



**PRIMAR**<sup>®</sup>

# **PRIMAR RENC services and updates**

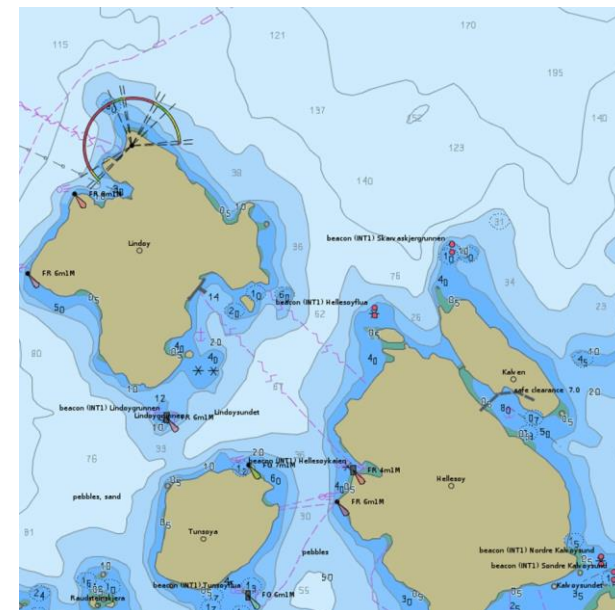
**Evert Flier, Director NHS  
SAIHC, Cape Town 30 - 31 September 2016**



PRIMAR®

# What is PRIMAR?

- PRIMAR is a Regional ENC Coordinating Centre (RENC) located in Stavanger, Norway. In operation since 1999.
- PRIMAR is operated on a non-profit basis by the **Norwegian Hydrographic Service** in close cooperation with the **Electronic Chart Centre (ECC)**.
- PRIMAR operates fully compliant with IHO guidelines, principles and standards.
- PRIMAR has been ISO certified since 2005.



# What does PRIMAR?

- Provide cooperating hydrographic offices with operational and technical support and services in their work to produce, quality control and deliver harmonized ENC's.
- Marketing and ENC sales on behalf of the HO.
- Provides a consistent and reliable electronic navigational chart (ENC) service world-wide.
- Provide all actors with responsibilities for safety of navigation and protection of the maritime environment with accurate up-to-date maritime geospatial data.
- Has a continuous focus on technology and innovation.

# Governing Body and Sub-Groups

## PRIMAR Advisory Comitee (PAC)

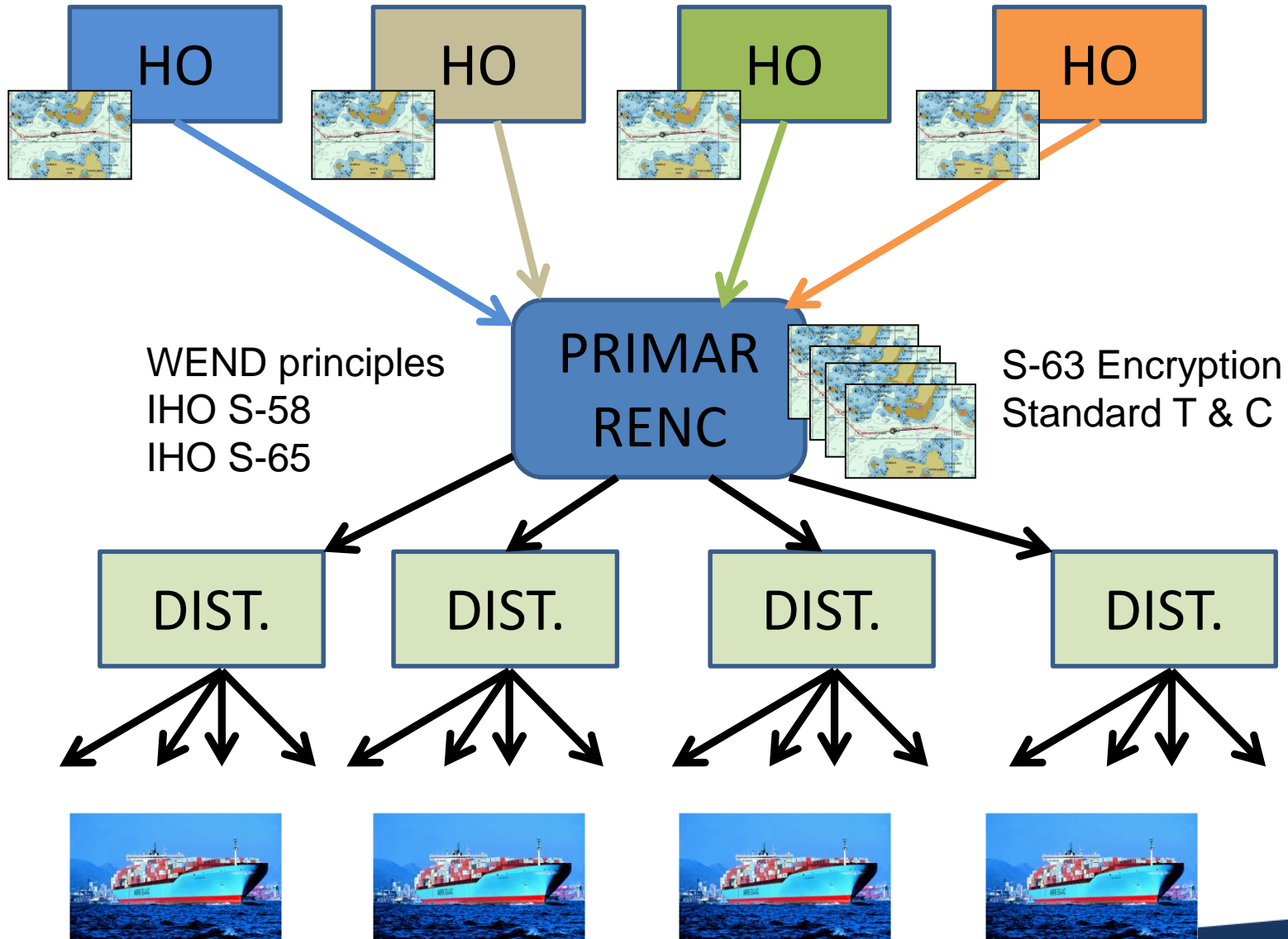
PRIMAR  
Strategic  
Working  
Group  
(PSWG)

