



Current Efforts in European Projects to Facilitate the Sharing of Scientific Observation Data

Henning Bredel (1), Matthes Rieke (1), Joan Maso (2), Simon Jirka (1), and Christoph Stasch (1)

(1) 52°North GmbH, Münster, Germany, (2) CREAM, Barcelona, Spain

This presentation is intended to provide an overview of currently ongoing efforts in European projects to facilitate and promote the interoperable sharing of scientific observation data. This will be illustrated through two examples: a prototypical portal developed in the ConnectinGEO project for matching available (in-situ) data sources to the needs of users and a joint activity of several research projects to harmonise the usage of the OGC Sensor Web Enablement standards for providing access to marine observation data.

ENEON is an activity initiated by the European ConnectinGEO project to coordinate in-situ Earth observation networks with the aim to harmonise the access to observations, improve discoverability, and identify/close gaps in European earth observation data resources. In this context, ENEON commons has been developed as a supporting Web portal for facilitating discovery, access, re-use and creation of knowledge about observations, networks, and related activities (e.g. projects). The portal is based on developments resulting from the European WaterInnEU project and has been extended to cover the requirements for handling knowledge about in-situ earth observation networks. A first prototype of the portal was completed in January 2017 which offers functionality for interactive discussion, information exchange and querying information about data delivered by different observation networks. Within this presentation, we will introduce the presented prototype and initiate a discussion about potential future work directions.

The second example concerns the harmonisation of data exchange in the marine domain. There are many organisations who operate ocean observatories or data archives. In recent years, the application of the OGC Sensor Web Enablement (SWE) technology has become more and more popular to increase the interoperability between marine observation networks. However, as the SWE standards were intentionally designed in a domain independent manner, there are still a significant degrees of freedom how the same information could be handled in the SWE framework. Thus, further domain-specific agreements are necessary to describe more precisely, how SWE standards shall be applied in specific contexts. Within this presentation we will report the current status of the marine SWE profiles initiative which has the aim to develop guidance and recommendations for the application of SWE standards for ocean observation data. This initiative which is supported by projects such as NeXOS, FixO₃, ODIP 2, BRIDGES and SeaDataCloud has already led to first results, which will be introduced in the proposed presentation.

In summary we will introduce two different building blocks how earth observation networks can be coordinated to ensure better discoverability through intelligent portal solutions and to ensure a common, interoperable exchange of the collected data through dedicated domain profiles of Sensor Web standard.