

FixO³ Fixed Open Ocean Observatories

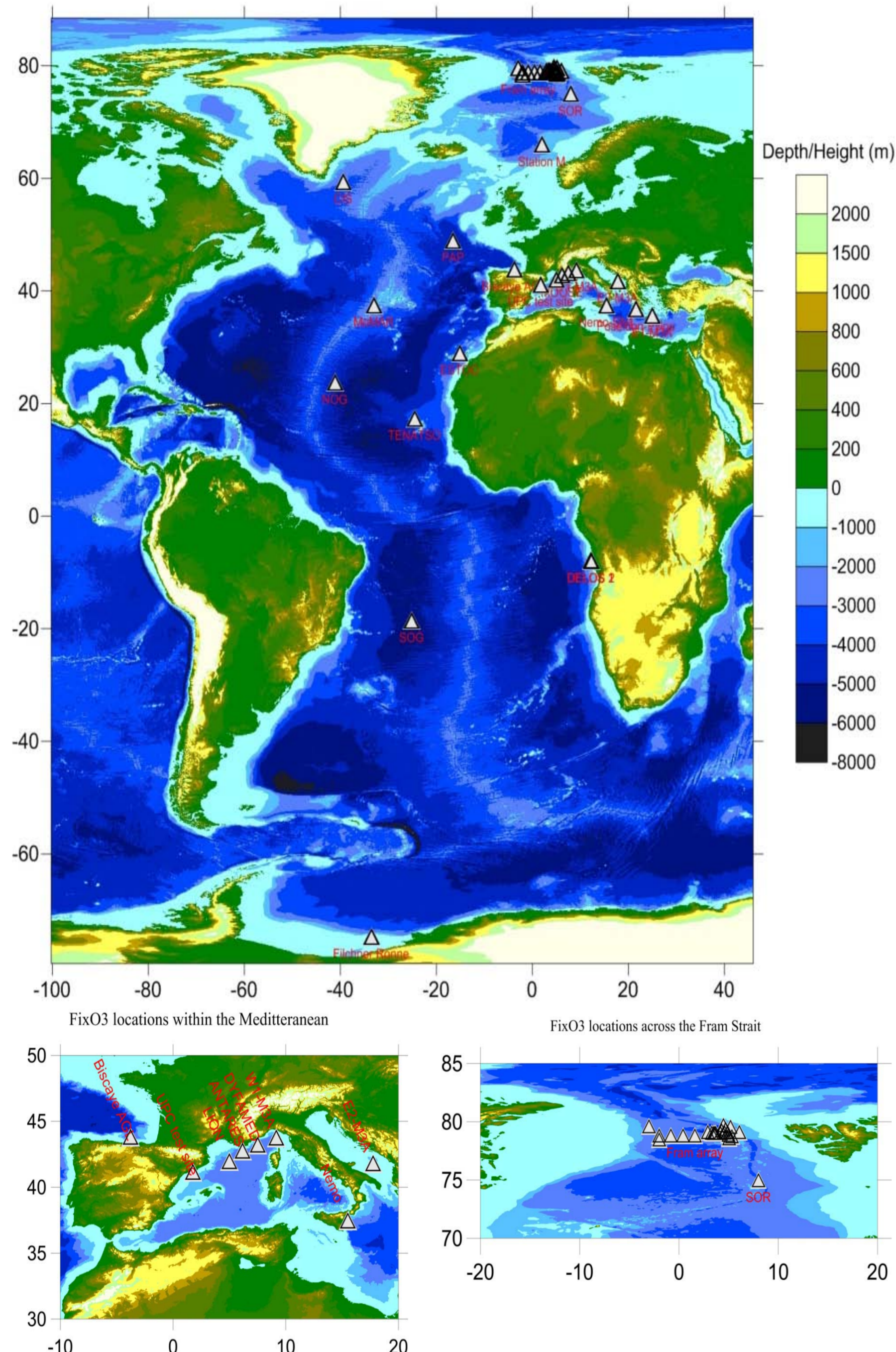
The next phase of Open Ocean observatory Data Management Harmonization

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Introduction

Since 2002 there has been a sustained effort, supported as European framework projects, to harmonise both the technology and the data management of Deep Ocean Moorings run by European nations. FixO3 started on the 1st September 2013, and for 4 years will coordinate the convergence of data management best practice across a constellation of 23 moored observatories 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 23 Observatories

