

# Searching for common ground at sea

## Diving deeper into the process of delivering bathymetry data to different user groups

Ellen Vos, Hydrographic Service of the Royal Netherlands Navy (the Netherlands), [em.vos@mindef.nl](mailto:em.vos@mindef.nl)  
Eliza Etman, Hydrographic Service of the Royal Netherlands Navy (the Netherlands),  
[ea.etman@mindef.nl](mailto:ea.etman@mindef.nl)

### The need for bathymetry.

The Netherlands Hydrographic Service (NLHS) collects bathymetry data at sea to produce navigational charts for safe navigation. However, other than only for charting this data can serve many other purposes. This re-use of the data for other purposes is an efficient use of resources. Both the EMODnet program and INSPIRE Directive are European initiatives deal with the re-use of bathymetry. The NLHS is committed to both of them and started serving it as open data.

### From 'ex usu nautae' to 'ex usu communi'.

The traditional role of a hydrographic agency has changed. Still, the main added value of bathymetric data is its contribution to safe navigation. 'Ex usu nautae', means 'serving the sailor'. However, congruent with the open data trends and needs, bathymetric data is not exclusive for the sailor anymore. It is a common good, and thus 'ex usu communi'. This means that hydrographic organisations need to adapt their mindsets by developing additional skills and adopt new ways of working to meet the challenges posed by these emerging needs from different worlds.

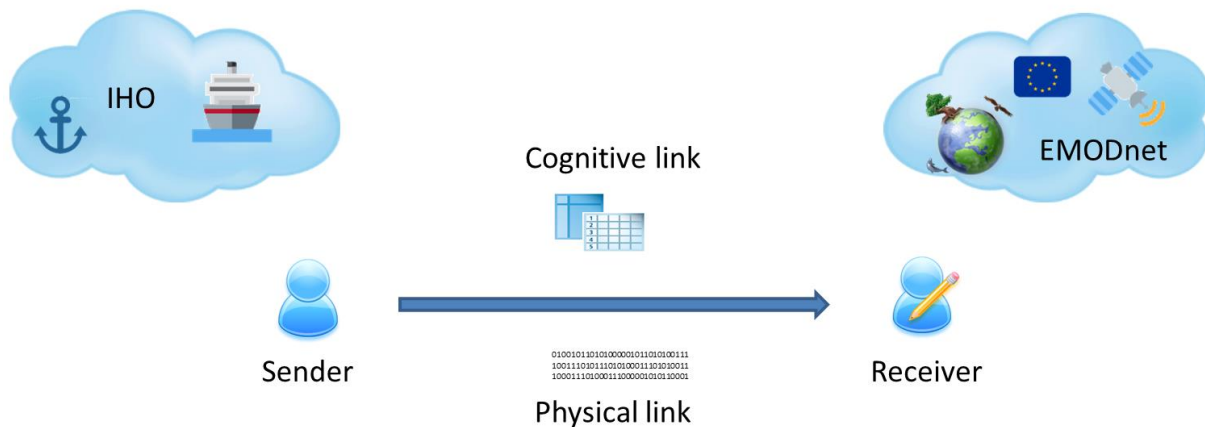


Figure 1: Aspects of communication between sender and receiver

### The efforts it takes to produce different data packages for different types of users.

Figure 1 shows that the new types of users (EMODnet and INSPIRE users) speak different languages than the traditional users (navigators on the bridge). In addition, they are used to different standards for packaging data and use (different) portals to find the data. This means that the Hydrographic Service needed to adjust in many different ways to connect to the perspective of this new audience.

For example, metadata is evident content in many portals, as it enables the data to be found. No metadata, no data! In the current situation, for civil purposes only, the bathymetric grid must be described using up to three metadata-profiles, to be found on three different portals: the National Geo-Portal NGR, the European INSPIRE Portal and the EMODnet Portal. Although these profiles are all

based on the ISO 19115 metadata specifications, there are both semantic differences and procedural differences in acquiring the metadata files.

Recently, Flemish Hydrography has initiated the metadata profiles of EMODnet to become INSPIRE compliant. This European example helps us to investigate to what degree metadata-profiles could be translatable to other profiles.