PRIMAR  
Financial  
Working  
Group  
(PFWG)

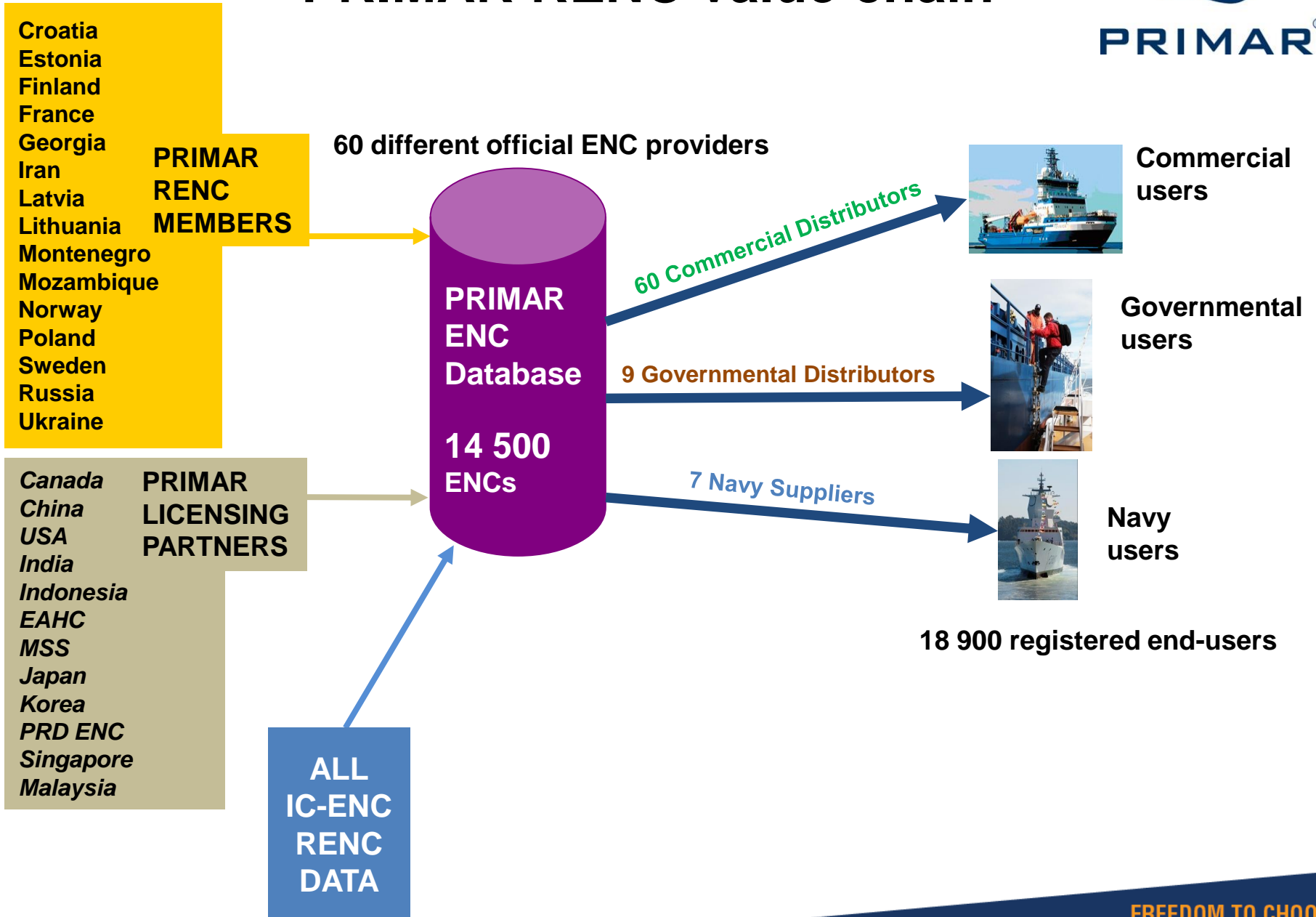
PRIMAR  
Marketing  
Working  
Group  
(PMWG)

