

SAIHC

May 2022

IC-ENC Update

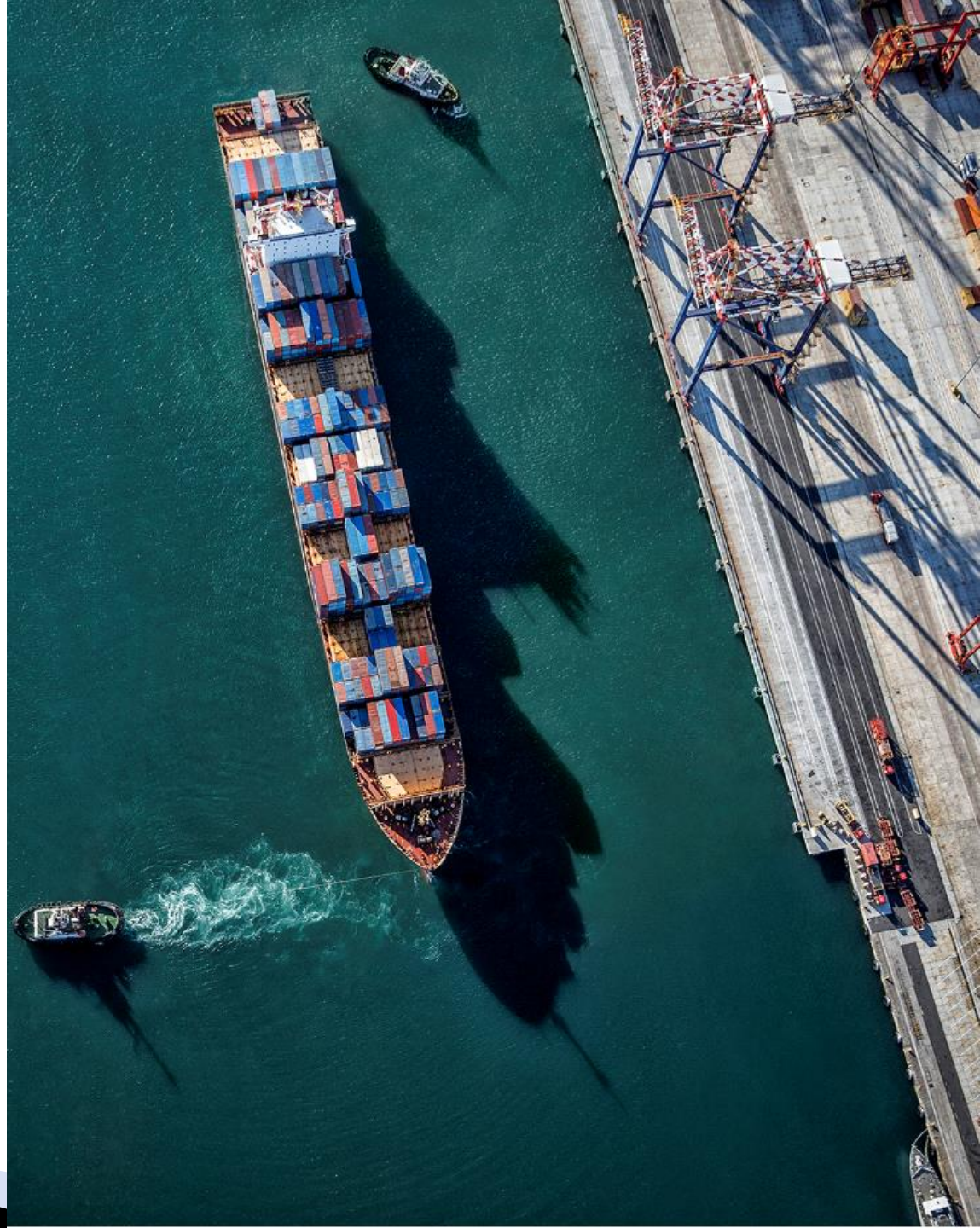
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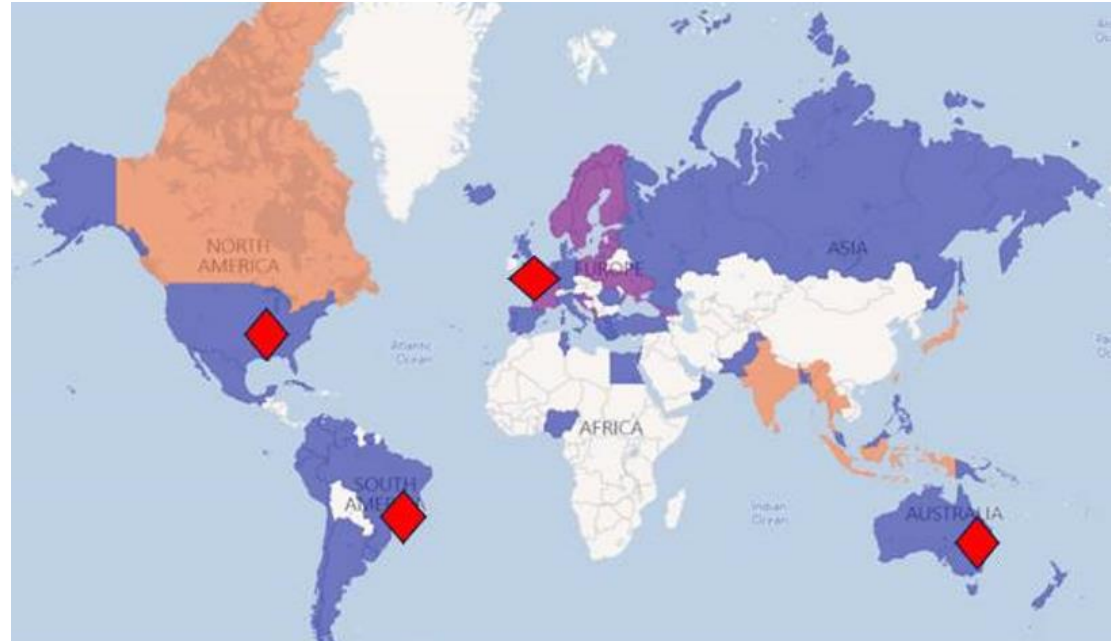
IC-ENC Update