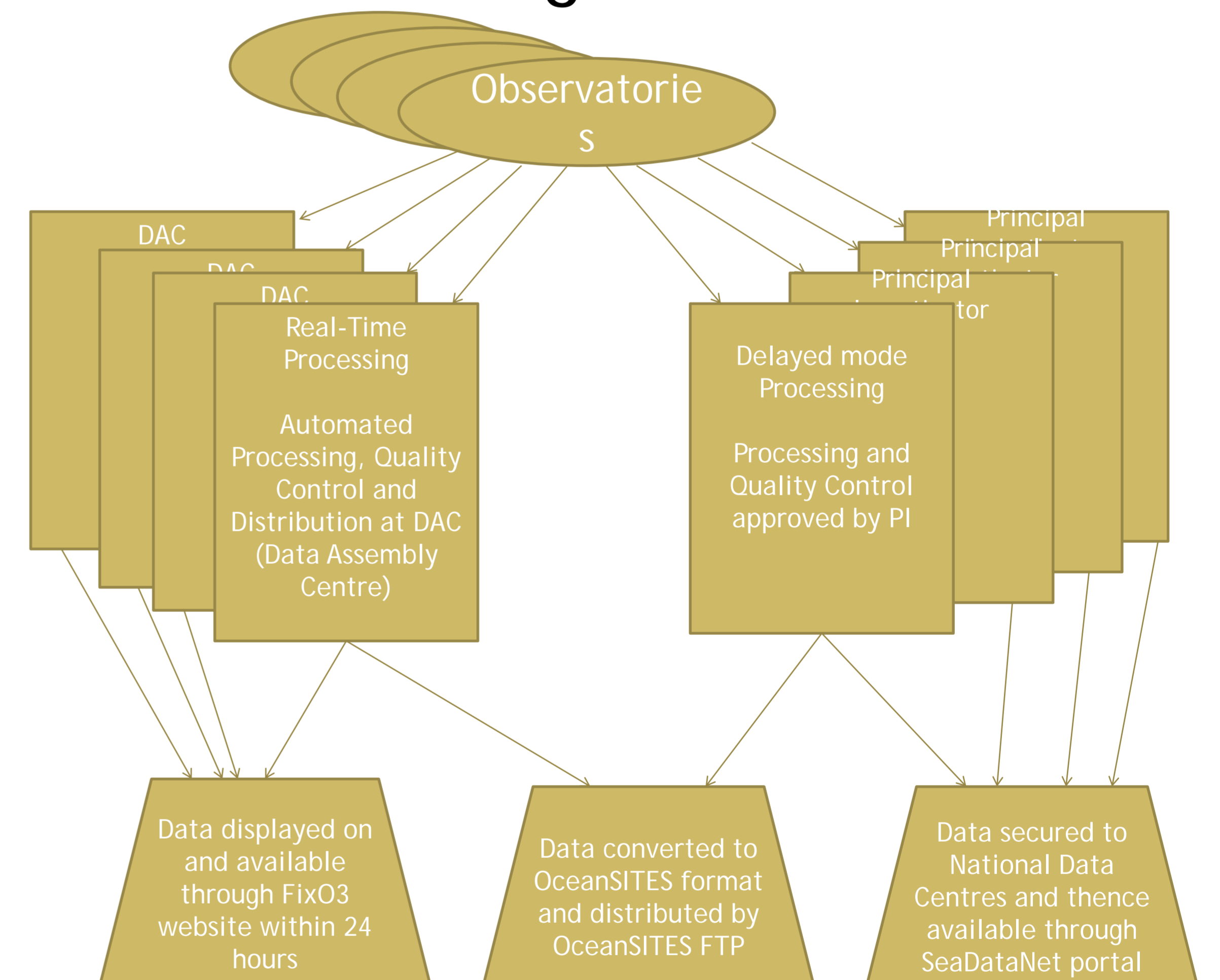


Figures showing the distribution of FixO³ observatories (top) with close-up of the Fram array (bottom left) which is the major gateway between the Atlantic and the Arctic and the Ligurian Sea array in the Mediterranean (bottom right)

The main objective of the Data Management work package is to improve access to marine observatory data by harmonizing data management standards and workflows covering the complete life cycle of data from real time data acquisition to long-term archiving. Legal and data policy aspects are addressed aiming to identify transnational barriers towards open-access to marine observatory data. To overcome these barriers, it is intended to harmonize data policies and to provide a formal basis for data exchange between FixO3 infrastructures.

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The Processing Streams



A further goal is to improve standardization, interoperability and compliance with major international initiatives. Presently, the interpretation and implementation of accepted standards has considerable incompatibilities within the observatory community, and needs to be harmonized. Further, this work package aims to harmonize data management and standardization efforts with other European and international marine data and observatory infrastructures. To assist observatories to comply with FixO3 standards a Data Assembly Center will synchronize data management efforts. All collected data and metadata will be harmonized with EDMONET, SEADATANET, PANGAEA, EuroSITES (European contribution to JCOMM OceanSITES programme), and MyOcean (the Marine Core Service for GMES) infrastructures.

Conclusion

FixO3 has set ambitious targets for the harmonization of data processing and presentation across 23 global open ocean observatories. By concentrating processing streams and sharing expertise between the DACs, data from these vital stations will be efficiently and consistently processed. The data will be made available to current users with reduced time lags and so establish new audiences for these unique data.