PRIMAR  
Technical  
Working  
Group  
(PTWG)

# ENC Distribution through PRIMAR



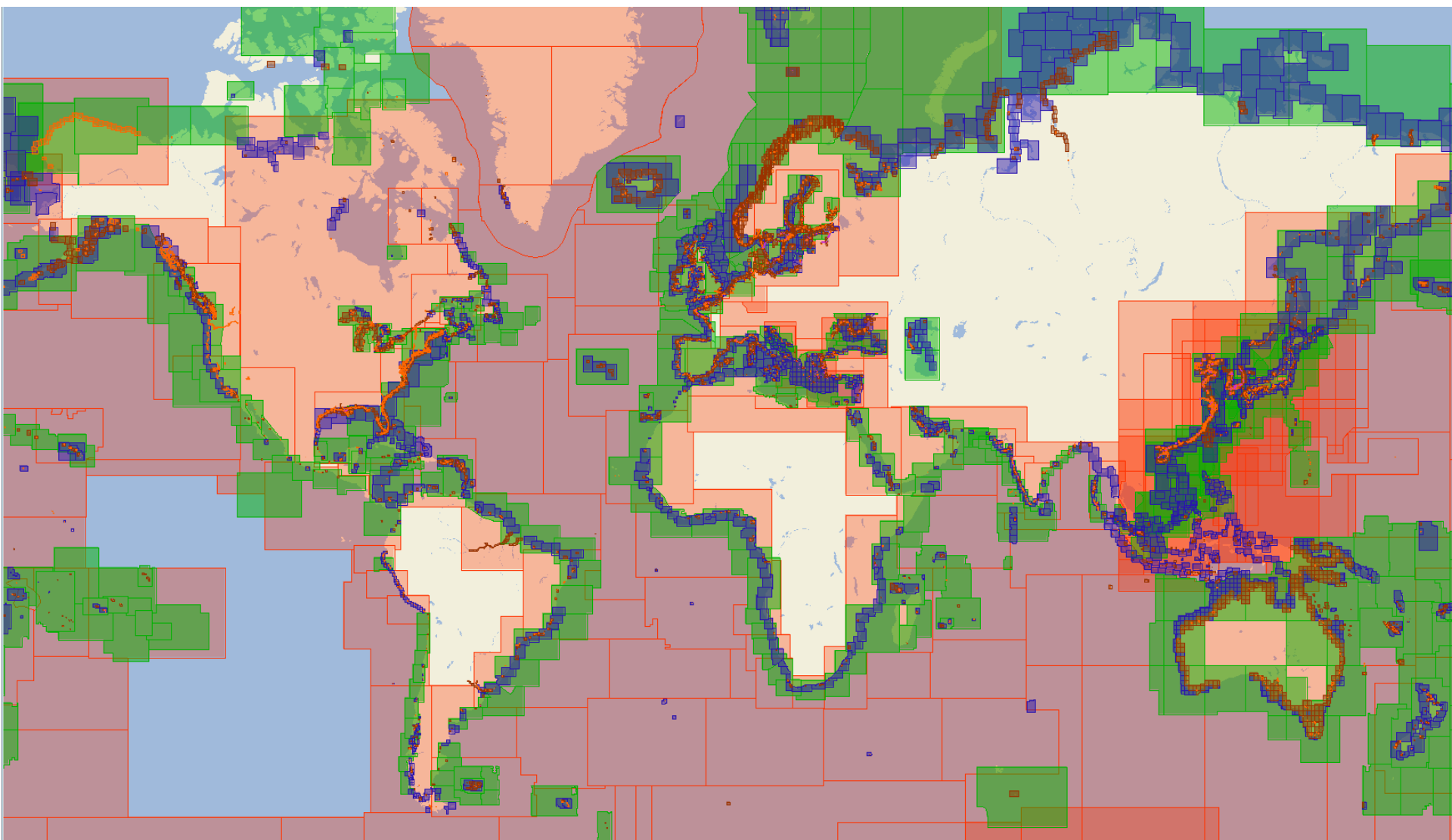
# PRIMAR RENC value chain





PRIMAR®

# PRIMAR Chart Catalogue – Global ENC Coverage



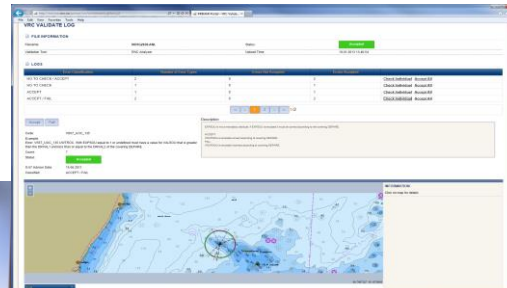




PRIMAR®

# PRIMAR capacity building

- 6 PRIMAR training courses arranged during 2015 / 2016.
- Training provided in ENC production support and PRIMAR tools for ENC delivery, validation and quality control.
- Training provided for 12 nations with 46 participants in total.





