Report of S-125 Development

14 Sep. 2022

Sewoong OH (KRISO)
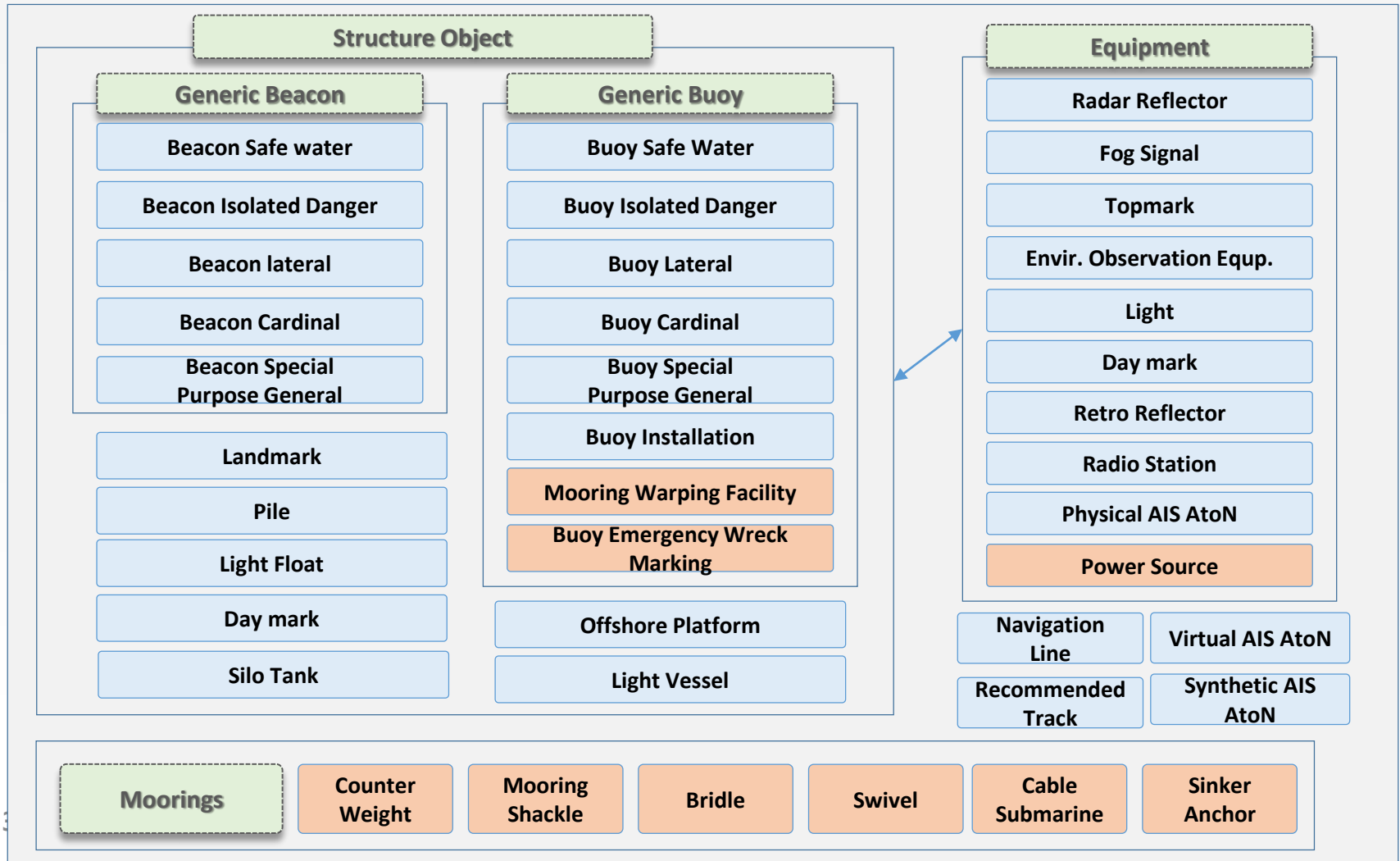
01 S-125 development

- **Related meetings**
  - ARM15 (11 ~ 25 March, 2022)
    - Application schema was agreed for testing purpose
    - Very draft main document was introduced
  - NIPWG VTC01 in 2022 (22 March, 2022)
    - Vision and Aim was introduced to the meeting