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



Operating Structure

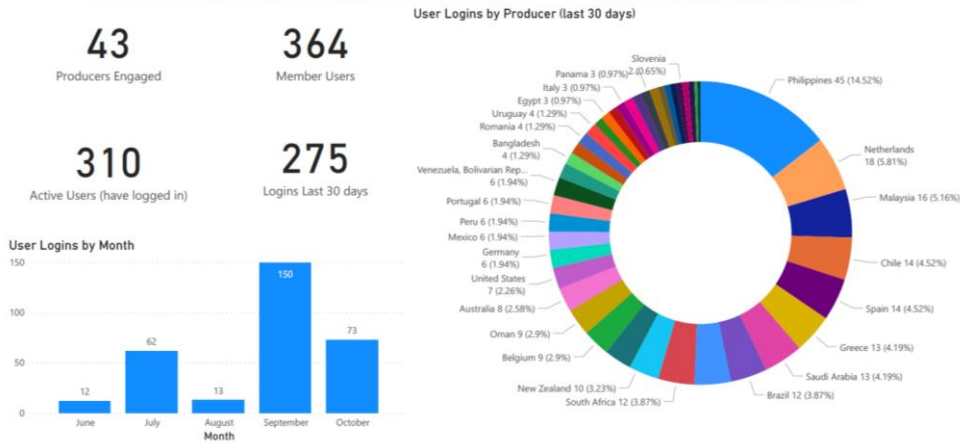
- Welcome to new IC-ENC Members this year:
 - **Faroe Islands**
 - **Montenegro**
 - **Lebanon**
- Now a total of 48 Members
- “Member recommending Member”



