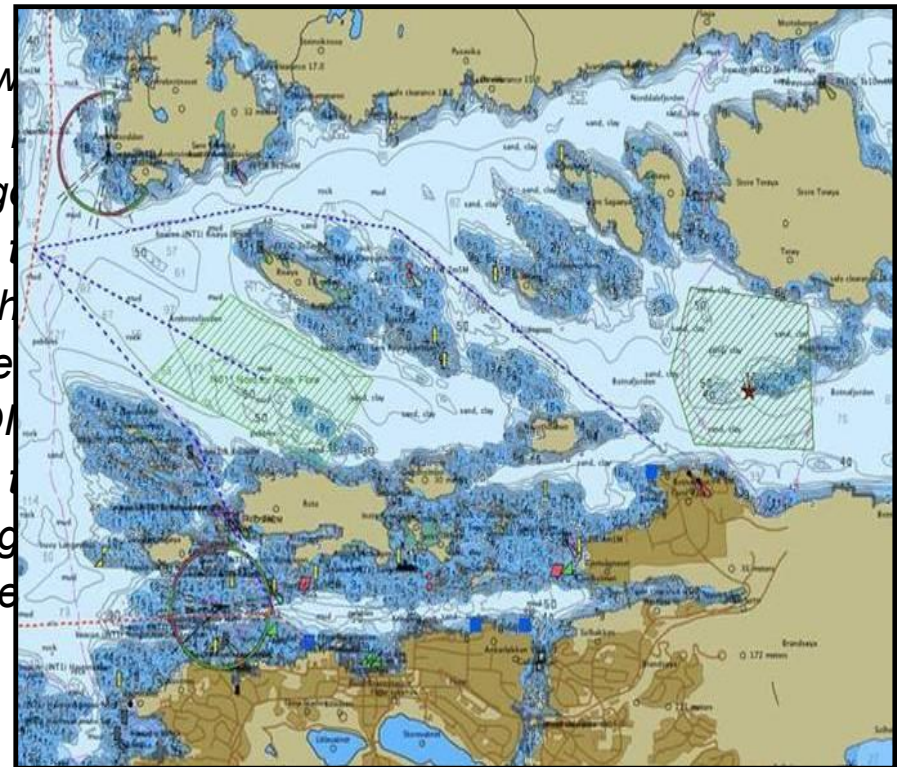


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PRIMAR Web Chart Service User Story

*Anchorage areas for commercial vessels
requiring compulsory pilotage:*

“To be able to manage the anchorage areas, we used ENC data and Bathymetric data on WMS in conjunction with raster charts on a GIS system to get a better overview of the information needed to support the decision for the best definition of the areas that must be provided for anchoring of vessels along the Norwegian coast. Use of ENC data on ECDIS does not offer the same possibilities with regards to information overlays and data analysis. The image shows the previously charted area and the proposed anchorage area (shaded in green)”