    - Explain the S-125 application schema
    - Comment on changing the data type of change details (from enumeration to codelist)
    - Proposed symbol on Aton changes
  - NIPWG VTC02 in 2022 (7-8 June, 2022)
    - Report the name change form MNS to Marine Aton
    - Joint IALA/IHO Workshop on S-100/S-200 development and portrayal
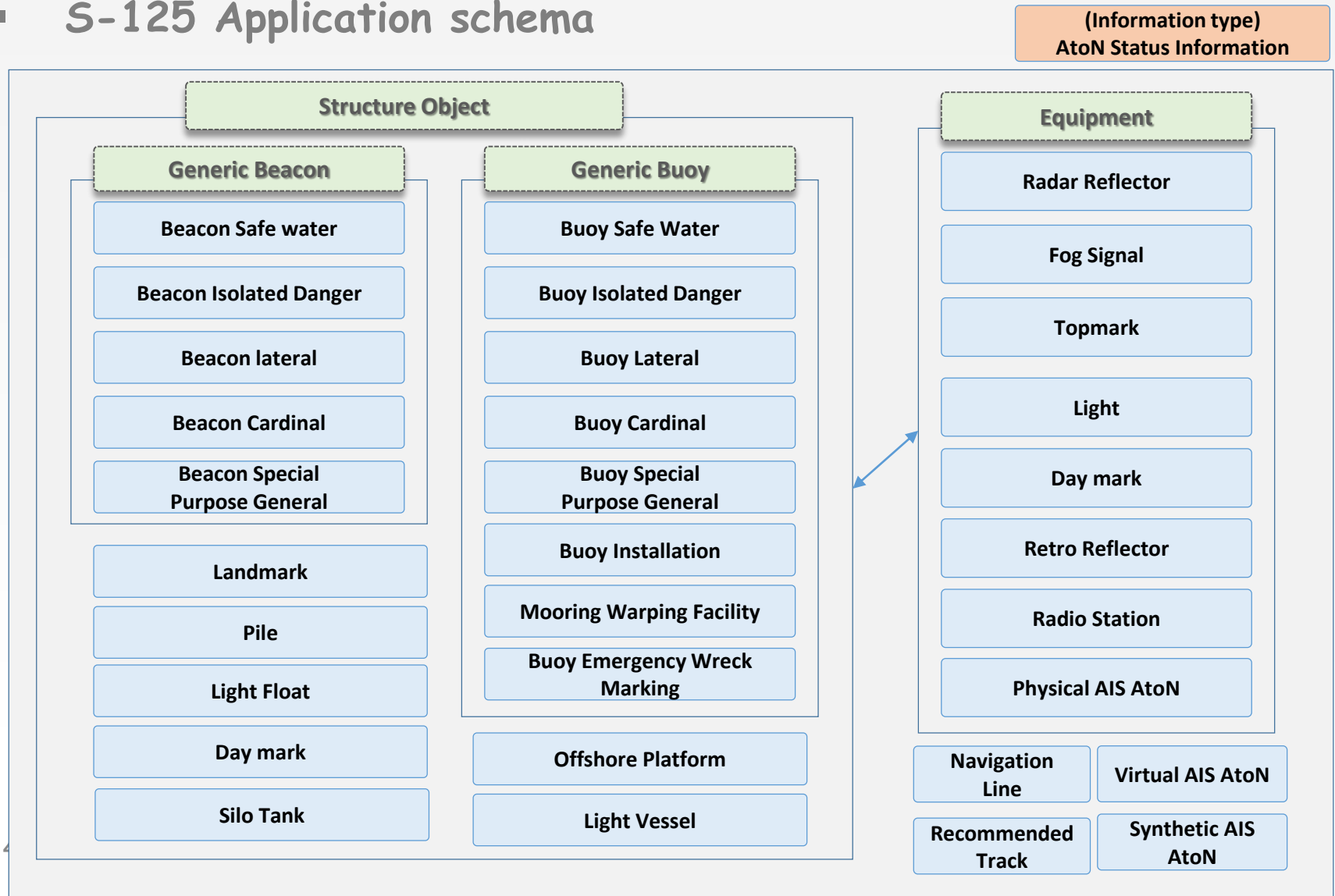   - Data flow of S-201/S-125/S-124