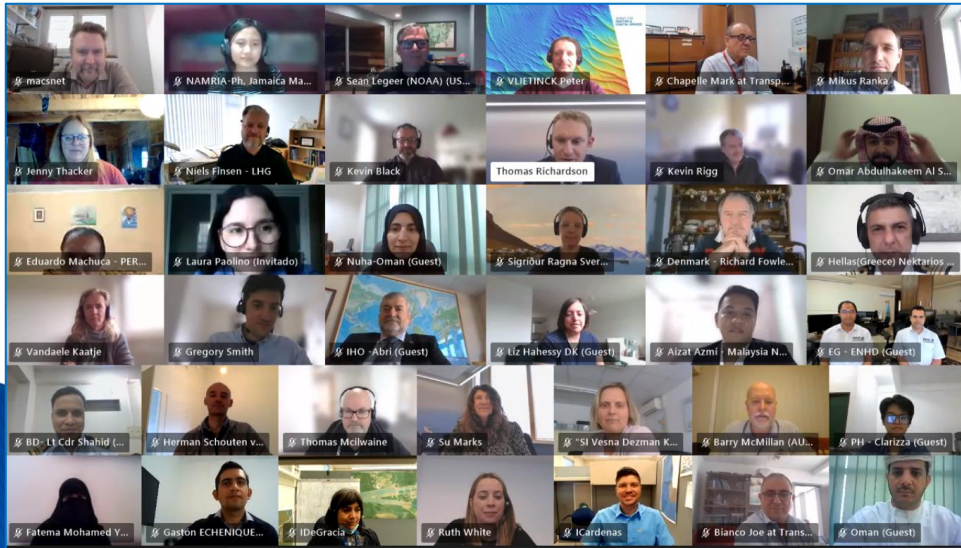
- Continued operation of four office sites (UK, Aus, Bra, US)
 - International validation team operate from each regional site
 - Distribution / Finances / Management concentrated at UK Headquarters.

