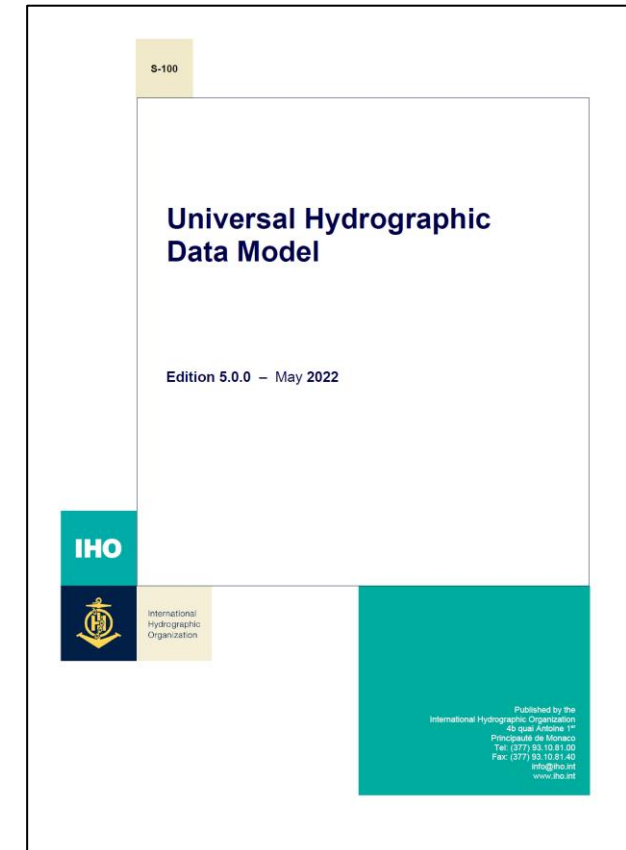


S-100 and MSDI

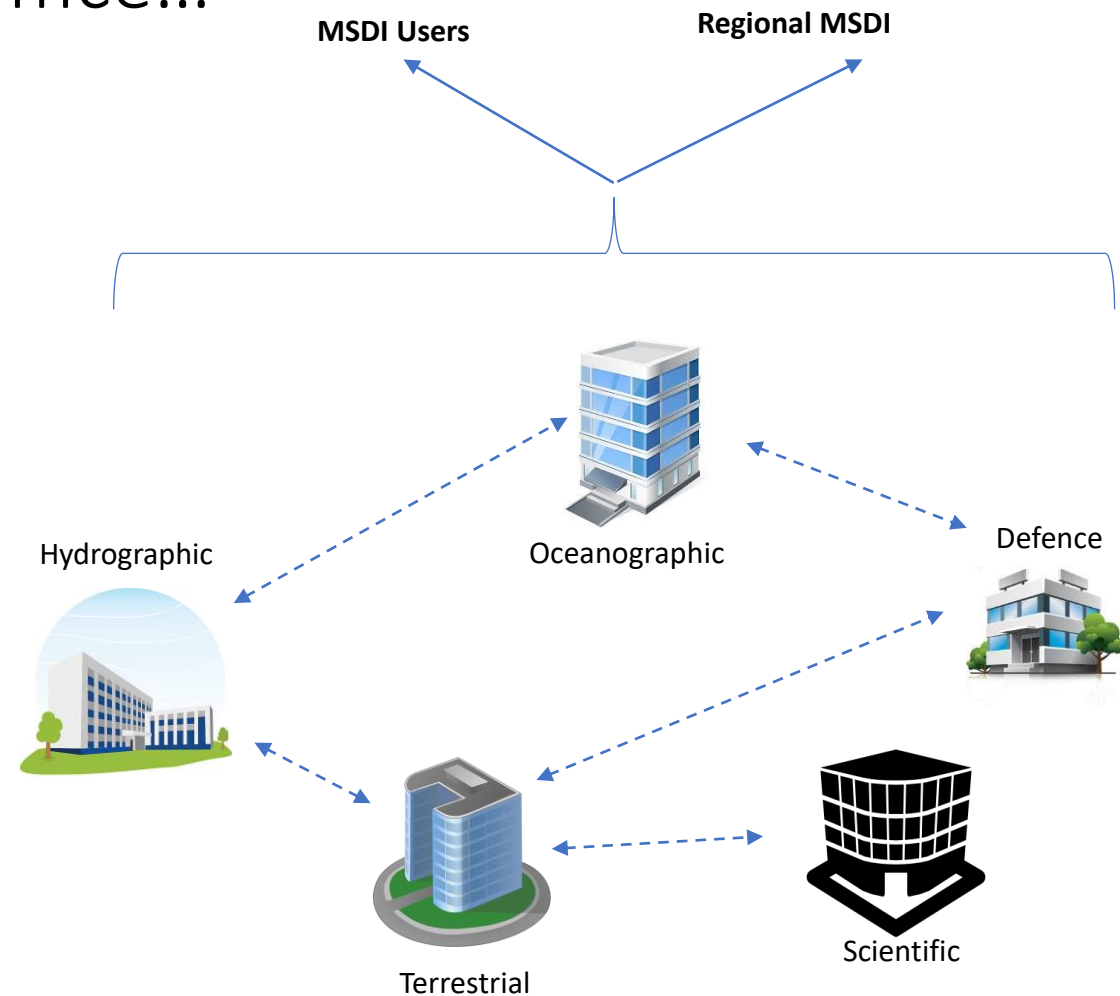
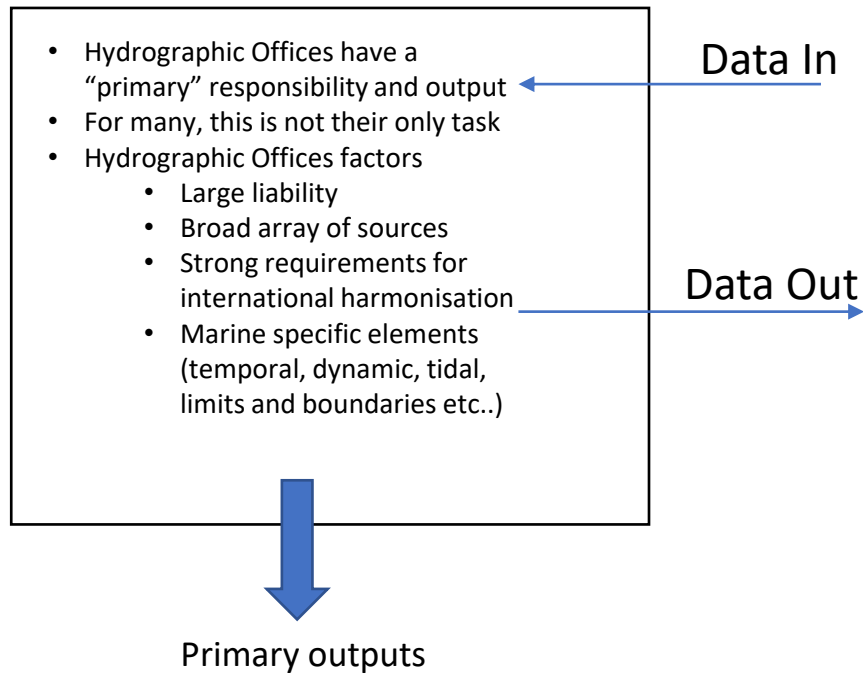
Developments - 2022

Update on activities

- S-100 edition 5.0.0 has been published by the IHO
 - Supported by S-98 edition 1.0.0 and supplementary activities
 - Many product specifications are in development and upgrade to 5.0.0
- The focus of IHO members is on navigation use cases
 - IMO updates to S-100
 - Supplementary support (S-98, catalogues, S-101, “operational” versions)
- MSDI aspects of S-100 edition 5.0.0
 - “Operationalisation” – support by COTS providers
 - Interoperability
 - Revisions to metadata sections, better descriptions of temporal and spatial metadata
 - Data Protection/Authentication mechanisms
 - Multi-lingual features
 - GML encodings
 - MRN identifiers

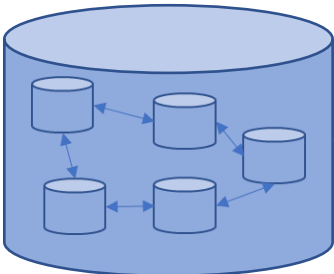


SDI view of the hydrographic office...

