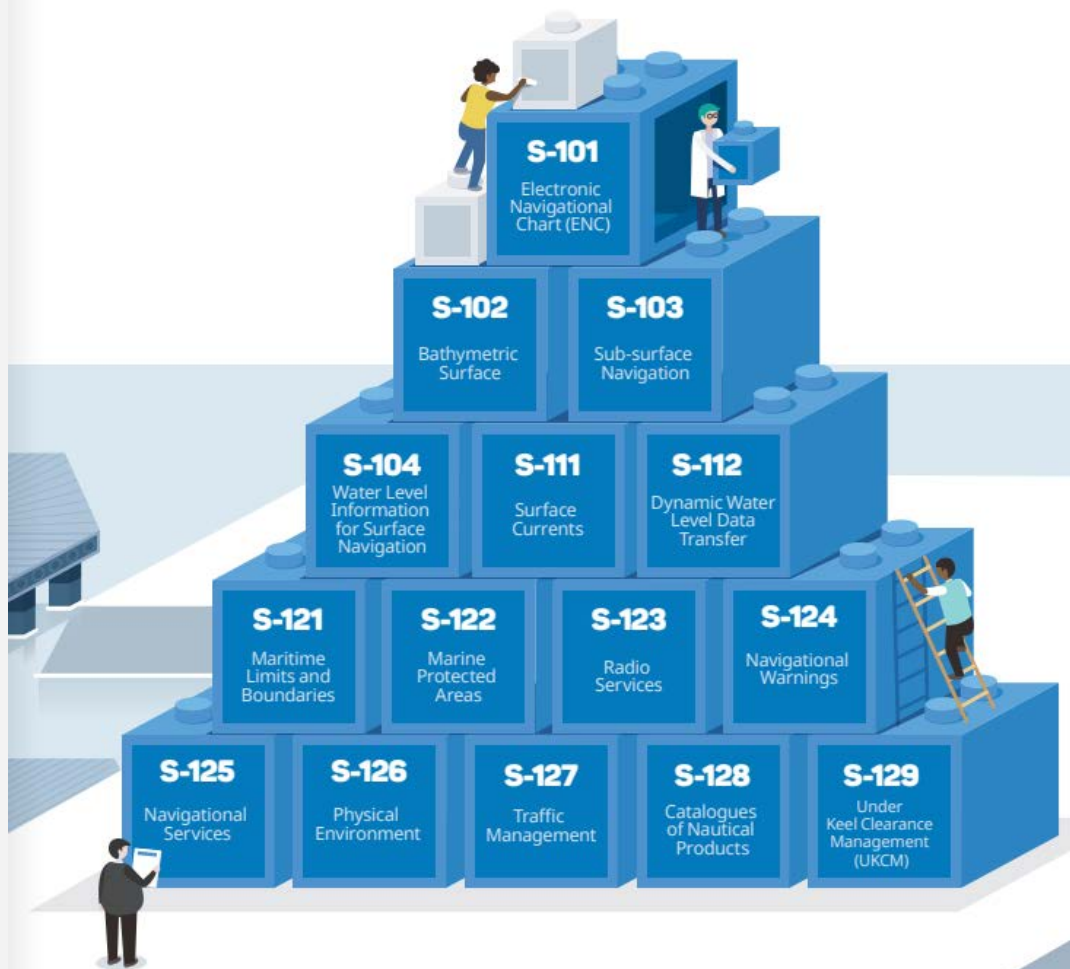




S-131 Marine Harbour Infrastructure

S-10X PRODUCTS AND SERVICES



S-100 Universal Hydrographic Data Model

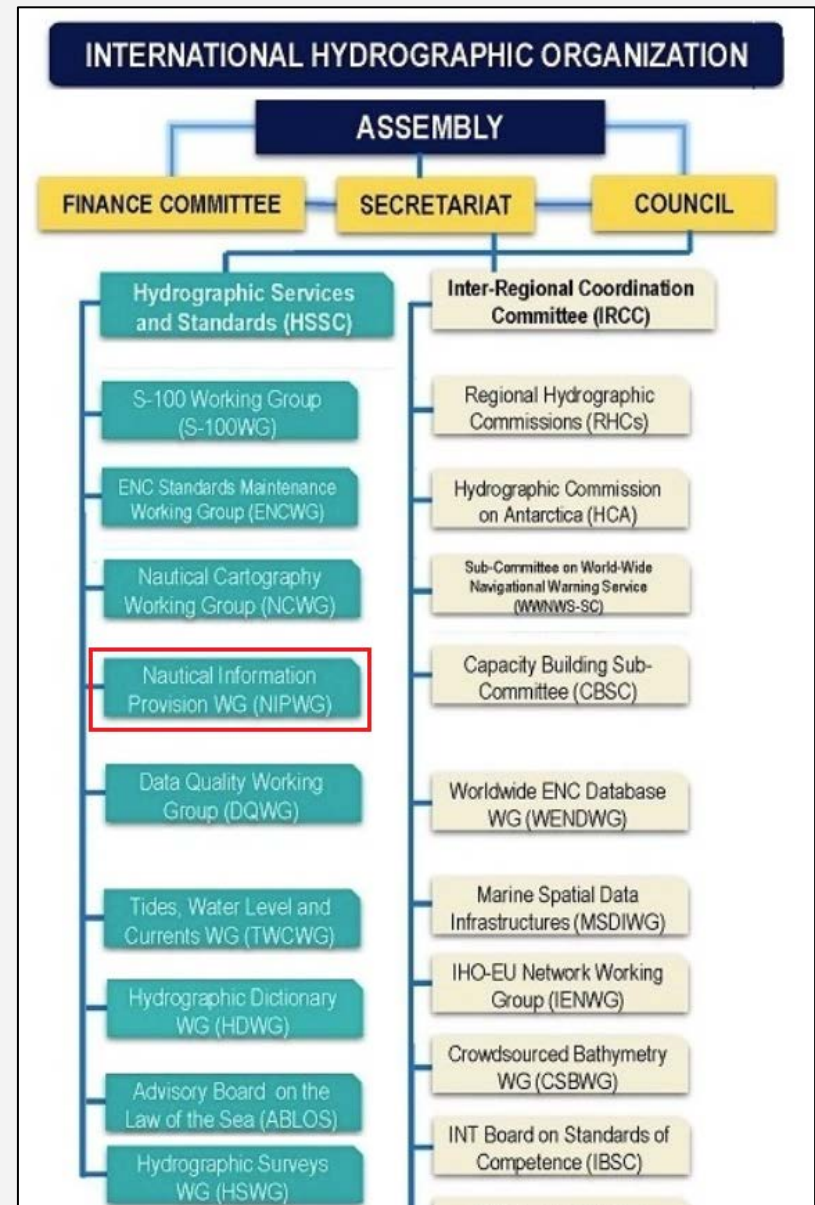


IHO



Background

- Ongoing discussions since 2005 (IHO SNPWG/NIPWG).
 - International PORTCDM Council.
 - Port Manual information (2019) IHMA.
- NIPWG work on S-131 started 2020 (Commissioned by HSSC).
- WG participants:
 - IHO Member States
 - Industry (Port of Rotterdam)
 - Academia (UNH)