Core service: Production Support

IC-ENC Learning Management System - Overall Usage @20211027

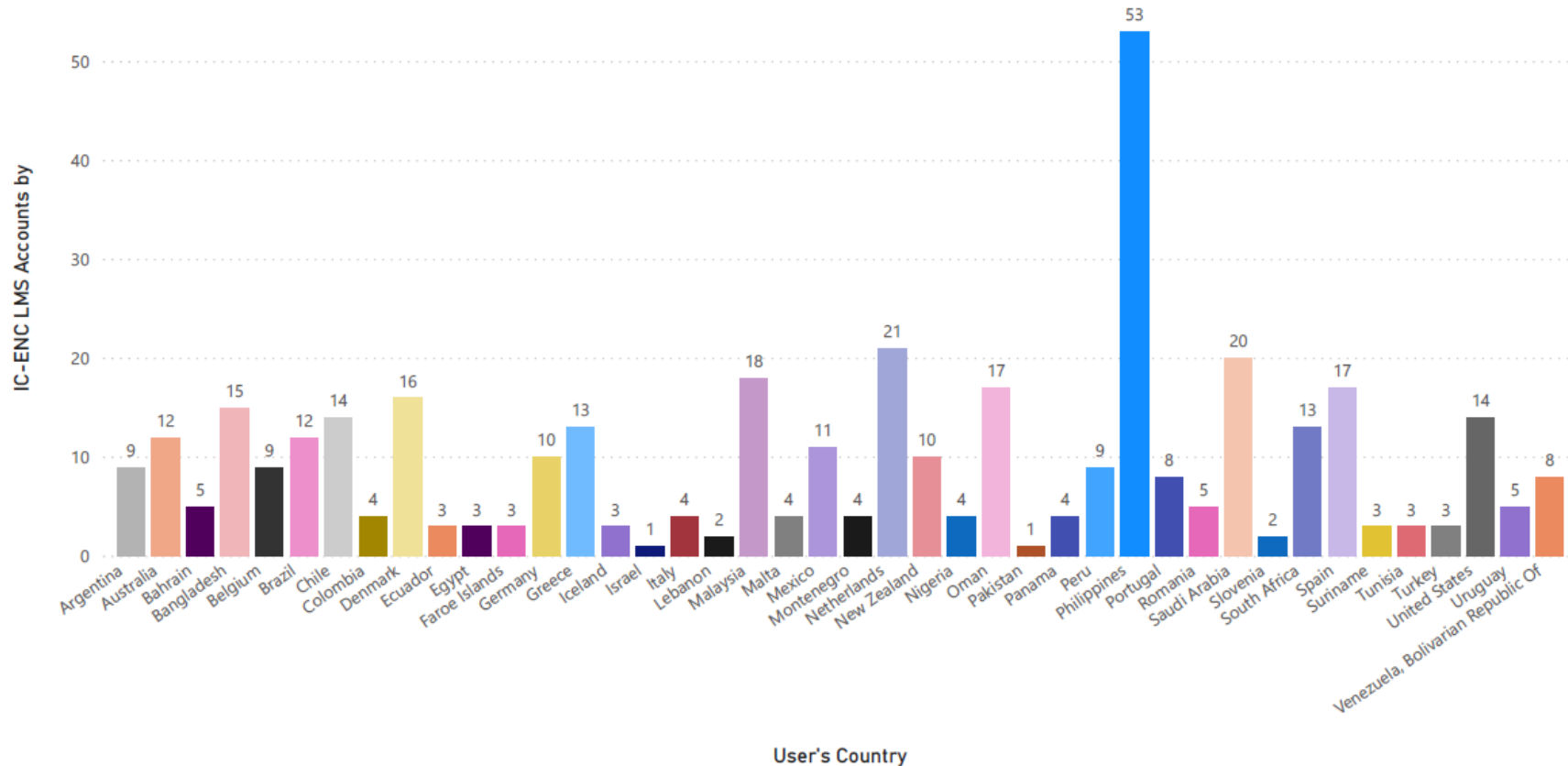


- Covid has forced us all online!
- Developed the supporting infrastructure (Learning Management System)
- Developed content and now delivering the service
- Forums/Q&A
- **Production Support Working Group**



