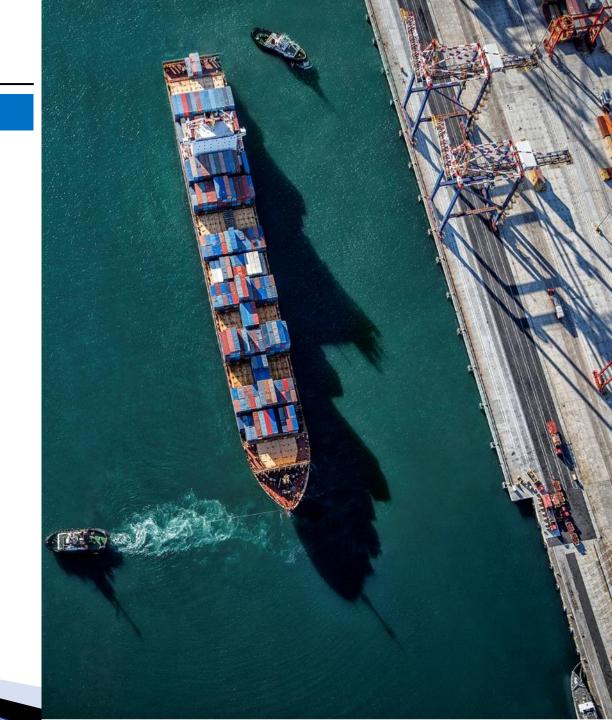


### **IC-ENC** Update

- Overview
- Core service summary
- Production Support (Learning Management System)
- Validation
- Distribution/Revenue Management
- S100 era services
  - Technical & Distribution progress
- Summary



#### Membership

- Welcome to new IC-ENC Members this year:
  - Umhvørvisstovan (Faroe Islands)
  - Institute of Hydrometeorology and Seismology of Montenegro
- As reported in the Lebanon
   National Report to MBSHC23,
   IC-ENC is working closely with LNHS with membership as part of their effort to produce and issued their first ENCs



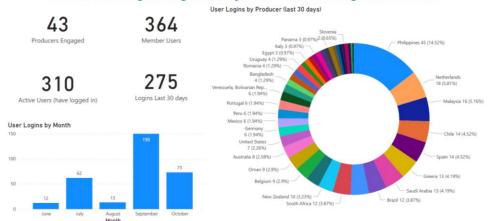
- "Member recommending Member"
- Now a total of 47 Members, ENC folio size:
   9463
- International validation team operate from each regional site

## New ENC "success measures"

| Ref | Title / Target / Measure  | Comments   |  |  |  |  |
|-----|---|--|--|--|--|--|
| T1  | <ul> <li>IC-ENC Validation time:</li> <li>Updates; 3 working days</li> <li>New Editions; 5 working days</li> <li>New Cells; 10 working days</li> </ul>  | A measure of our timeliness of service performance.  |  |  |  |  |
| T2  | IC-ENC Release; ENCs that have passed validation are released by IC-ENC within (an average of) 2 working days   | A measure of our timeliness of service performance.  |  |  |  |  |
| Т3  | Verification; 30 working days   | A measure of our timeliness of service performance.  |  |  |  |  |
| Q1  | ENC Integrity: 100% of ENCs released to IC-ENC VARs have their integrity maintained.  | A measure of our accuracy and safety of service  |  |  |  |  |
| Q2  | ENC Quality: "Urgent" ENC improvements identified by users are reviewed by IC-ENC within 2 working days, and IC-ENC revalidates/releases any resulting ENC changes within 2 working days. The other stages (HO action, VAR delivery to user) will be reported qualitatively | A measure of our timeliness, accuracy and safety of our service  |  |  |  |  |
| Q3  | Metafile Quality: (At least) 95% of exchange sets issued by IC-ENC have accurate & complete metafiles   | A measure of our accuracy of our service / reduction in defects.   |  |  |  |  |
| 01  | IC-ENC's annual Net Promoter Score will improve by at least 5% on the previous year. This will be conducted in February each year.  | Customer service and usability. To ensure IC-ENC services are based on meeting the requirements of the IC-ENC customer groups; Members, Value Added Resellers and Distribution Partners. |  |  |  |  |