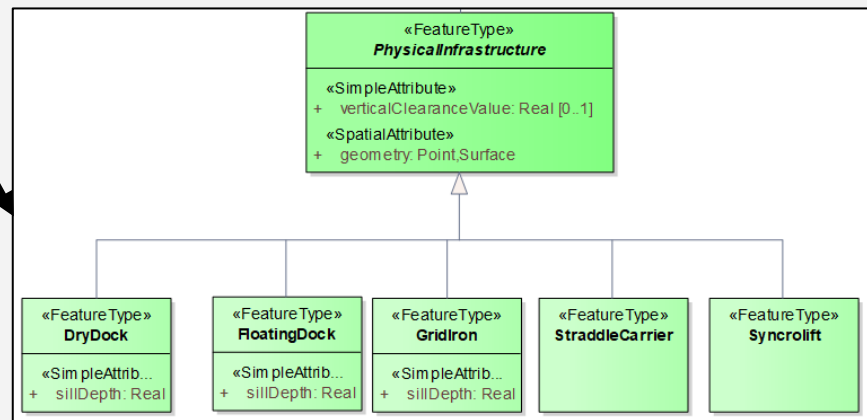
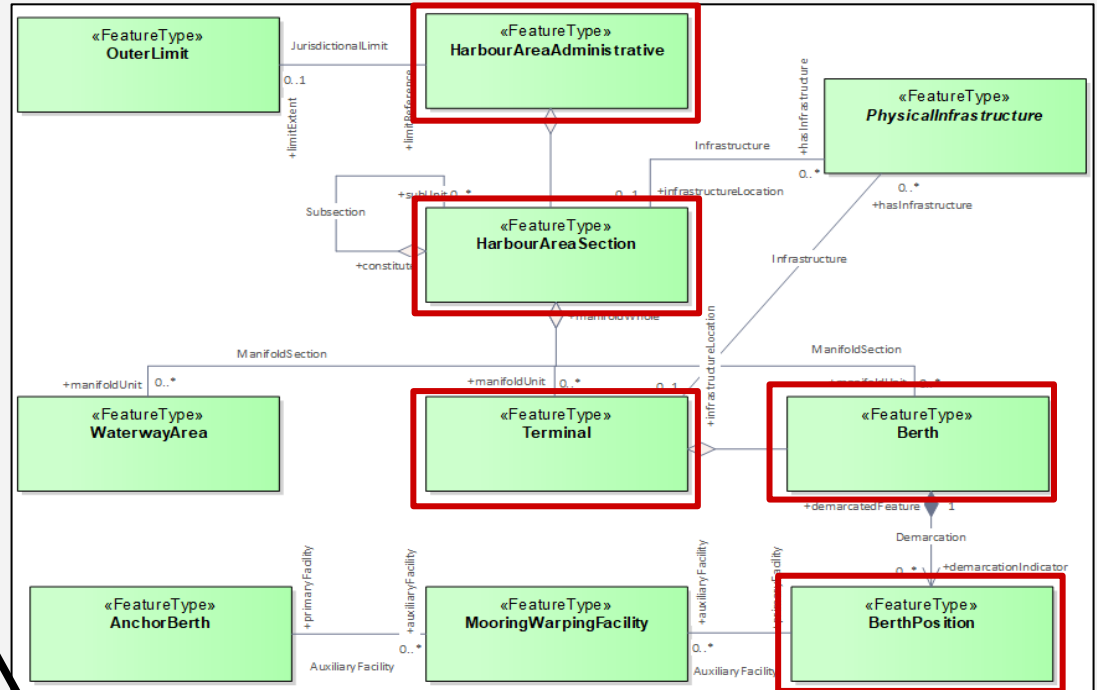
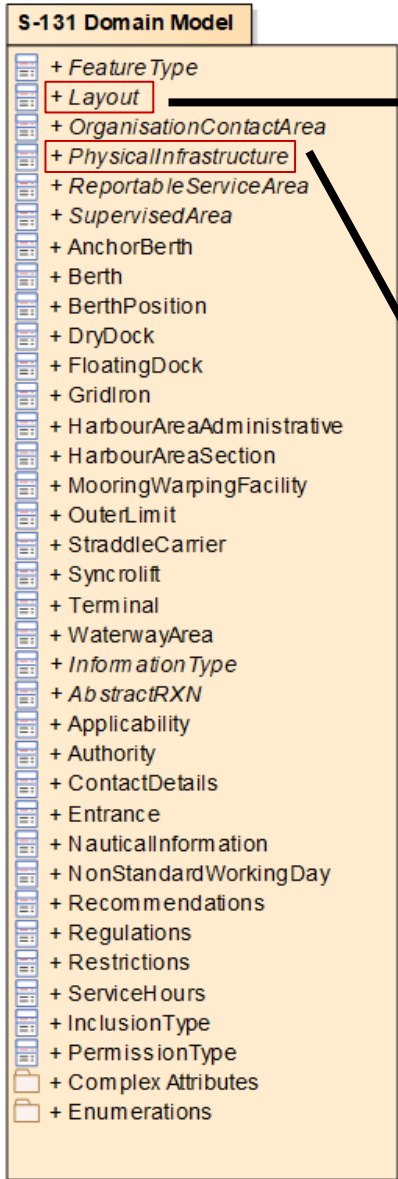
Abstract and Scope