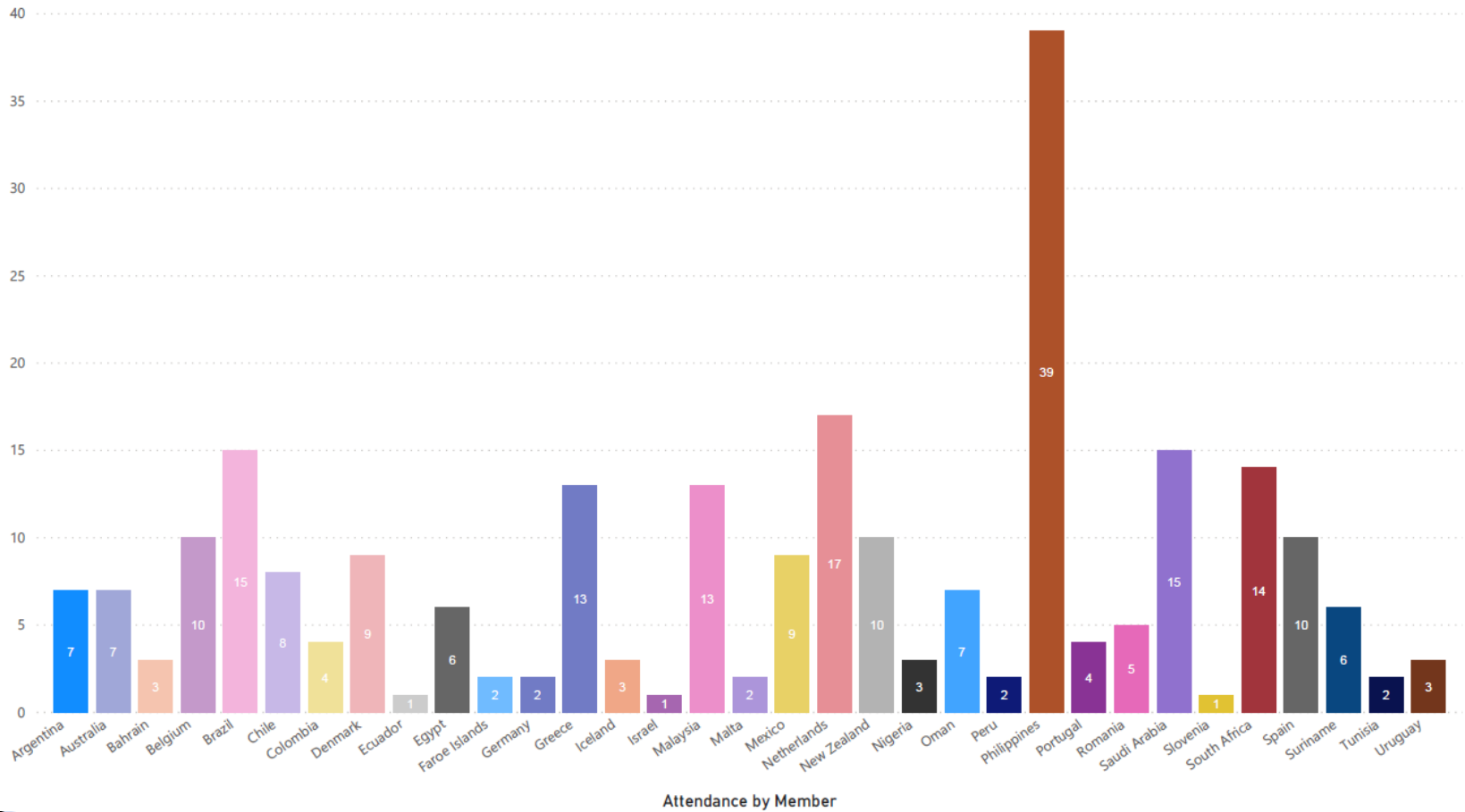
Learning Management System – ic-enc uptake by Members (395 active users)