# PRIMAR Governmental Supplier Services





**PRIMAR**<sup>®</sup>

# PRIMAR ENC Distribution

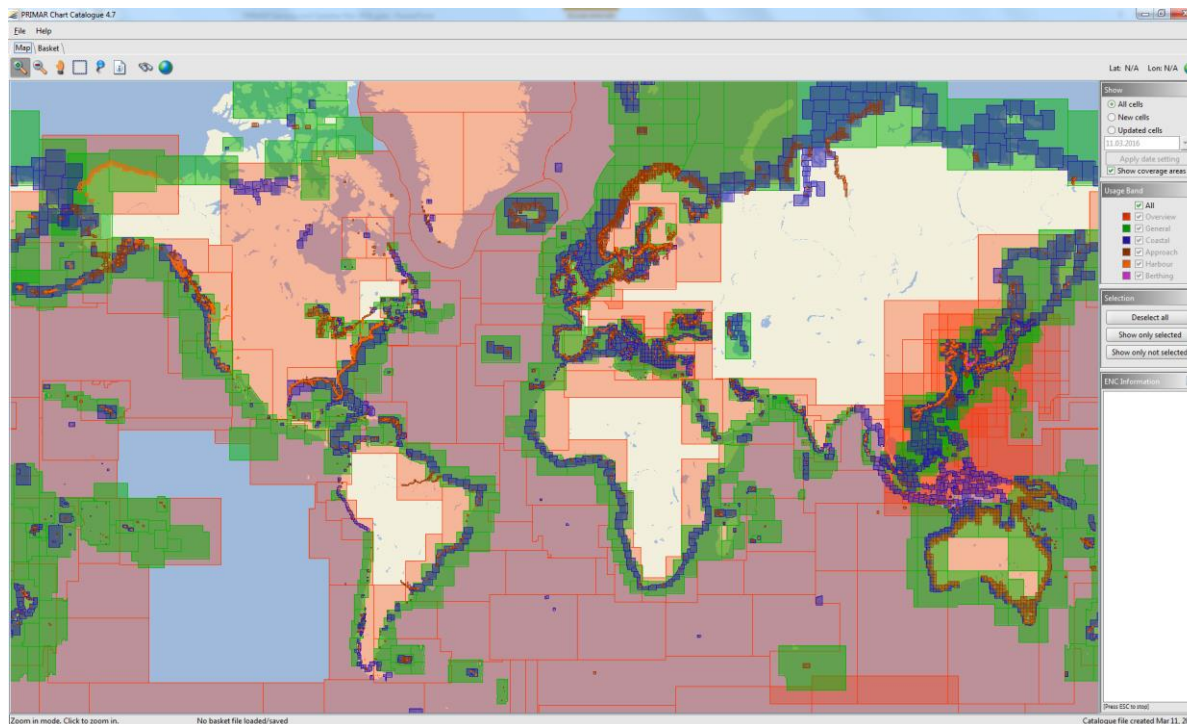


**PRIMAR supports a wide range of services to assist hydrographic offices in meeting their national requirements.