- Abstract:
 - Intended use is to raise situational awareness before approaching a harbour.
 - Layout of the berths as well as the services offered for berthing procedure.
 - Berth-to-berth route planning process for an efficient harbour call.
 - Presented in a way that is compact, organised and easily accessible.
 - This information is also useful for shipping companies, brokers and other in the industry to optimize their planning.
- Scope:
 - The Marine Harbour Infrastructure describes relevant data on **harbour infrastructure**, **facilities** and **services** in a harmonised form.

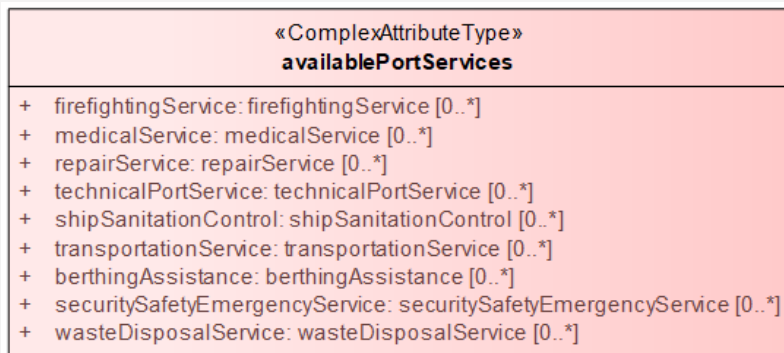
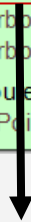
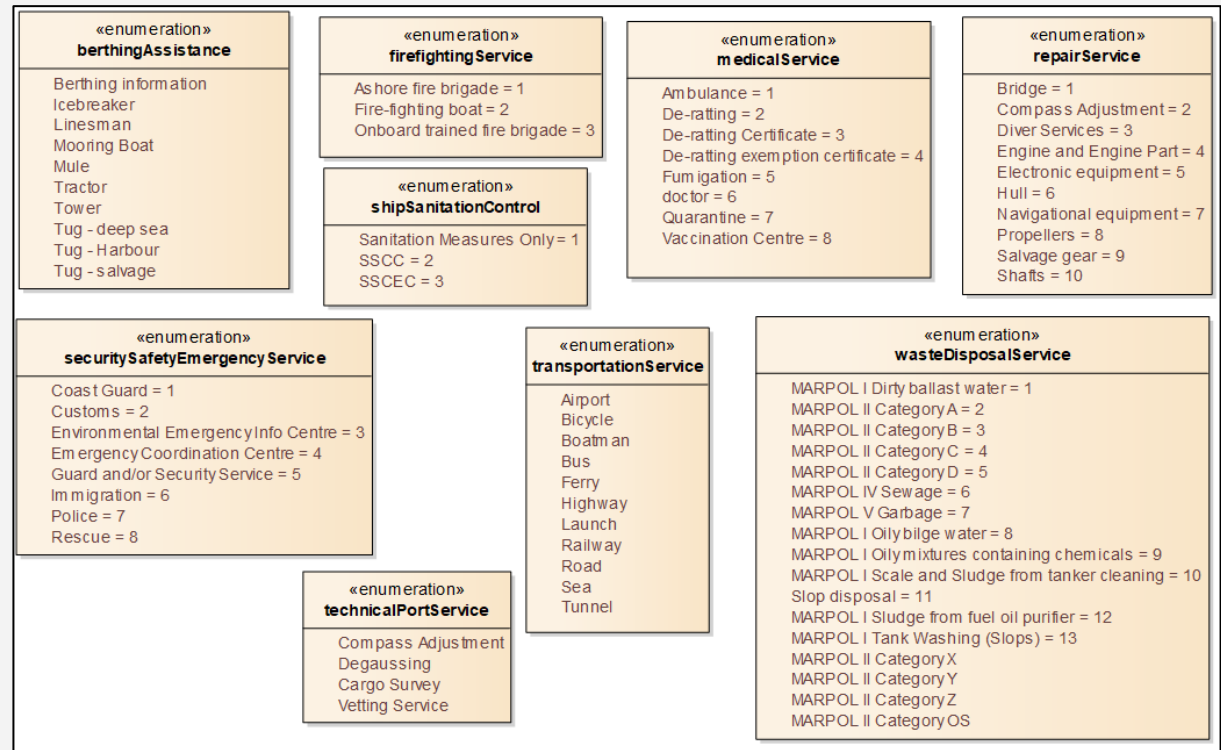
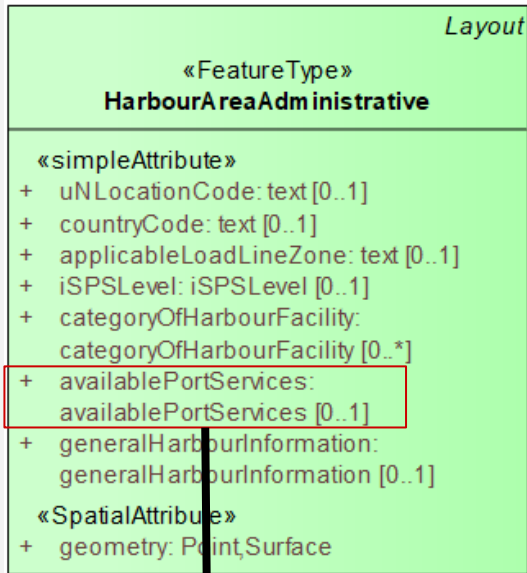
3 main categories