IC-ENC LMS Accounts by User's Country

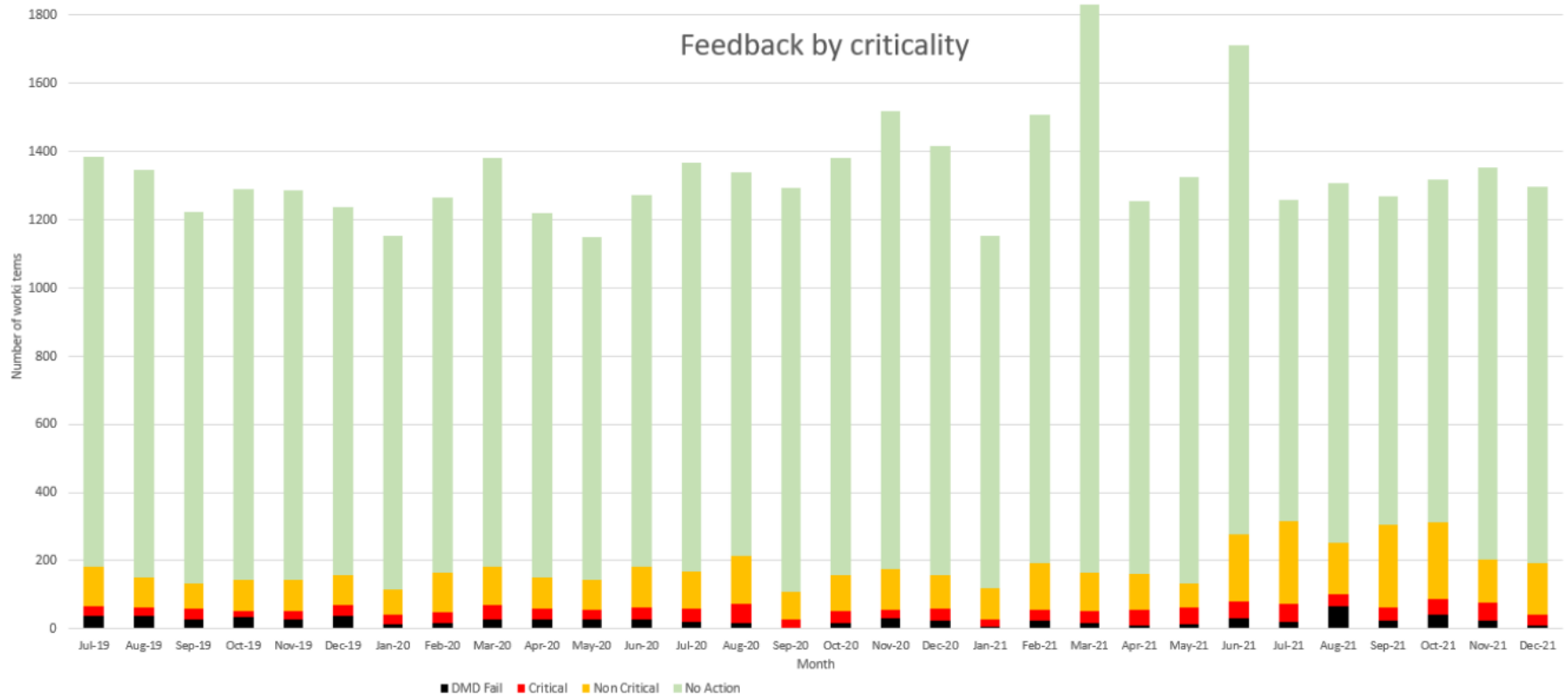


S100 online training recipients (Q4/2021)

Introduction to S-100 Attendance by Member

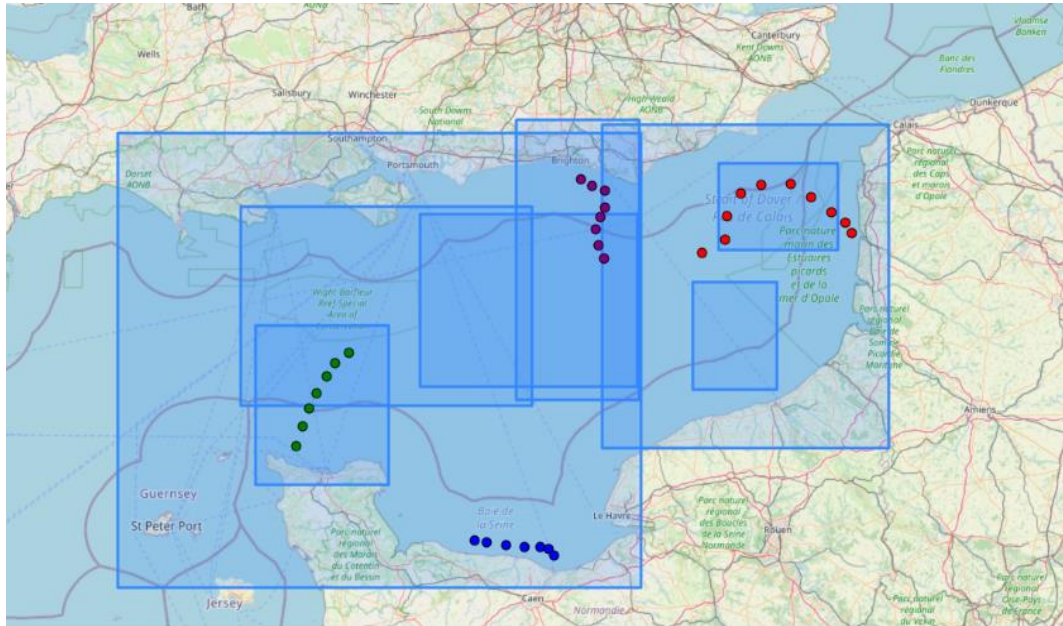


ENC Validation – feedback content



- To ECDIS vessels:
 - Via a network of “Value Added Resellers”
 - Sales terms and conditions set by IC-ENC Members
 - Stringent reporting requirement
- New non-core (opt in) service: Non-ECDIS distribution
- IC-ENC Distribution Working Group – panel of IC-ENC Members advising on distribution policies etc

