



AtlantOS – Optimizing and Enhancing the Integrated Atlantic Ocean Observing System

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Atlantic Ocean observation is currently undertaken through loosely-coordinated, in-situ observing networks, satellite observations and data management arrangements of heterogeneous international, national and regional design to support science and a wide range of information products. Thus there is tremendous opportunity to develop the systems towards a fully integrated Atlantic Ocean Observing System consistent with the recently developed 'Framework of Ocean Observing'.

The vision of AtlantOS is to improve and innovate Atlantic observing by using the Framework of Ocean Observing to obtain an international, more sustainable, more efficient, more integrated, and fit-for-purpose system. Hence, the AtlantOS initiative will have a long-lasting and sustainable contribution to the societal, economic and scientific benefit arising from this integrated approach. This will be delivered by improving the value for money, extent, completeness, quality and ease of access to Atlantic Ocean data required by industries, product supplying agencies, scientist and citizens. The overarching target of the AtlantOS initiative is to deliver an advanced framework for the development of an integrated Atlantic Ocean Observing System that goes beyond the state-of-the-art, and leaves a legacy of sustainability after the life of the project. The legacy will derive from the following aims: i) to improve international collaboration in the design, implementation and benefit sharing of ocean observing, ii) to promote engagement and innovation in all aspects of ocean observing, iii) to facilitate free and open access to ocean data and information, iv) to enable and disseminate methods of achieving quality and authority of ocean information, v) to strengthen the Global Ocean Observing System (GOOS) and to sustain observing systems that are critical for the Copernicus Marine Environment Monitoring Service and its applications and vi) to contribute to the aims of the Galway Statement on Atlantic Ocean Cooperation.

The EU Horizon 2020 AtlantOS project pools the efforts of 57 European and 5 non-European partners (research institutes, universities, marine service providers, multi-institutional organisations, and the private sector) from 18 countries to collaborate on optimizing and enhancing Atlantic Ocean observing. The project has a budget of € 21M for 4 years (April 2015 – June 2019) and is coordinated by GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany (Prof. Dr. Martin Visbeck). The project is organized along work packages on: i) observing system requirements and design studies, ii) enhancement of ship-based and autonomous observing networks, iii) interfaces with coastal ocean observing systems, iv) integration of regional observing systems, v) cross-cutting issues and emerging networks, vi) data flow and data integration, vii) societal benefits from observing/information systems, viii) system evaluation and resource sustainability. Engagement with wider stakeholders including end-users of Atlantic Ocean observation products and services will also be key throughout the project.

The AtlantOS initiative contributes to achieving the aims of the Galway Statement on Atlantic Ocean Cooperation that was signed in 2013 by the EU, Canada and the US, launching a Transatlantic Ocean Research Alliance to enhance collaboration to better understand the Atlantic Ocean and sustainably manage and use its resources.