Port/Harbour Layout Features	Port/Harbour Physical Infrastructure Features	Port/Harbour non-Physical Infrastructure_Features
PortArea/HarbourArea	HarbourFacility (S-101)	EmergencyCoordinationCentre
SocialAndPolitical	Small craft facilities (S-101)	EnvironmentalEmergencyInformationCentre
AnchorageArea (S-101)	PilotBoardingPlace	PortServicesBerthingAssistanceService
AnchorBerth (S-101)	Waterway	PortServicesSupplyService
PortSectionArea (PortLayoutArea, PortLayoutSection)	DryDock (S-101)	PortServicesWasteDisposal
Terminal	FloatingDock (S-101)	PortServicesRepairService
Berth (from S101)	Gridiron (S-101)	PortServicesTechnical
BerthPosition	Syncrolift (S-101)	PortServiceMedicalService
MooringFacilities (S-101)	StraddleCarrier	PortServiceFireFighting
		PortServiceSecuritySafety

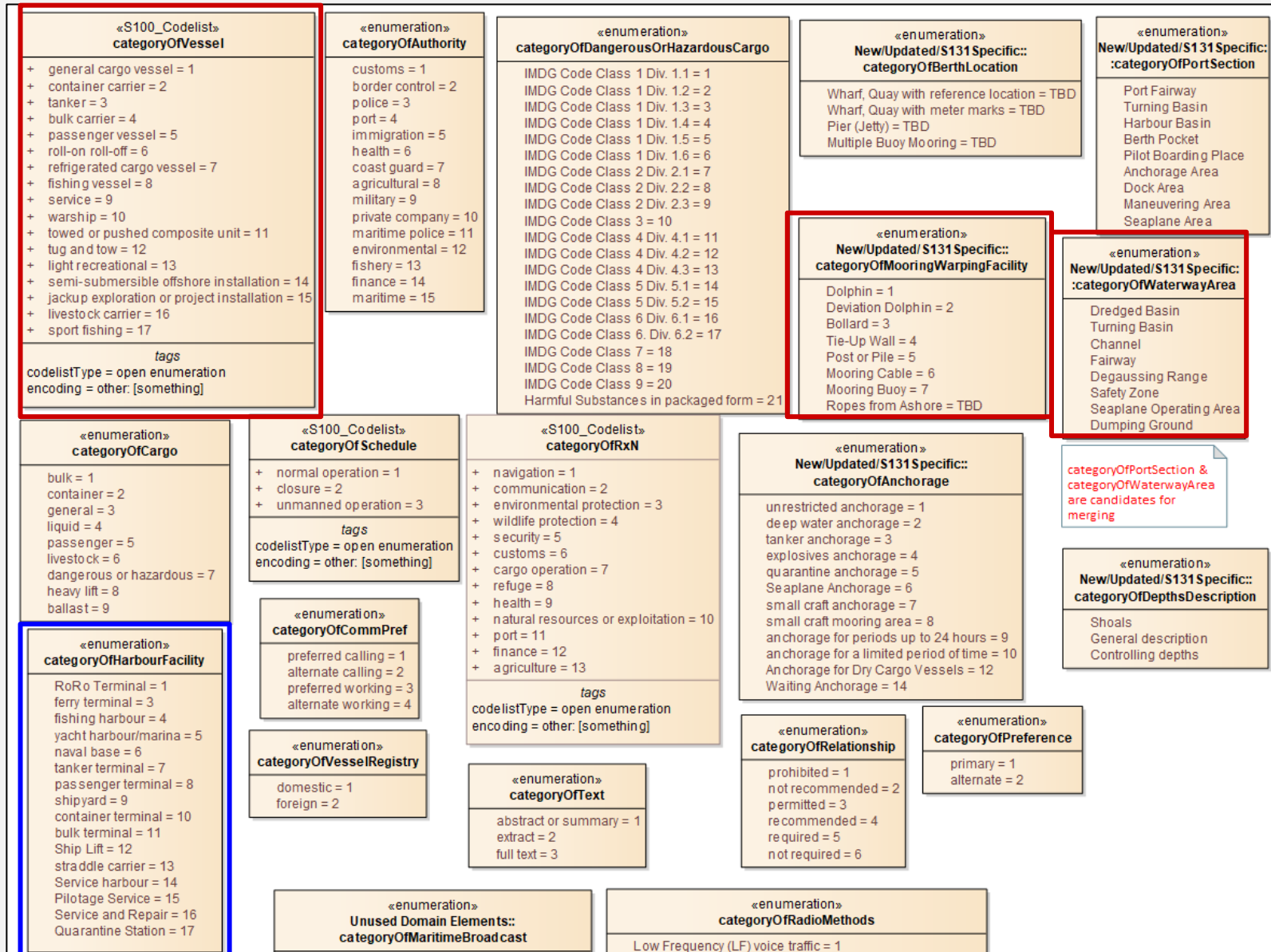
Domain Model



Services



Enumerations and codelists



Equal features and attributes - different product specifications.