- ## S-201 Application schema

- **S-125 Application schema**
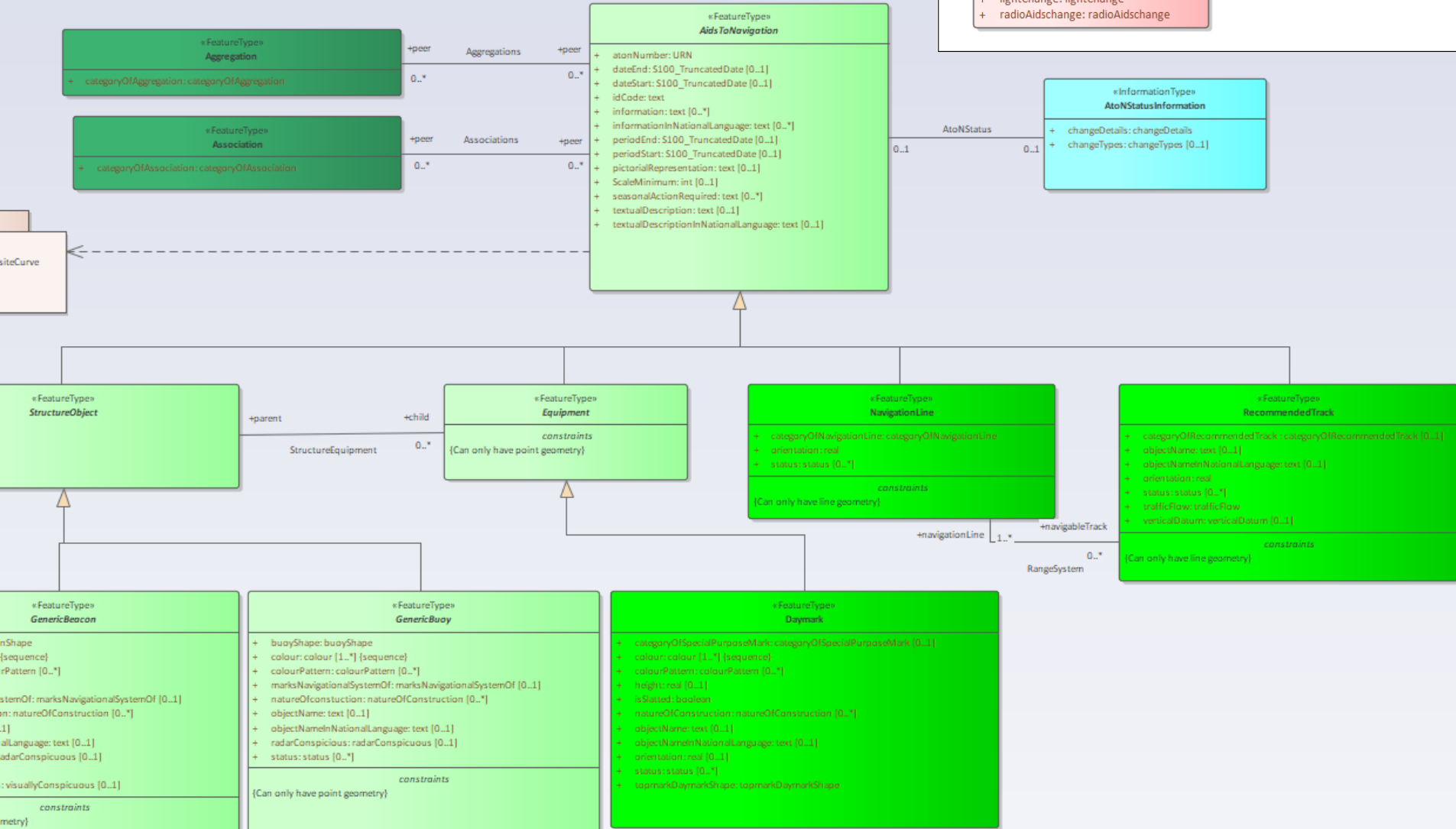
(Information type) AtoN Status Information

