



FixO³: Advancement towards Open Ocean Observatory Data Management Harmonisation

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Since 2002 there has been a sustained effort, supported as European framework projects, to harmonise both the technology and the data management of Open Ocean fixed observatories run by European nations.

FixO³ started in September 2013, and for 3 more years will coordinate the convergence of data management best practice across a constellation of moorings in the Atlantic, in both hemispheres, and in the Mediterranean. To ensure the continued existence of these unique sources of oceanographic data as sustained observatories it is vital to improve access to the data collected, both in terms of methods of presentation, real-time availability, long-term archiving and quality assurance.

The data management component of FixO³ improves access to marine observatory data by harmonising data management standards, formats and workflows covering the complete life cycle of data from real time data acquisition to long-term archiving. Legal and data policy aspects have been examined and discussed to identify transnational barriers to open-access to marine observatory data. As a result, a harmonised FixO³ data policy was drafted, which provides a formal basis for data exchange between FixO³ infrastructures, and also enables open access to data for the general public. FixO³ interacts with other European infrastructures such as EMODnet, SeaDataNet, PANGAEA, and especially aims to harmonise efforts with OceanSites and MyOcean.

The project landing page (www.fixo3.eu) offers detailed information about every observatory as well as data visualisations and direct downloads. In addition to this, metadata for all FixO³ – relevant data are available from the searchable FixO³ metadata catalogue, which is also accessible from the project web page. This catalogue is hosted by PANGAEA and receives updates in regular intervals. The FixO³ Standards & Services registry ties in with the GEOSS Components and Services Registry (CSR) and provides additional observatory information.

The data management efforts are central to FixO³. As a result of the procedural and technological harmonisation efforts undertaken in the project, the FixO³ network of observatories is accumulating unique, quality controlled data sets that will develop into a legacy repository of openly accessible oceanographic data.