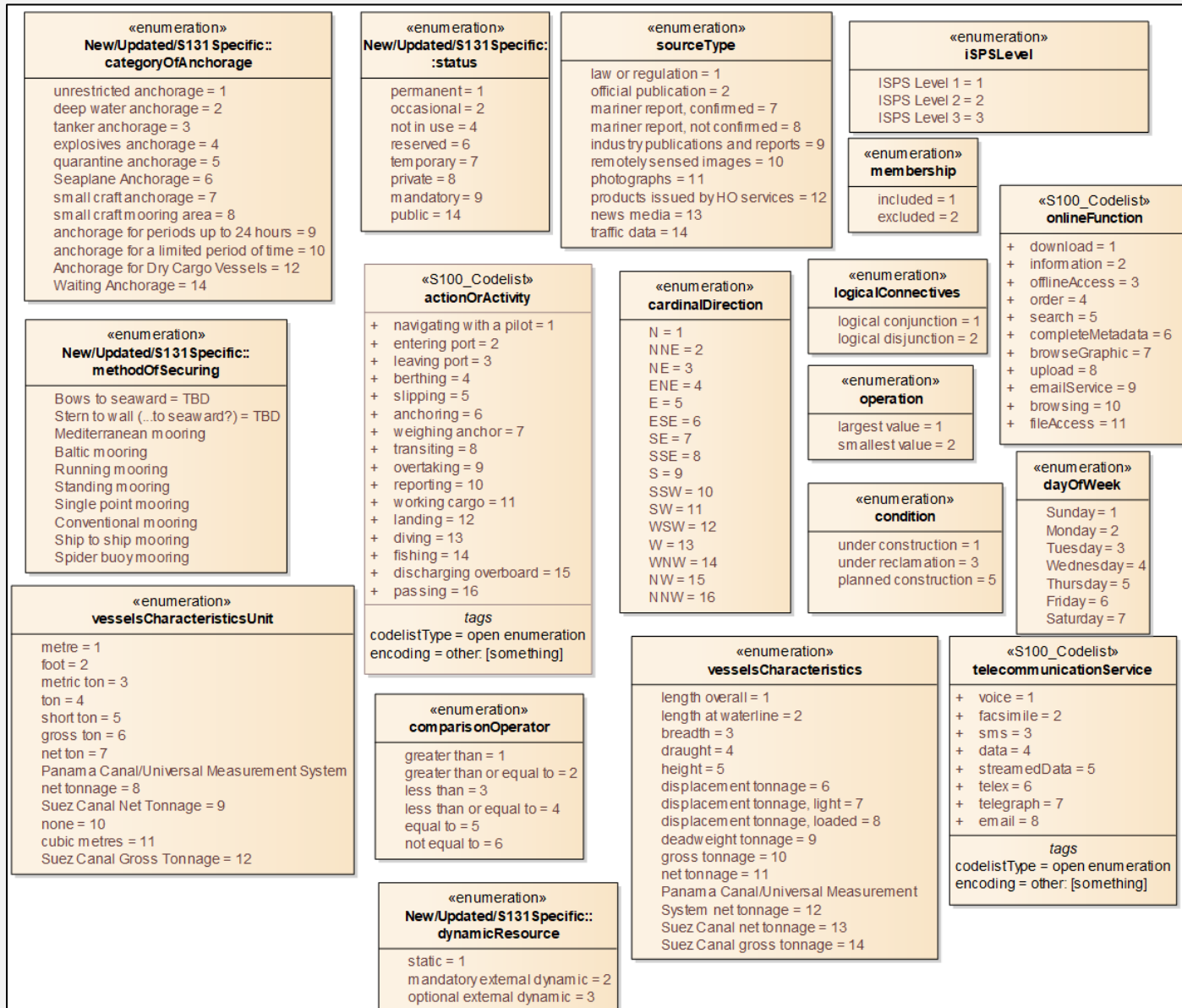
S-131

«enumeration» categoryOfHarbourFacility
RoRo Terminal = 1 ferry terminal = 3 fishing harbour = 4 yacht harbour/marina = 5 naval base = 6 tanker terminal = 7 passenger terminal = 8 shipyard = 9 container terminal = 10 bulk terminal = 11 Ship Lift = 12 straddle carrier = 13 Service harbour = 14 Pilotage Service = 15 Service and Repair = 16 Quarantine Station = 17

S-101

S-101 Attribute	S-57 Acronym	Allowable Encoding Value	Type	Multiplicity
category of harbour facility	(CATHAF)	1 : RoRo-terminal 3 : ferry terminal 4 : fishing harbour 5 : yacht harbour/marina 6 : naval base 7 : tanker terminal 8 : passenger terminal 9 : shipyard 10 : container terminal 11 : bulk terminal 12 : ship lift 13 : straddle carrier 14 : service harbour 15 : pilotage service	EN	1,*