**



# PRIMAR Navy / Governmental Supplier Services **PRIMAR**<sup>®</sup>

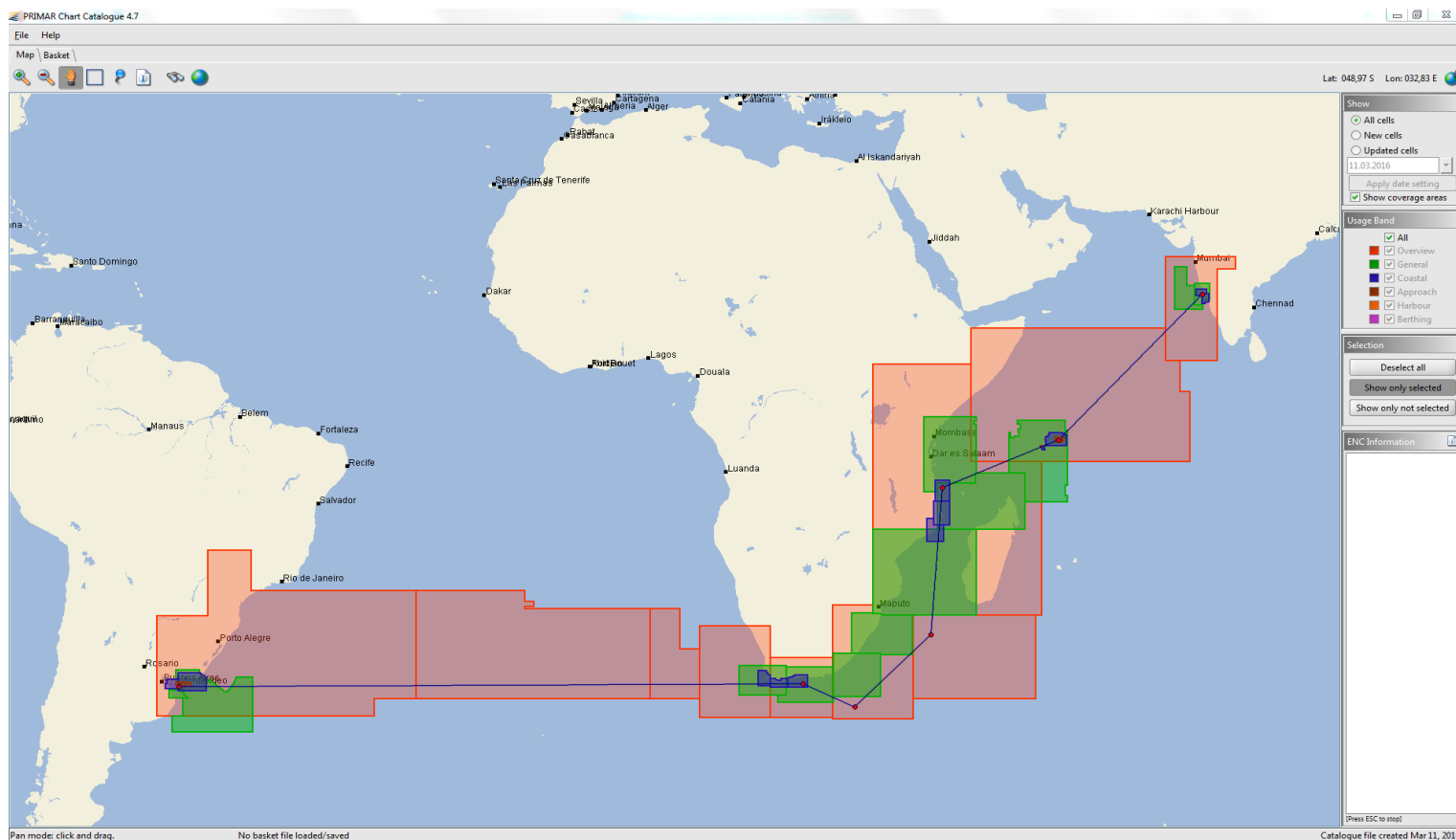
- Easy operation from the PRIMAR Chart Catalogue
  - Register and add users, Create ENC portfolios, Activate area of interest, View orders/reports, View licensee status, Download ENC updates and permit files etc.





