

# OPTIMISING AND ENHANCING THE INTEGRATED ATLANTIC OCEAN OBSERVING SYSTEM

## ATLANTOS OVERARCHING GOAL

Integration of the so far loosely-coordinated set of existing ocean observing activities to a more sustainable, more efficient, and fit-for-purpose Integrated Atlantic Ocean Observing System.

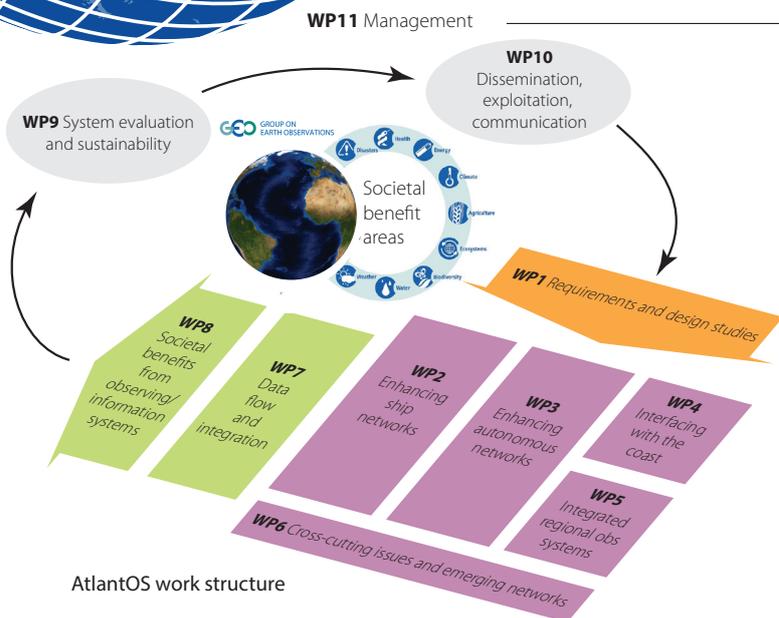


## INTRODUCTION AND BACKGROUND

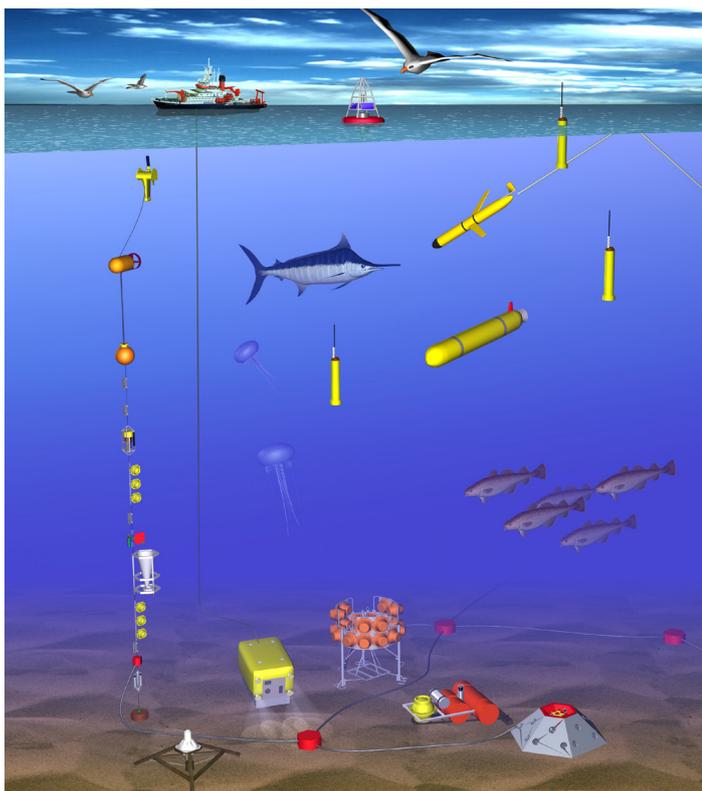
AtlantOS Optimising and Enhancing the Integrated Atlantic Ocean Observing System is a large scale research and innovation project funded by the European Commission's (EC) Horizon 2020 work program topic BG-8-2014 Developing in-situ Atlantic Ocean Observations for a better management and sustainable exploitation of the maritime resources. The project proposes the integration of ocean observing activities across all disciplines for the Atlantic, considering European as well as non-European partners. The consortium consists of 62 partners (research institutes, universities, marine service providers, multi-institutional organisations, international partners and the private sector) - from 18 countries (13 EU and 5 non-EU). The project is coordinated by GEOMAR in Kiel, Germany (Prof. Dr. Martin Visbeck). The project lifetime is from April 2015 to June 2019.

The Atlantic ocean provides major trade routes, contributes to the oxygen we breathe, supplies much of the fish we eat and plays an important role for the climate. In order to understand and manage the challenges we are facing due to environmental changes we are encouraged to develop a sustainable, well-coordinated and comprehensive in-situ ocean observing system to jointly deliver integrated ocean information to assess current trends and predict future scenarios. AtlantOS will transform existing observing into a more integrated, more effective, and more sustainable observing system for the Atlantic Ocean. Hence, it will be a regional contribution to the Blue Planet Initiative under GEO (Group on Earth Observation) and the Global Ocean Observing System (GOOS). Consequently, AtlantOS strongly supports the Galway Statement on Atlantic Ocean Cooperation that was signed in 2013 and which connects actors in Europe with those in the United States and Canada having the common vision to better understand the Atlantic Ocean and to promote the sustainable management of its resources.

The AtlantOS structure takes strategic guidance from the Framework for Ocean Observation developed by the post-OceanObs'09 task team applying an engineering system thinking to the complex system behind ocean observing; considering the input/requirements (orange), the process/observations (purple) and the output/data and products that feed the scientific and societal benefits as the source of the requirements.



AtlantOS work structure



Schematic sketch of ocean observation (illustration by M. Müller, GEOMAR)

