Current Shom roadmap for S-100
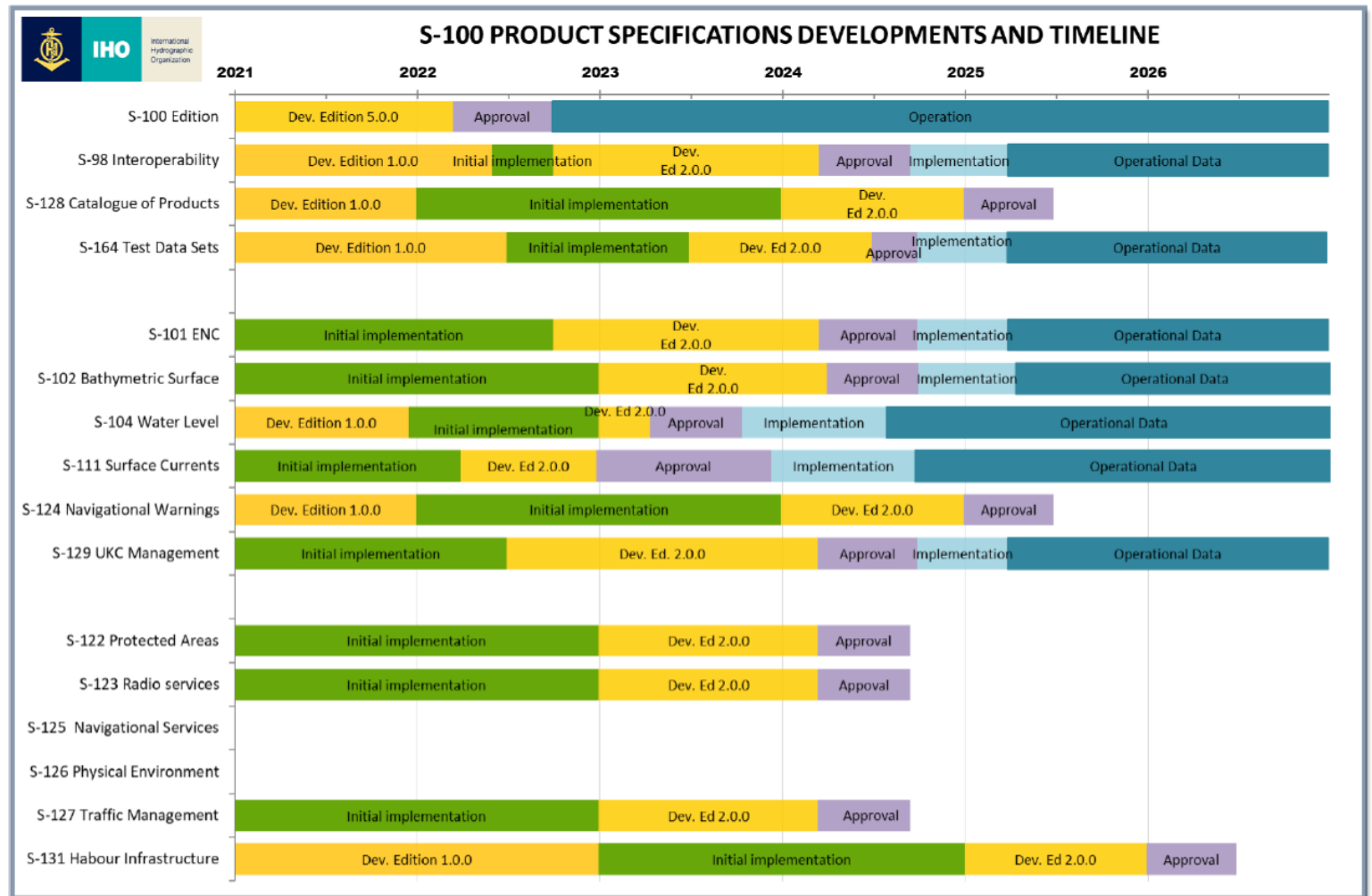
[France, Shom] – Yves Le Franc

MACHC – Webinar on S-100

November 10, 2021

IHO S-100 Roadmap

- **S-101 and S-98 on interoperability in ECDIS ready for operational data in 2025**

- **Implementation priorities to ECDIS Route Monitoring S-1xx Products**

S-100 PRODUCT SPECIFICATIONS DEVELOPMENTS AND TIMELINE

S-101 added value compared to S-57

- **The foundation layer interoperable with other S-100 products**

    e-navigation voyage planning and route monitoring

- **Machine readable (additional objects, attributes, symbols,…)**

- **Reinforced cybersecurity and data integrity**

    in the context of reinforced consideration by IMO for cybersecurity

- **Technical improvements (better text positioning, remove of overuse of caution areas, new objects such AIS, highlight of updates, lights description…)**