#### Core service: Production Support

#### IC-ENC Learning Management System - Overall Usage @20211027

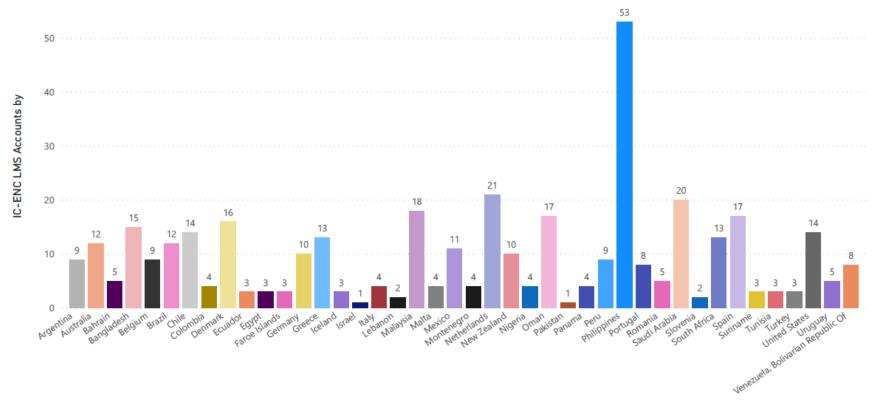




- Covid has forced us all online!
- Developed the supporting infrastructure (Learning Management System)
- Developed content and now delivering the service
- Forums/Q&A
- IC-ENC stakeholder groups: Technical Conference, Production Support Working Group

# Learning Management System – IC-encuptake by Members (395 active users)

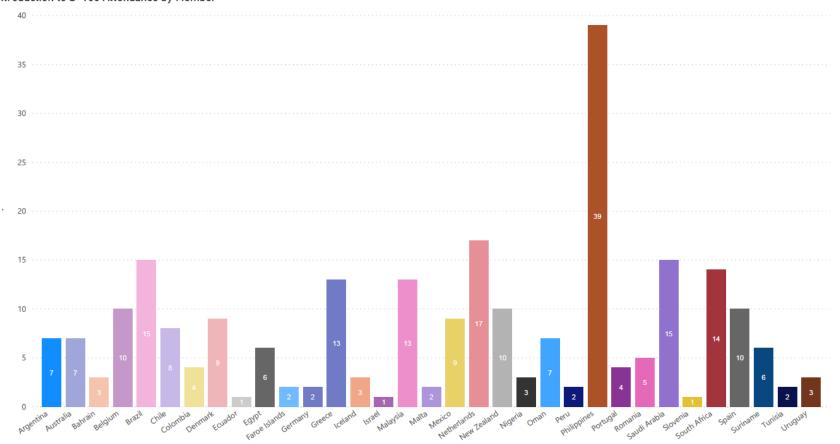
IC-ENC LMS Accounts by by User's Country



User's Country

# \$100 online training recipients (Q4/2021)

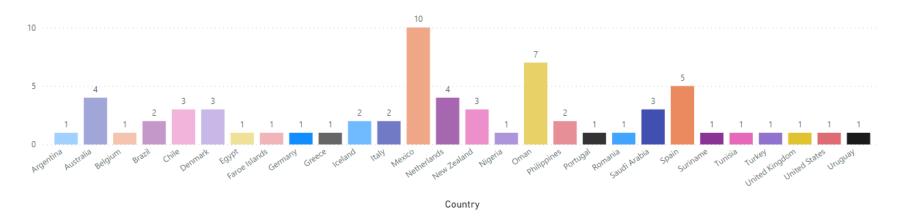
Introduction to S-100 Attendance by Member