# PRIMAR Navy / Governmental Supplier Services **PRIMAR**<sup>®</sup>

- Easy operation from the PRIMAR Chart Catalogue



## PRIMAR Navy / Governmental Agreements

- Signed between the NHS (operator of PRIMAR) and the Navy / Governmental Supplier.
- Invoicing conducted from NHS.
- For Navy, delayed reporting and anonymous users possible for security purposes.
- PRIMAR provides training for the Navy / Governmental Supplier.
- Documents:
  - Navy / Governmental Supplier Agreement
  - Schedule 1 ENC Pricing
  - Schedule 2 Sales report scheme and payment
  - Annex 1 ENC Service Description



**PRIMAR**<sup>®</sup>

# PRIMAR Web Chart Service



**Cooperating HO**

CHO

**Commercial distributor**

CD

## **Governmental WMS users**

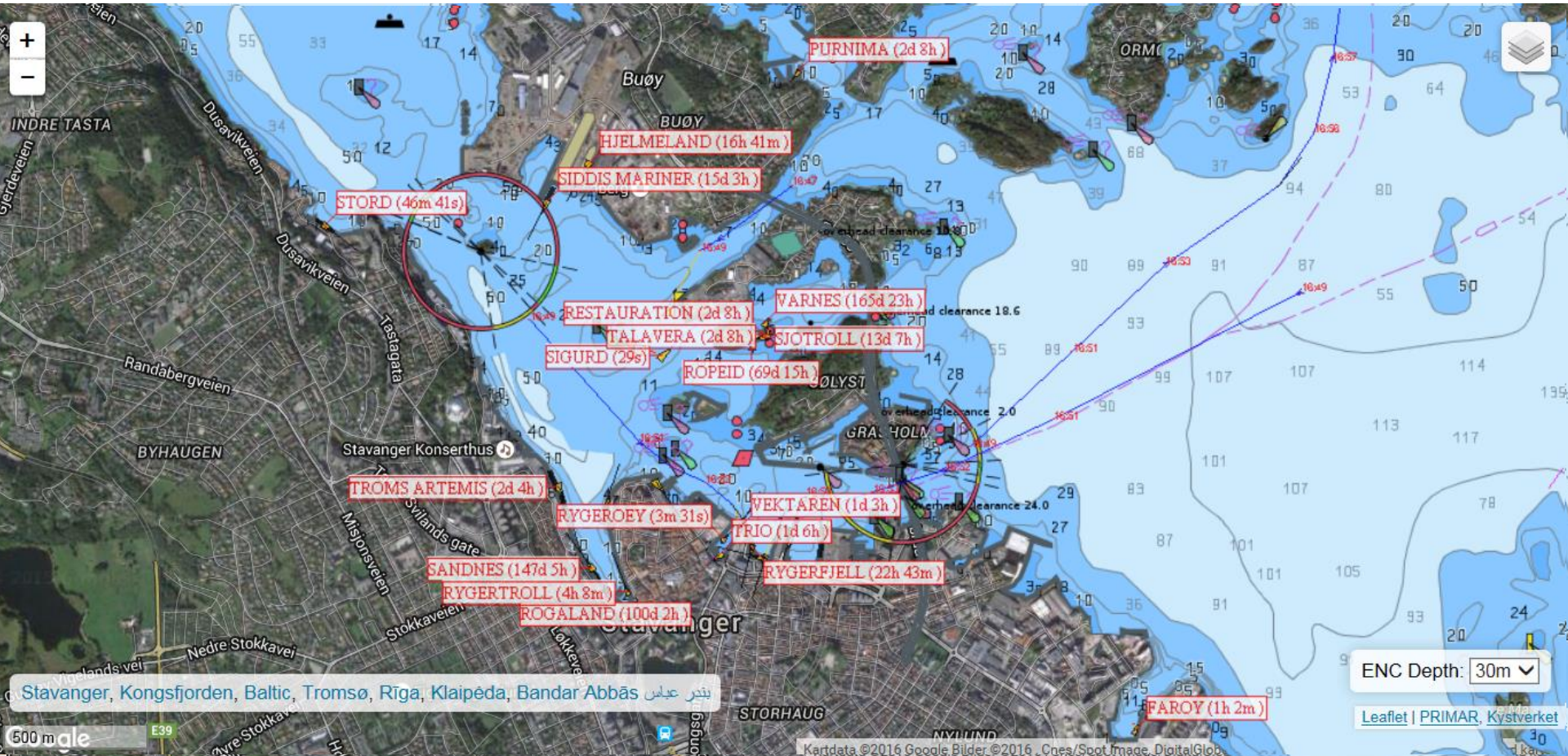
- National portals
- GIS users
- Maritime projects
- Coast Guard / Police / Navy
- Municipalities
- Coastal management
- Crises response

## **Commercial WMS users**

- Ship owners
- Ships
- GIS users
- Maritime industry
- Off shore activity
- Fishery