    Hopes for the automated paper chart production
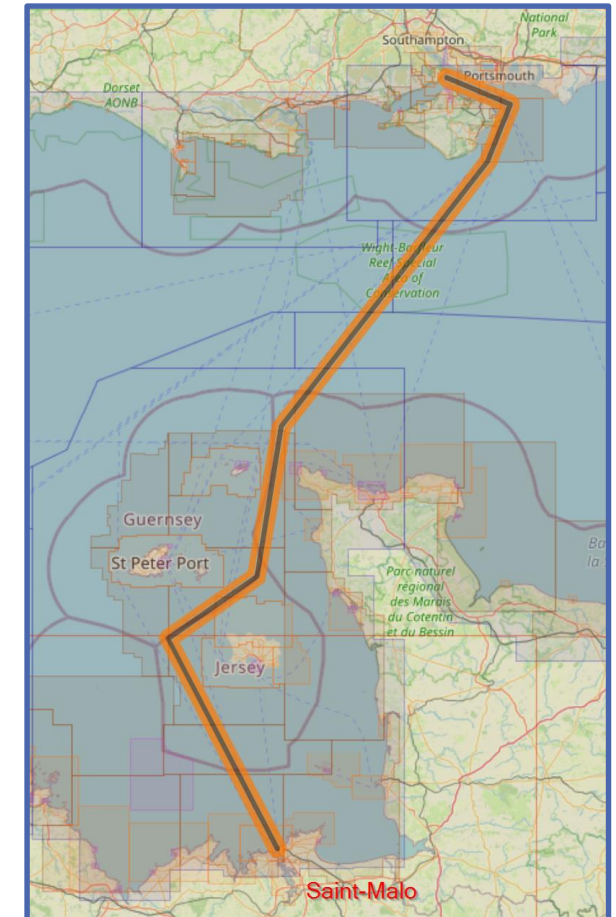
Transitioning to S-100 in Shom – S-100 ECDIS

- **The conversion in Shom will be synchronized with the IMO S-100 ECDIS transition schedule**

    No significant use of S-100 based products without S-100 ECDIS under SOLAS and IMO carriage requirements

<u>Actions:</u>

- Shom supports HSSC for the revision of the IMO ECDIS Guidance & ECDIS Performance standards (resolution MSC.232(82)) with participation of CIRM, IEC, Intertanko

- UKHO-Shom S-100 ECDIS Project in the Channel (dual fuel, schemes)

- Shom S-1xx experiments (Shom *Innovation Lab*)

Transitioning to S-100 in Shom – S-101

- **The conversion to S-101 will be voluntaristic and limited in time**

    Around FR 850 S-57 cells to convert
    FR S-101 ENCs will become
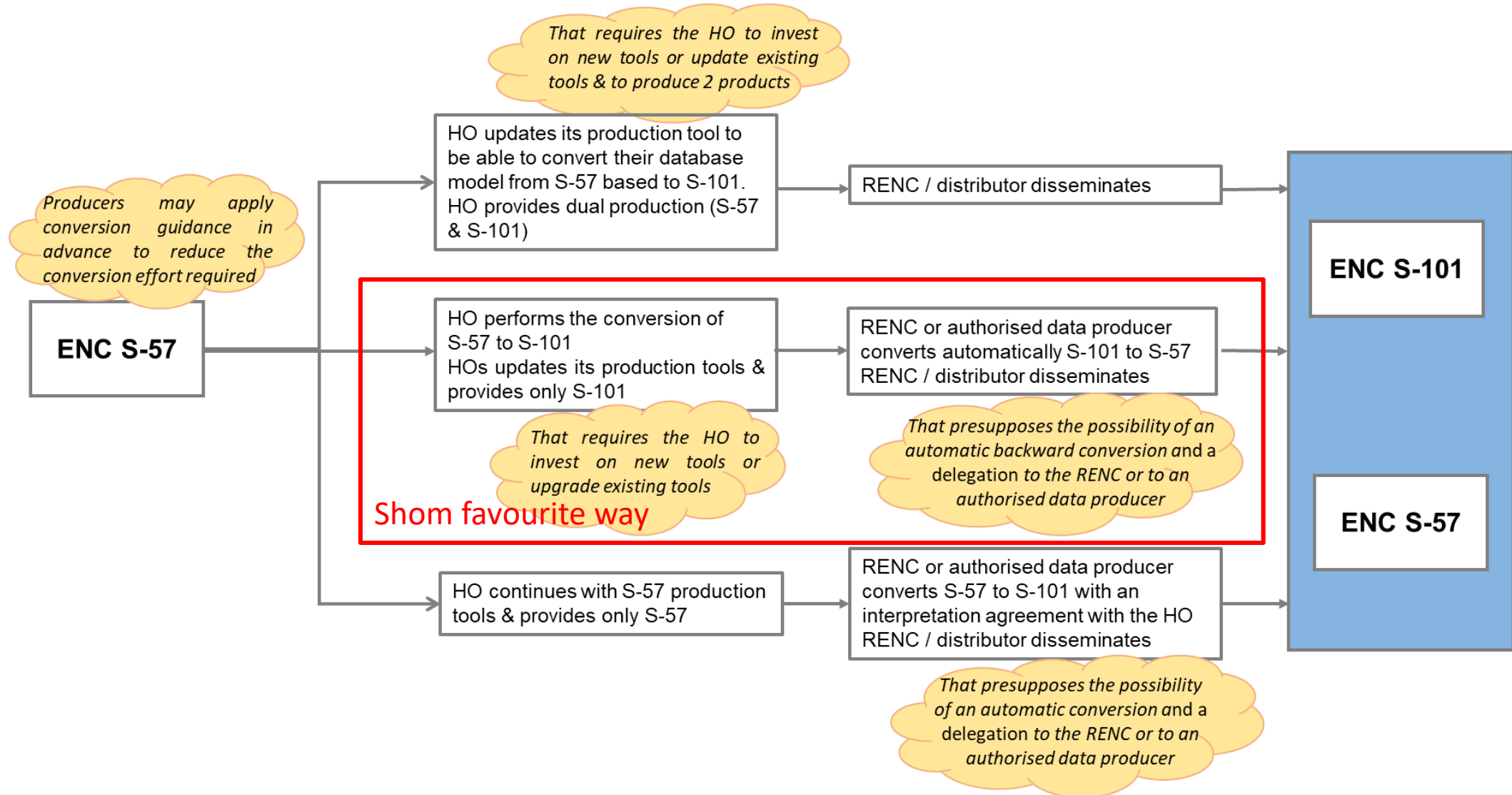   - o the reference coverage (and no longer the FR S-57 ENCs)
    - o the foundation layer for other S-1xx products (S-98 on interoperability)
    - o The source for paper chart