Enumerations and codelists

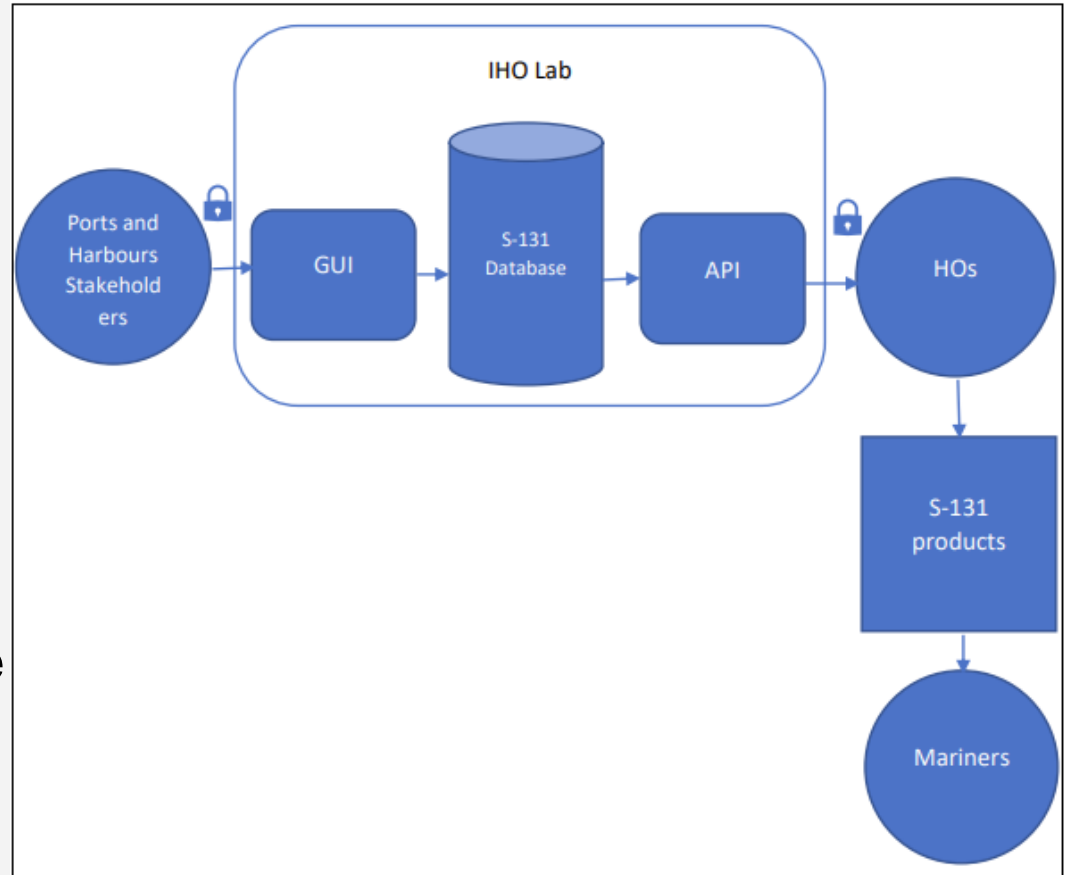


Progress

- Started 2020.
- February 2022 - version 0.0.2.
- IHO contracted Portolan Sciences to finalize version 1.0.0
 - Testing and implementation purposes
 - Test phase
- Further process towards version 2.0.0 for operational use.

Marine Harbour Infrastructure Database

- Ports face difficulties when gathering data from all data owners in the port; as the port authority is not data owner of all port data (e.g, terminals may be the data owner of the soundings of the berthing pocket).
- Marine Harbour Infrastructure database will facilitate the information exchange between harbours and HOs.



Thank you!