**Department for Maritime Traffic,
Norwegian Coastal Administration**



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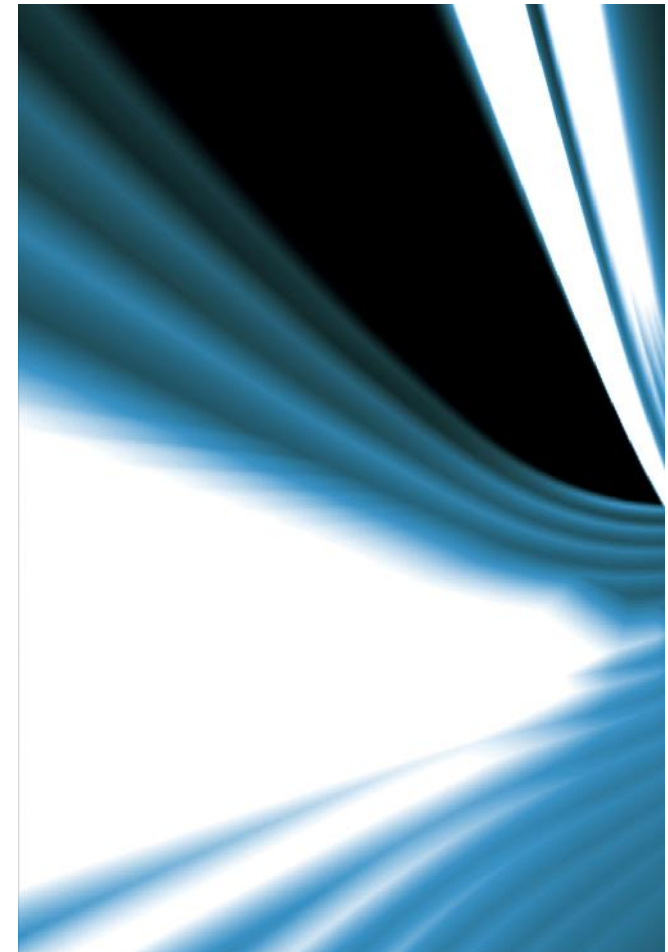
Summary of Services to Members

Database management tools and services	Quality Assurance Tools and Services	National Services
<ul style="list-style-type: none">✓ ENC upload/upload checks✓ ENC download Pre-Released✓ ENC delete✓ ENC release✓ ENC download release✓ ENC reports✓ ENC usage/sales reports✓ ENC exchange set generator✓ IHO meta data report✓ Data protection and digital signature✓ S-102 data distribution	<ul style="list-style-type: none">✓ ENC validation report checker (VRC) based on:<ul style="list-style-type: none">○ dKart Inspector○ ENC Analyzer✓ S-57 Advisor✓ ENC Overlap checker✓ ISO8211 to Text✓ ENC check update✓ ECDIS Furuno and Transas + (Maris & Adveto)✓ S-57 support✓ S-101/S-102 competence/general competence on IHO standards	<ul style="list-style-type: none">✓ ENC Pilot Services✓ ENC VTS Services✓ ENC Navy Services✓ Inspector service (Port State Control)✓ Web Map Services based on ENC



PRIMAR ENC Distribution & Revenue Management

- PRIMAR ENC's are only available through authorized distributors
- Coordinate and manage the wholesale supply of its members' ENCs
- Manages all aspects of sales reporting, invoicing and revenue collection process
- All PRIMAR members have on-line access to national sales, data and customer figures through the VPN
- Coordinate feedback from the market to the relevant member nation.



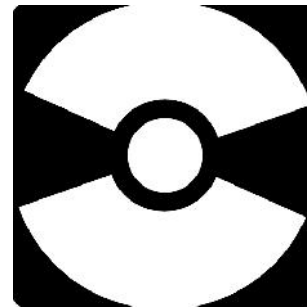
ENC Distributor Services Freedom to Choose