# PRIMAR Web Chart Service



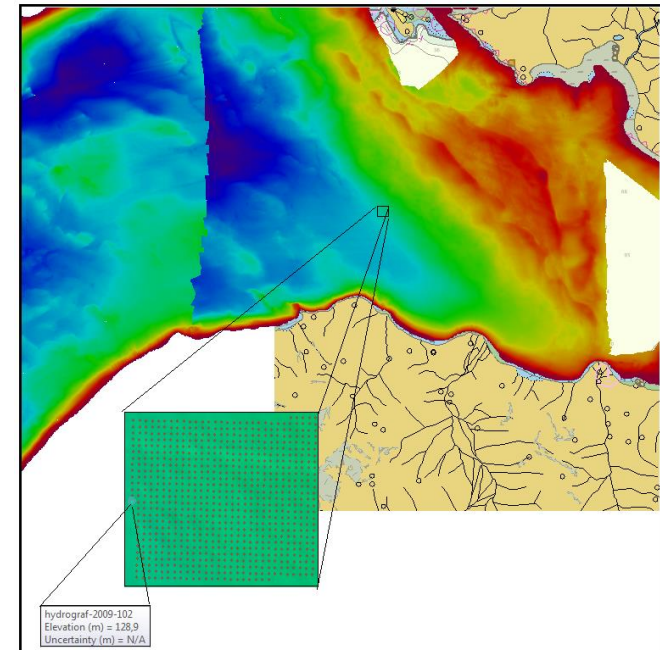
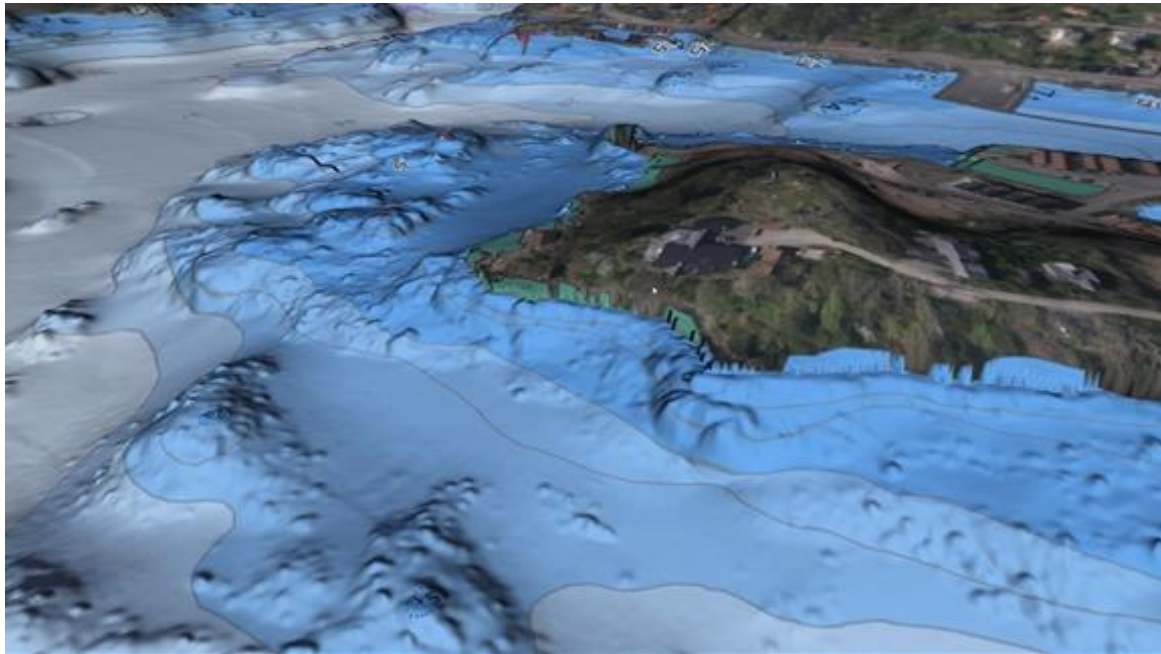
# PRIMAR S-102 project

- Expanding the PRIMAR ENC service with distribution, sales and customer support for bathymetric data on the S-102 format.
- Protecting the S-102 service with the new edition of IHO S-63 for access control and authentication.
- Allowing a Hydrographic Office to distribute its S-102 data to governmental and commercial end-users through PRIMAR.
- Development and testing of upload, validation, viewer, encryption and distribution modules ongoing.
- Cooperation with HOs, system manufacturers and end-users.



