Terminologies for Ocean Observations: the NERC Vocabulary Server

The NERC Vocabulary Server (NVS) has been serving the marine and wider community with controlled vocabularies and thesauri for over a decade. Two of its fastest growing vocabularies are of particular relevance to Ocean Observations: the SeaVoX Device Catalogue (http://vocab.nerc.ac.uk/collection/L22/) and the BODC Parameter Usage Vocabulary (https://www.bodc.ac.uk/resources/vocabularies/vocabulary_search/P01/).

Both are managed by BODC with input from the community. They are used to tag data values with precise semantics. L22 is used to identify the instrument models used to generate the data including in situ sensors, analytical laboratory equipment, sample collectors; P01 is used to identify what the data value represents, describing precisely what was measured, derived, predicted or estimated. It also covers concepts related to ancillary metadata information to the value of interest.Concepts from both vocabularies are richly connected to concepts from internal or external vocabularies through mappings that are aimed at facilitating their discovery and interoperability with other terminology resources. Thus, data tagged with L22 and P01 concepts become semantically aware and readily available for big data analysis in VRE and Linked Data applications. The L22 and P01 vocabularies preserve key elements of metadata information next to the data value, identifying and encoding information that is often crucial in assessing the fitness for purpose of data. They support precise identification but can also contain broad terms that can be used for data aggregation products or for legacy data ingestion when information may have been lost. Tagging data with precise semantics optimizes data re-use and discovery since the data can then be aggregated, filtered, or linked in multiple ways. This service is funded by the Natural Environment Research Council while work done has been funded by EU projects ODIP I & II, SeaDataNet/SeaDataCloud, EMODnet, Envri-FAIR.