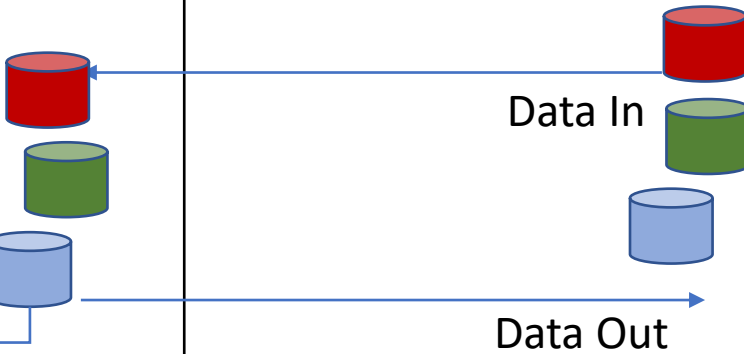




- “Interoperability”?
- Even with S-100, many data sources will require **transformation** for input and output to other entities
- This is characterised by hydrographic “operations”



“Primary” outputs



Terrestrial

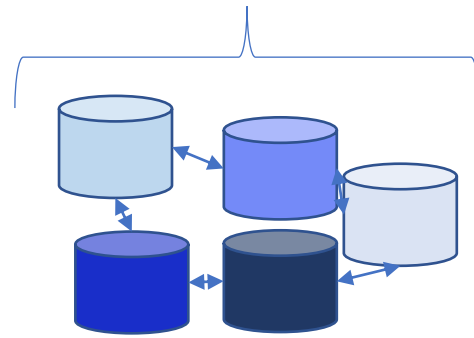


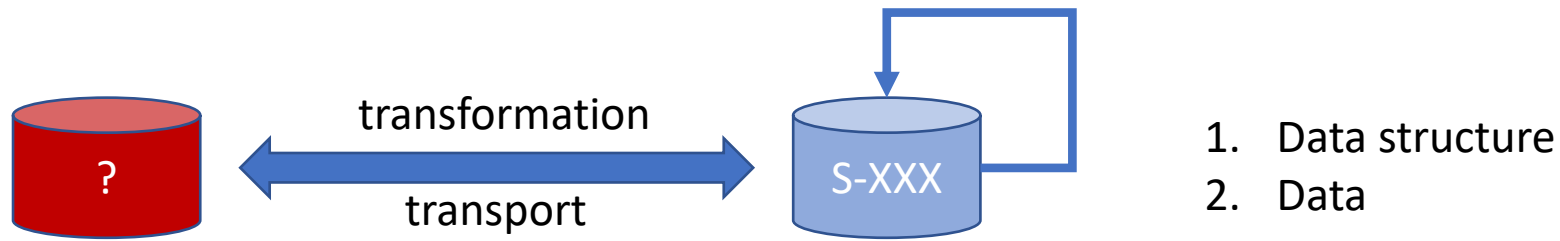
Scientific

Defence



S-100





Interoperability is technically dependent on two main principles:

- Common reference frames (spatial and temporal) (*reasonably easy*)
- Interoperable models (*very difficult*)

You have to be able to “convert” both “where something is”, and “what it is”.

- S-100 is a model driven framework so construction of interoperable models in the marine domain are much easier. This extends across both vector and raster/dense models.
- Gaps exist at the framework level for arbitrary transformation of models conforming to different S-100 product specifications.
- Import of non-S-100 models is made easier by certain S-100 aspects (ISO, open standards/formats, separation of content from encoding). A methodology for import of data and data structures to/from S-100 structures should be achievable
- Outside the maritime domain transport and access is helped considerably by OGC frameworks
- A combination of a mature S-100 adoption, OGC web services and such methods should meet many, if not all, hydrographic office MSDI requirements.

Some thoughts on how we prioritise our work?

- Many do not need the “cutting edge”.
- The diversity of adoption increases as we move forward
- The S-100 community needs to address the basics of implementation as well as the needs of those early adopters to gain full consensus and to be ready for mandated adoption under IMO.