### **Breakdown of the new composite process in structural building blocks.**

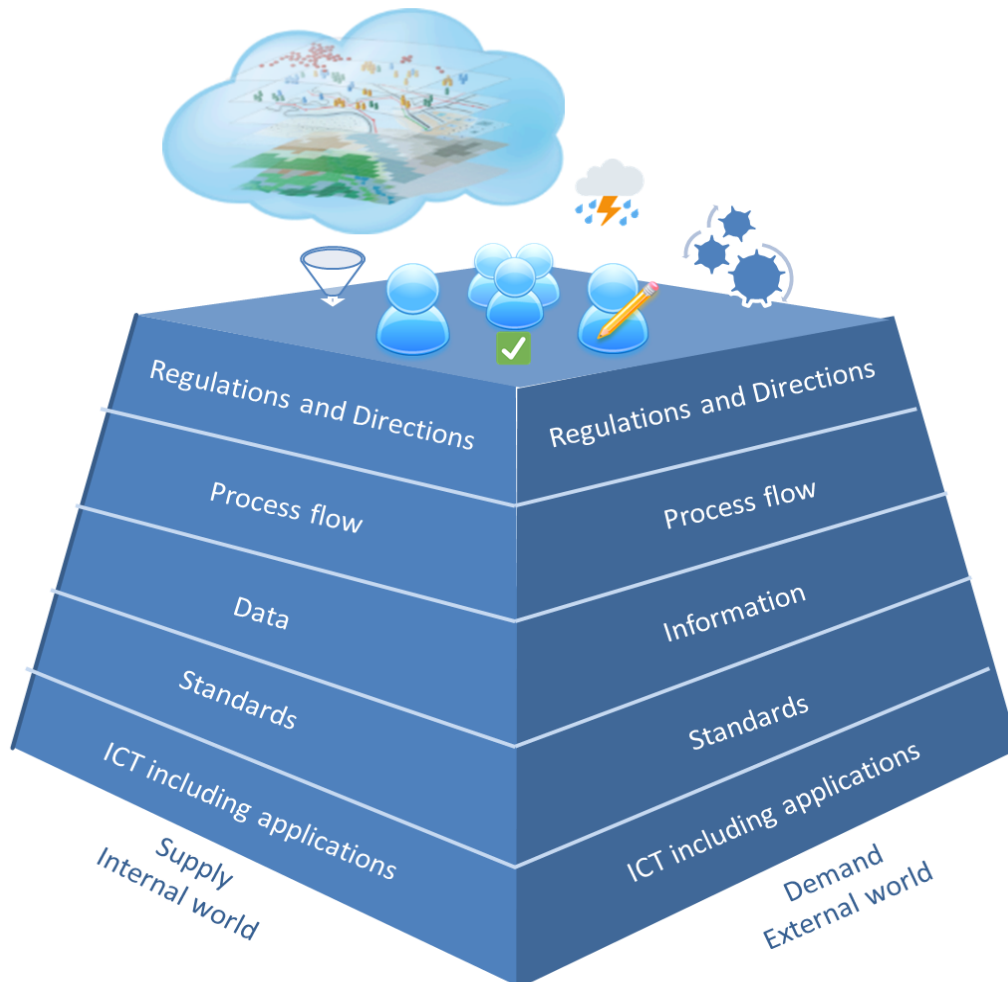


Figure 2: Framework to enable common understanding

In our presentation, we will dive deeper into the process. We will use the framework presented in Figure 2 to explain how we changed our internal structures to pass the bathymetry over to EMODnet and INSPIRE users in a meaningful way.

### **Sharing solutions looking for Common Ground.**

Our experience at the Netherlands Hydrographic Service is that there does not exist a 'one size fits all' solution for Hydrographic Offices or other organizations to deliver good quality bathymetry to the navigator and both the EMODnet and INSPIRE user. Nevertheless, we intend to share our story of our 'obstacles and solutions' looking for Common Ground with other organizations to share stories about pain and glory and to share solutions together. Besides, applying the framework together as a community helps to strengthen our shared learning capacity, which helps to continue to meet future needs: serving Blue Growth.