Actions :

- First version of the Shom roadmap S-100 approved in July 2021

- Dedicated Shom team for the transition to S-101

- Contribution to the international effort (IHO WGs, IHO Singapore Lab, RENC PRIMAR, industry, etc.)

Transitioning to S-100 - Dual Fuel – Ways for HOs

That requires the HO to invest on new tools or update existing tools & to produce 2 products

Producers may apply conversion guidance in advance to reduce the conversion effort required

ENC S-57

HO updates its production tool to be able to convert their database model from S-57 based to S-101. HO provides dual production (S-57 & S-101)

RENC / distributor disseminates

HO performs the conversion of S-57 to S-101
HOs updates its production tools & provides only S-101

RENC or authorised data producer converts automatically S-101 to S-57
RENC / distributor disseminates

That requires the HO to invest on new tools or upgrade existing tools

Shom favourite way

That presupposes the possibility of an automatic backward conversion and a delegation to the RENC or to an authorised data producer

HO continues with S-57 production tools & provides only S-57

RENC or authorised data producer converts S-57 to S-101 with an interpretation agreement with the HO
RENC / distributor disseminates

That presupposes the possibility of an automatic conversion and a delegation to the RENC or to an authorised data producer

ENC S-101

ENC S-57

Transitioning to S-100 in Shom - Dual Fuel

- **Mastering the conversions S-57 to S-101 and vice versa : a key factor of success**

- **Shom intends to delegate to a third party (RENC PRIMAR) the availability of the FR S-57 ENCs**
  When the S-101 ENCs coverage is complete, FR S-57 will become a "by-product"
  PRIMAR would produce and maintain the FR S-57 ENCs

Actions:
- International effort (HSSC, industry)
- PRIMAR Development Project on conversions (S-57 to S-101 and vice versa) with the participation of Shom

Transitioning to S-100 in Shom – Security

The Cyber issue is essential in today's world and for Shom the SENC delivery option has no reason to exist today

> S-100 induces progress in data integrity and security with the IHO Data Protection Scheme (S-100 Part 15)
>
> The limitations of ECDIS machines are no longer an issue
>
> Let's not diminish the scope of S-100 by keeping the SENC delivery option

Action:

- HSS13 discussed the SENC delivery issue for the sake of cyber security and a work is handled by the S100 WG

Transitioning to S-100 in Shom - Cooperation

- **Shom promotes capacity building**

    At the RHC level, organisation of S-100 seminars (with participation of RENCs as instance PRIMAR)

    Training courses set up by the RENCs specific to the subject S-100/S-101

    Opportunity to develop distant training on S-100 issues via the establishment of IHO E-learning platform by the ROK (to be operational in 2022)

Merci!