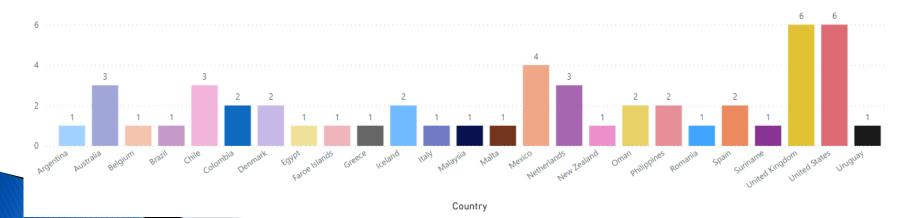
Attendance by Member

## Targeted TC sessions:

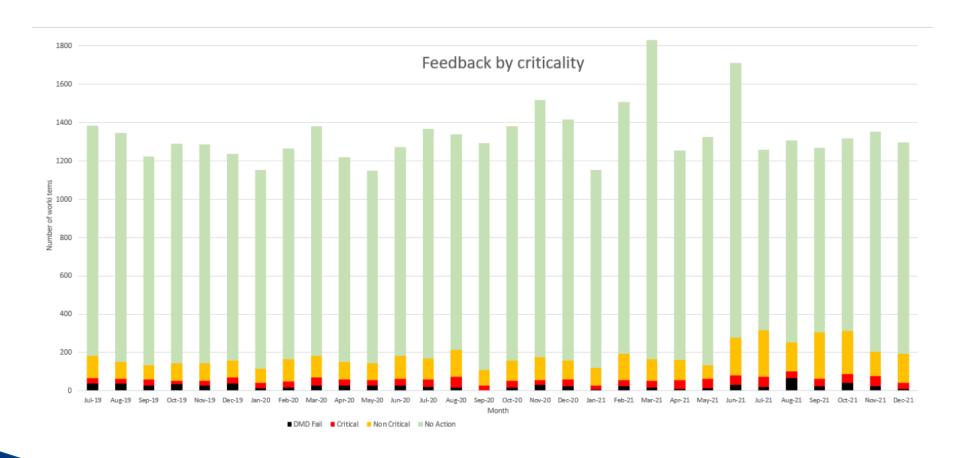
Technical Conference TC22\_1 - Industry Focus Attendance



Technical Conference TC22\_2 - ECDIS & HD ENCs Attendance

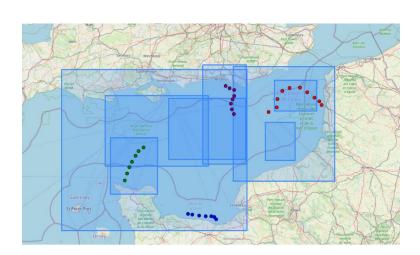


## **ENC Validation – feedback content**



#### Core services Distribution & Revenue Management: New developments:

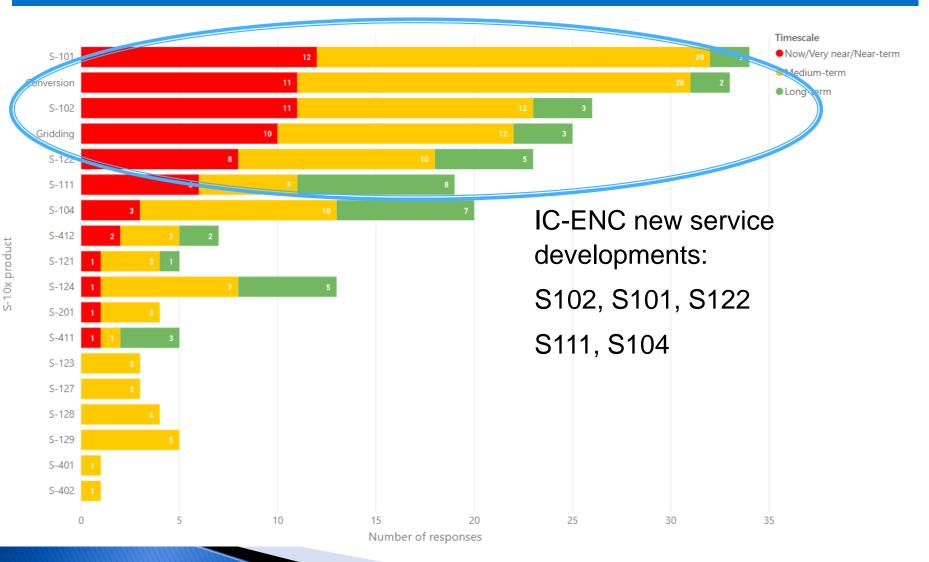
Sales audit tool, Analyses; AIS information, ENC catalogue, VAR sales reports