Structure Object

Equipment

Generic Beacon

Generic Beacon	Generic Buoy	Equipment
Beacon Safe water	Buoy Safe Water	Radar Reflector
Beacon Isolated Danger	Buoy Isolated Danger	Fog Signal
Beacon lateral	Buoy Lateral	Topmark
Beacon Cardinal	Buoy Cardinal	Light
Beacon Special Purpose General	Buoy Special Purpose General	Day mark
Landmark	Buoy Installation	Retro Reflector
Pile	Mooring Warping Facility	Radio Station
Light Float	Buoy Emergency Wreck Marking	Physical AIS AtoN
Day mark	Offshore Platform	Navigation Line / Virtual AIS AtoN
Silo Tank	Light Vessel	Recommended Track / Synthetic AIS AtoN

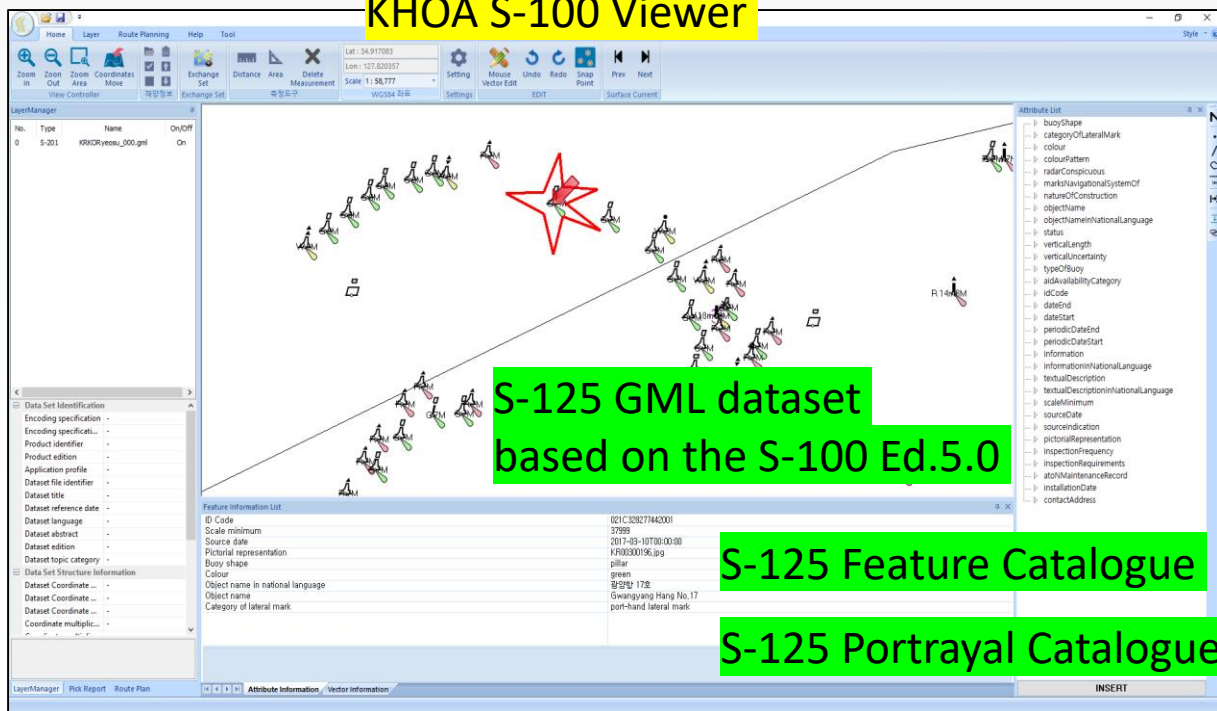- UML Diagram

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- **Major progress**
  - S-125 Application schema is inline with the S-201 except Aton maintenance and moorings feature types
  - Main document was refined considering other S-10X PS
  - In order to meet the S-100 Ed. 5.0, FC and GML Schema of S-201 was created with CCG and CARIS support
  - S-125 FC and GML Schema has been created with modifying the S-201 FC and GML Schema
  - Joint S-100/S-200 workshop discussed the S-125 portrayal catalogue

- **Following plan**
  - Refined main document and other components will be submitted to the ARM16
  - S-125 portrayal catalogue will be drafted
  - ARM16 reviews the S-125
  - After ARM16, the S-125 packages will be provided to NIPWG for comments

S-125 development

- **S-125 Portrayal**
  - S-201/S-125 TG will review the proposed symbol in ARM15
  - Discuss which symbol is appropriate for AtoN status
  - KHOA S-100 Viewer / SVG editor will be used to test and edit the S-100 Symbol SVG files
  - S-125 Portrayal catalogue will be drafted and agreed in the ARM16