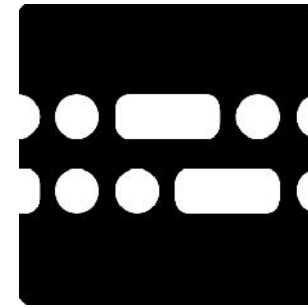
Chart
Catalogue



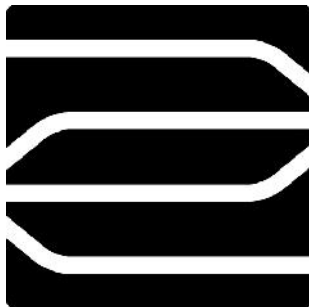
Online
Distribution



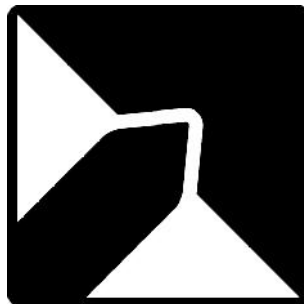
CD & DVD
Distribution



Permit
Distribution



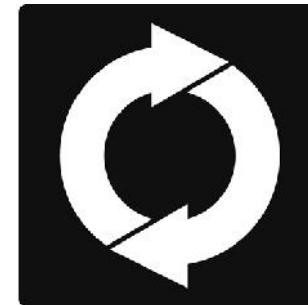
Business to
Business



Pay as
You Sail

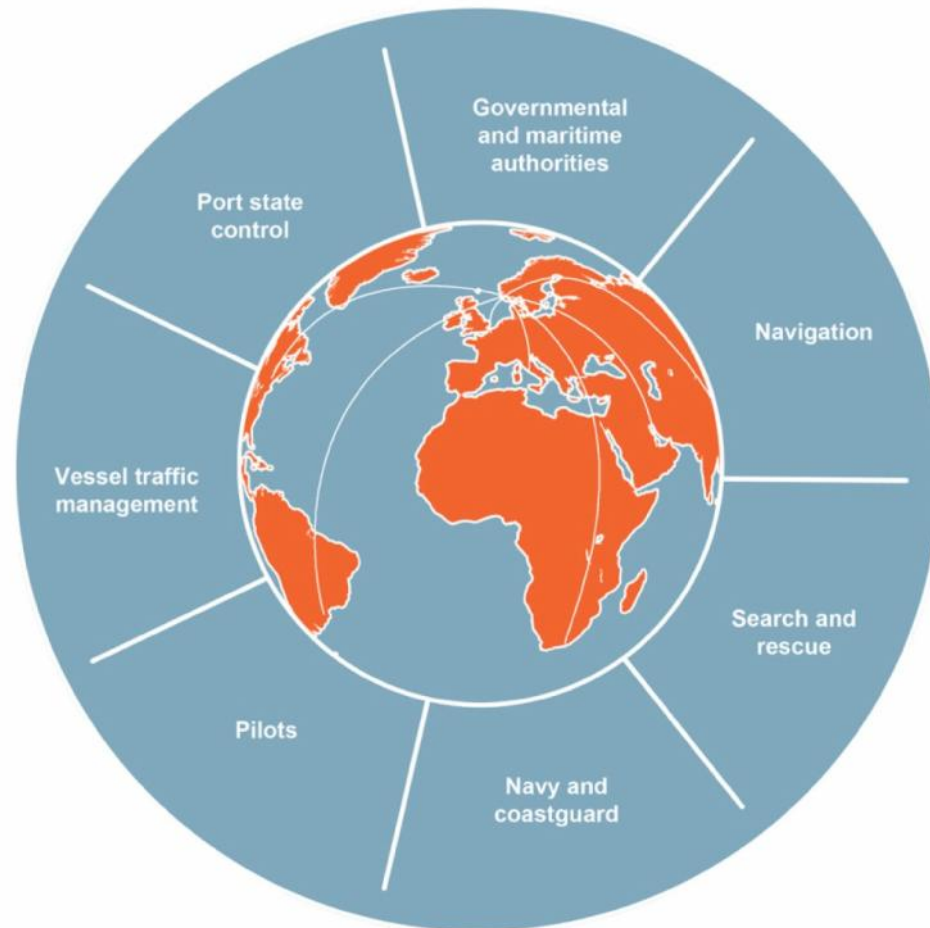


Web Chart
Service



PRIMAR
Update Tracker

Service Levels & Maritime Safety Circle



- **All actors have access to the same charting information**
- By utilizing the **PRIMAR infrastructure**, a member nation can
 - contribute to increased maritime safety and
 - protect the maritime environment.

Capacity Building: Montenegro

- Montenegro lacked a production environment and detailed knowledge in ENC production
- PRIMAR provided support in the development of full ENCs production environment and training (funded by the NHS)
- SevenCs capacity building program - setup of full production environment and staff training completed in three months



Visit us at Stand 12 – EIHC Conference



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Thank you for your attention

www.primar.org

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