New Distribution route:
Appointment of "Distribution
Partners" in new distribution
chain to support digital
navigation of **non-ECDIS craft.** 

|    | Organisation                    | Expression of<br>Interest |  |  |  |
|----|---------------------------------|---------------------------|--|--|--|
| 1  | ChartWorld                      | ~                         |  |  |  |
| 2  | GEC s.r.l                       | ~                         |  |  |  |
| 3  | Imray Laurie Norie & Wilson Ltd | <b>*</b>                  |  |  |  |
| 4  | Magic Instinct                  | ~                         |  |  |  |
| 5  | Mapmedia                        | <b>✓</b>                  |  |  |  |
| 6  | Navico                          | ~                         |  |  |  |
| 7  | Navionics                       | ~                         |  |  |  |
| 8  | Navtor                          | ~                         |  |  |  |
| 9  | OneOcean                        | <b>*</b>                  |  |  |  |
| 10 | Orca                            | ~                         |  |  |  |
| 11 | Renate Rosner Consult S.L       | <b>~</b>                  |  |  |  |
| 12 | Savvy Navvy                     | ~                         |  |  |  |
| 13 | SeaPilot                        | ~                         |  |  |  |
| 14 | Witherby Publishing Group       | ~                         |  |  |  |
| 15 | Sii Tech                        | ~                         |  |  |  |

#### New developments: S1XX services – Member priorities





#### S-102 Service

#### S-102 member production plans

| S-102<br>Production<br>Plans | Now/very<br>near | Near-<br>term | Medium-<br>term | Long-term | Unknown | N/A |
|------------------------------|------------------|---------------|-----------------|-----------|---------|-----|
| Pialis                       | 1                | 10            | 12              | 3         | 8       | 1   |

### Work completed

- S102 Ingest & Registration Checks (Validation tests 43)
- S-102 Knowledgebase created to include registration checks
- Product Profile
- S-102 Working Practice documentation (quality management)
- S100 Exchange Set / S102 release capability
- Subject of Technical Conference demonstration in February (60 representatives from IC-ENC Members).



#### S-122 Service

#### ▶ S-122:

| S-122<br>Production | Now/very<br>near | Near-term | Medium–<br>term | Long-term | Unknown |
|---------------------|------------------|-----------|-----------------|-----------|---------|
|                     | 1                | 7         | 10              | 5         | 12      |

#### Progress

- S-122 Registration Checks (47)
- Draft S-122 Working Practice
- Assessment of trial S-122 data

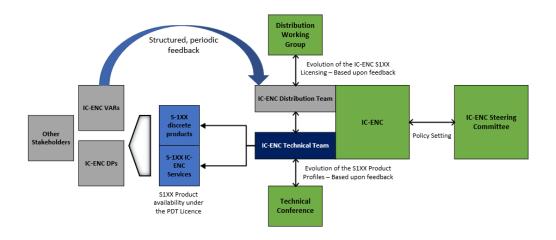


Fig 1: S-122 dataset displayed in NL S-100 Viewer

- Work in progress via Technical Conference
  - Draft Service Description; consistency checks between S-122 and S-57/S-101; Draft Metadata Template; Draft Product Profile; Further DMD enhancement work to include ingest of .GML files