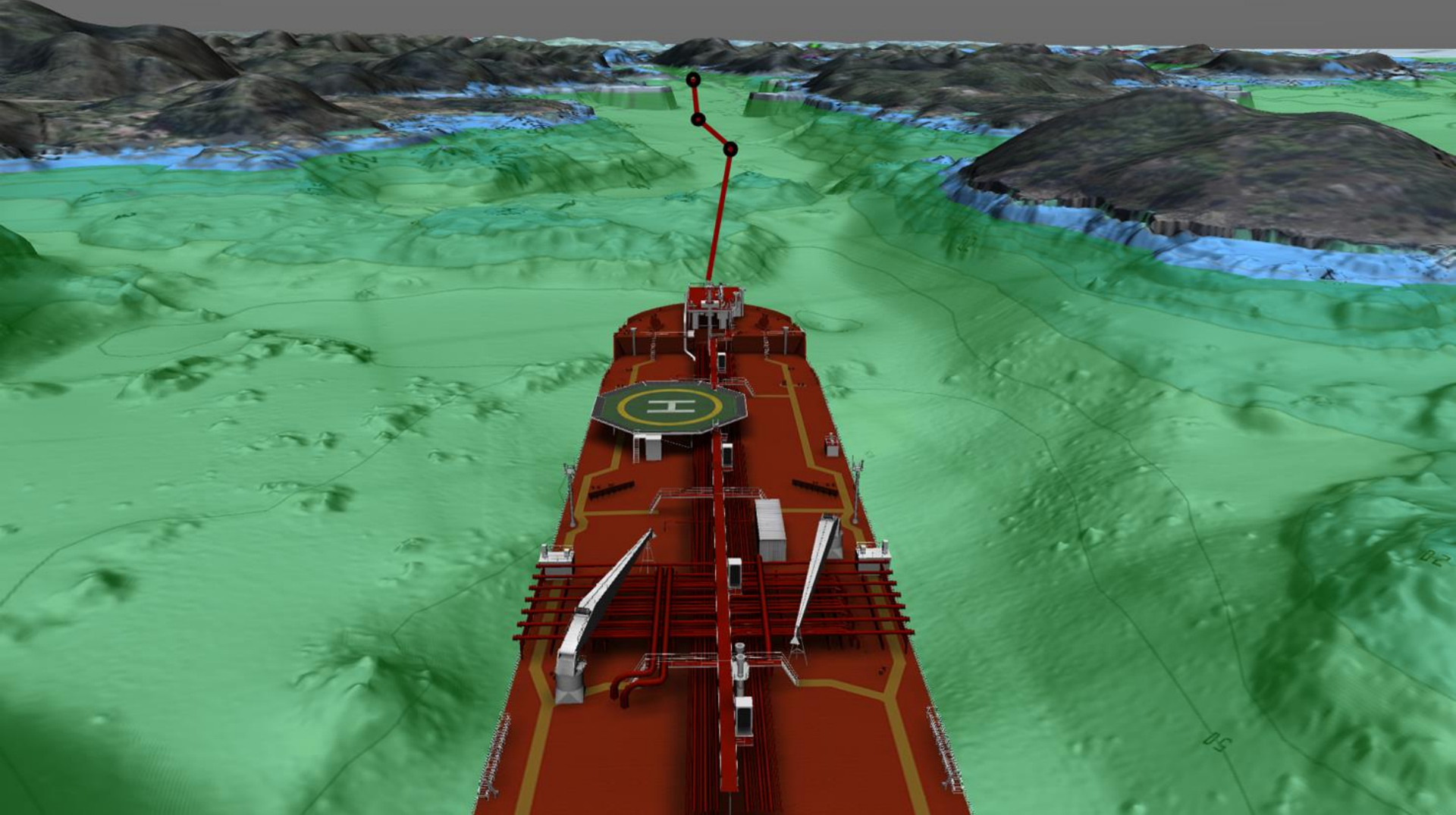
# S-102 Product

- **Main purpose:** To support safe navigation as a supplementary aid.
- **Product:** High resolution gridded bathymetry – bathymetric model.
- **Usage:** Navigational and planning purposes  
(safe depth, anchorage areas, Under Keel Clearance)
- **Innovative:** Allows ECDIS to calculate contour intervals on the fly.



# PRIMAR S-102 project

S-102 data in combination with ENC. End-user test system.







**PRIMAR**<sup>®</sup>

# Maritime Safety Circle

Through PRIMAR, all actors have access to the SAME CHARTING INFORMATION



## More information available from...

- [www.primar.org](http://www.primar.org)
- [PRIMAR Annual Report 2015](#)
  - Available at the IHO WENDWG 06 web page.
  - Further details on technological developments and ongoing activities in PRIMAR.
- [lauhan@kartverket.no](mailto:lauhan@kartverket.no)

Hans Chr. Lauritzen  
Director PRIMAR





**PRIMAR<sup>®</sup>**

**Thank you for your attention**  
**Questions?**

**[www.primar.org](http://www.primar.org)**