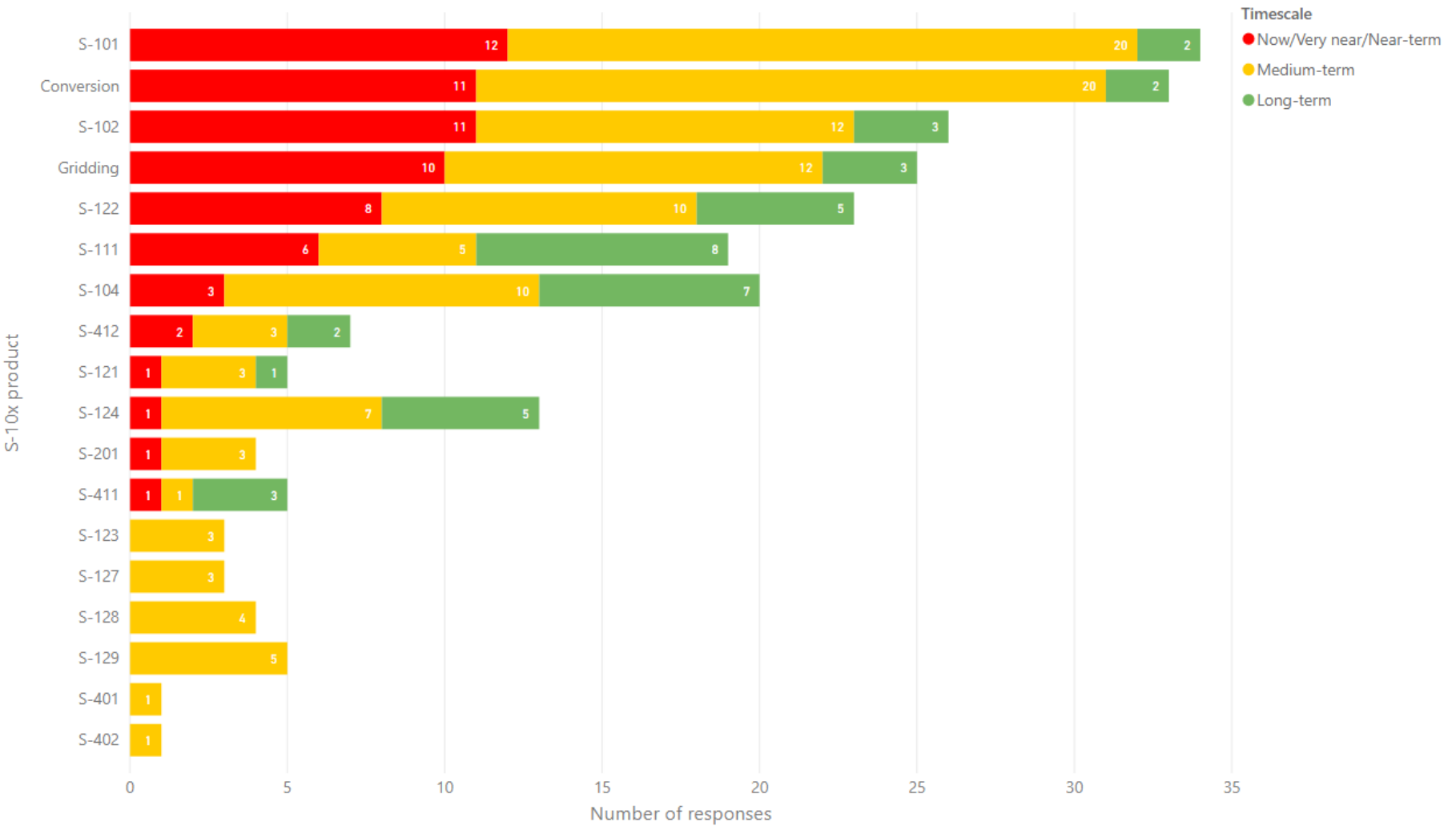
Core service Distribution: New developments: ENC Sales Audit tool



- Analyses:
 - AIS information
 - ENC catalogue
 - VAR sales reports
- Revenue to Members: over USD51M annually.