## S-100 era licensing - in development





|                           | Existing S57 ENC ECDIS  Existing S57 Non ECDIS         | S100 SAP  | S100 – interim policies (in development)                                |   |                  |                  |                  | PRIMAR<br>approach       |             |
|---------------------------|--|---|---|---|------------------|------------------|------------------|--------------------------|-------------|
| Feature                   |  |   | technical<br>changes  | S-101   | S-102            | S-104            | S-111            | S122                     | Canada S102 |
| Sales Unit                | ENC  | Folio   | n/a   |   |                  |                  |                  |                          | File        |
| Price                     | Set by<br>Member                                       | Set by<br>Member                                      | Set by<br>Member  | Set by<br>Member  | Set by<br>Member | Set by<br>Member | Set by<br>Member | Set by<br>Member         |             |
| IC-ENC fixed fee          | Yes  | Yes   | Yes   | Yes   | Yes              | Yes              | Yes              | Yes                      |             |
| 1 month                   | Х  | Х   | ~   |   |                  |                  |                  |                          | Х           |
| 2 months                  | Х  | X   | ~   |   |                  |                  |                  |                          | Х           |
| 3 months                  | ~  | X   | ~   | ~   | ~                | ~                | ~                | ~                        | ~           |
| 4 months                  |  | X   | ~   |   |                  |                  |                  |                          | X           |
| 5 months                  |  | X   | ~   |   |                  |                  |                  |                          | X           |
| 6 months                  | ~  | X   | ~   | ~   | ~                | ~                | ~                | ~                        | ~           |
| 7 months                  | ~  | Х   | ~   |   |                  |                  |                  |                          | Х           |
| 8 months                  | ~  | X   | ~   |   |                  |                  |                  |                          | Х           |
| 9 months                  | ~  | X   | ~   | ~   | ~                | ~                | ~                | ~                        | ~           |
| 10 months                 | ~  | X   | ~   |   |                  |                  |                  |                          | Х           |
| 11 months                 | ~  | X   | ~   |   |                  |                  |                  |                          | X           |
| 12 months                 | ~  | ~   | ~   | ~   | ~                | ~                | ~                | ~                        | ~           |
| PAYS (3 months)           | ~  | X   | ~   |   |                  |                  |                  |                          | Х           |
| Demo (12 months)          | ~  | Х   | ~   |   |                  |                  |                  |                          | ~           |
| R&D (12 months)           | ~  | X   | ~   | PDT   | PDT              | PDT              | PDT              | PDT                      | ~           |
| Training (12 months)      | ~  | X   | ~   |   |                  |                  |                  |                          | ?           |
| Trial (3 months, no cost) | ~  | X   | ~   |   |                  |                  |                  |                          | ~           |
| Sales Reporting           | 24 hrs   | Monthly   | n/a   |   |                  |                  |                  |                          | ?           |
| Comments                  | Maintained<br>with PRIMAR<br>under Joint<br>RENC Model | Note, this<br>option is not<br>supported by<br>PRIMAR | To build in the<br>flexibility now<br>for future<br>policy<br>decisions | The policies will be developed through the DWG and the iterated as experience grows via the PDT license |                  |                  |                  | Included for information |             |

#### **Summary**

- MBSHC: Welcome to Montenegro & Lebanon ☺
- New ENC service "success measures" timeliness & quality
  - New "non-ECDIS" Distribution service has launched
- Evolution of IC-ENC services for the S100 era
  - Large range of stakeholders different priorities (and....we have Members still grappling with the challenges of producing their first ENCs...)
- Member stakeholder groups are very active; Technical Conference,
   Distribution Working Group, new Production Support Working Group...
   feeding up to the Steering Committee