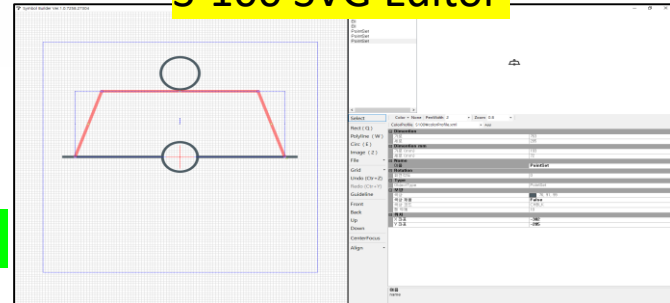

KHOA S-100 Viewer

Proposed symbol of AtoN Status

S-125 GML dataset based on the S-100 Ed.5.0

S-100 SVG Editor

S-125 Feature Catalogue

S-125 Portrayal Catalogue

Change Types
1. Temporary changes : T
2. Proposed changes : P
3. Advance notice of change : A
4. Discrepancy

- **Purpose of S-125 data**
  - to be <mark>updated more frequently</mark> than the S-101 dataset
  - As there are differences in the frequency of when the S-101 dataset can be issued, which is to the best of the ability of the provider,
  - the S-125 dataset should be updated at a frequency necessary to support navigational safety
  - S-125 should include, at a minimum, the same AtoN data contained in the S-101 Product Specification
  - <mark>4 identified statuses</mark> (Discrepancy, Temporary Change, Proposed Change, and Advanced Notice of Change)
  - <mark>S-125 data has benefits like AtoN status and frequent updates than S-101 ENC</mark>

- **Interoperability between S-125 and S-101**
  - <mark>S-125 data merely as an overlay</mark> was considered a big enough first step to implement instead of data replacement
  - As an option for replacement of data, <mark>portrayal of only the status data</mark>, and not replacing nor duplicating actual existing AtoN symbology was generally accepted
  - the actual dataset could still contain a full set of AtoN data, although <mark>only status would need to be portrayed</mark> on ECDIS
  - The status indicator symbol would merely be flagging and not obscuring the ENC symbol
  - Interoperability could be enhanced at a later stage
  - It was concluded that only the <mark>S-125 status change symbology and pick reports need to be included by overlay/interleaving</mark>

THANK YOU