- Important additional assurance to IC-ENC Members regarding their financial interests / IC-ENC oversight of Value Added Resellers.

New developments: S1XX services – Member priorities



▶ S-102 member production plans

S-102 Production Plans	Now/very near	Near-term	Medium-term	Long-term	Unknown	N/A
	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 yesterday (60 representatives from IC-ENC Members).

▶ S-122:

S-122 Production	Now/very near	Near-term	Medium-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

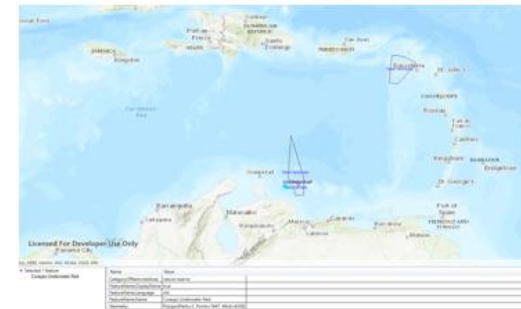


Fig 1: S-122 dataset displayed in NL S-100 Viewer

▶ 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-102 Product Profile – example to illustrate the principle

12) VerticalAndSoundingDatum [S-102 PS - 12.7.4]

S-102 Product Specification, Edition 2.0.0, Section 12.7.4, shows the allowable vertical and sounding datums, for the mandatory attributes in S-102:

Role Name	Name	Description	Code	Type	Remarks
Value	approximateMeanLowerLowWater		15		
Value	meanHighWater		16		(MHW)
Value	meanHighWaterSprings		17		(MHWS)
Value	highWater		18		(HW)
Value	approximateMeanSeaLevel		19		
Value	highWaterSprings		20		
Value	meanHigherHighWater		21		(MHHW)
Value	equinoctialSpringLowWater		22		
Value	lowestAstronomicalTide		23		(LAT)
Value	localDatum		24		
Value	internationalGreatLakesDatum1985		25		
Value	meanWaterLevel		26		
Value	lowerLowWaterLargeTide		27		
Value	higherHighWaterLargeTide		28		
Value	nearlyHighestHighWater		29		
Value	highestAstronomicalTide		30		(HAT)

From the Product Specification, the S-102 Product Profile is populated, as shown in the extract below for vertical datum:

* IC-ENC S-102 Profile (S-102 2.0.0 - October 2019)							
* S-102 Reference	Recommendation	Requirement	In S-101	In S-102 2.1.0	Rationale	Assumptions	Conformance
12.7.4 - VerticalAndSoundingDatum	RENC recommendation - S-102 datasets shall use the same or an equivalent vertical datum as the corresponding ENC. (both S-57 and S-101)	As S-101 PS 12.1.2.4 (Enumeration values 1-30)	Yes - additional value	Yes - same	Vertical Datum of the entire dataset and Sounding Datum of the entire dataset. As PS (S-101 shows additional balticSeaChartDatum2000 code 44)	S-102 will be used in conjunction with ENC data (S-57 or S-101) and therefore should reference the same vertical datum to ensure depths are consistent.	Harmony check Vertical Datum

IC-ENC Service developments

- Production Support
- Quality Assurance / Validation
- Distribution & Revenue Management
- 20 years of ENC services – we're now adapting/improving these services for the S100-era...
 - Evolution to IC-ENC governance and technology in response to Members' requirements for future S100 services
 - Large range of stakeholders – different priorities (and....we have Members still grappling with the challenges of producing their first ENCs...)

Questions / Discussion

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