PRESS RELEASE

Brest, 9 October 2018

Putting the spotlight on ocean observation, the key to understanding climate change: a workshop on interoperability technologies and best practices in environmental monitoring (Brest, 10-12 October)

Environmental monitoring and data acquisition, across time and space, are the keystone to improving knowledge on the ocean. Conventional wisdom has it that we know less about the ocean than about the surface of the moon! In fact, the first real-time ocean observatory systems were set up only 40 years ago. Ocean observation is thus a recent scientific activity that is developing as fast as technology and available funds allow. For the European and international scientific community that strives to answer questions on the current environmental changes, it is urgent to better manage and coordinate data collection, processing and analysis. Data standardisation and sharing are at the heart of this scientific workshop organised jointly by four European research infrastructures JERICO-NEXT, EMSO-ERIC, ATLANTOS and *ENVRIplus, which collectively bring together more than 100 partners.*

Ocean observation, a major task at hand

Today, various research communities in Europe are monitoring the ocean. Although each of them has adopted its own angle, studying either coastal areas, the open sea (Atlantic Ocean) or the water column (from the surface to the seafloor), they all work together closely. They have understood that cooperation and coordination can enhance efficiency in human resources and observation techniques and help avoid needless competition between Member States.

Thanks to support from the European Union, these research communities all have specialised observation systems, distributed along European coasts:

- **AtlantOS** is a European project that aims to set up an integrated ocean observation system for the Atlantic Ocean, to better understand and manage the issues arising due to environmental change and to facilitate access to the ocean data and information necessary to assess current trends and predict future scenarios. AtlantOS includes 62 partners from 18 countries (13 EU and 5 non-EU). https://www.atlantos-h2020.eu/
- **JERICO-NEXT** is a European project dedicated to the improvement and the coordination of coastal observatories in Europe. It includes 34 institutes from 15 countries. http://www.jerico-ri.eu/
- **EMSO** is a European-distributed, large-scale, long-term research infrastructure, based on the integration of fixed-point observation platforms in the ocean, deployed at key sites in European seas, on the seafloor and in the wtare column. The main goal of EMSO is to acquire measurements of environmental and physical parameters at the highest-ever resolution. These data are analysed or plugged into models to better describe and understand global change, natural hazards and deep-sea ecosystems. http://emso.eu/
- **ENVRIplus** is a European project bringing together environmental and earth system research infrastructures, projects and networks to create a coherent, interdisciplinary and interoperable cluster of environmental research infrastructures across Europe. http://www.envriplus.eu/

IFREMER Press Office: Arthur de Pas or Muriel Keromnes – +33 298 224 107 or +33 298 224 646 – +33 649 321 383 - presse@ifremer.fr

PRESS RELEASE

The challenge underlying integrated observation activities is the harmonisation of data quality.

Providing consistent, accessible and reusable data, is the next major challenge for integrated ocean observatories. For example, the data collected in England must be comparable to the data collected in France, that is undergoing the same processing and qualifications processes, with the same units of measurement and the same file format.

This standardisation of data management has already begun in the above-mentioned scientific communities. Efforts must continue to align their practices in terms of data acquisition, collection, data characterisation and data dissemination to compile interoperable databases of comparable data. And that is the goal of this workshop.

Creation of a European research infrastructure dedicated to ocean observation in the near future?

Ocean observation systems (for coastal, open and deep seas, etc.) are the key for gauging effects of meteorological events eventually associated to climate change, assessing its impact and formulating oceanic and meteorological forecasts at various time scales (daily, seasonal, decadal); thus, the issue of their lifespan is of prime importance. Following in the footsteps of EMSO (already a permanent European Research Infrastructure Consortium (ERIC)), a similar, large-scale multidisciplinary research infrastructure made up of the partners from the JERICO-NEXT, ENVRIplus and AtlantOS projects should further foster the standardisation of data management and offer a solution for long-term funding. “European research infrastructures are tools that serve all scientific disciplines. They are multidisciplinary facilities that are essential for the advancement of knowledge in modern science” (source: “Very large research infrastructures” in *Stratégie nationale des infrastructures de recherche* (the French National Roadmap for Large-scale Research Infrastructures), 2018 edition).

The workshop will take place in Brest (at the Chamber of Commerce and Industry and IFREMER Brittany Centre):

Organisers -- IFREMER: Jérôme Blandin, Ingrid Puillat, Laurent Delauney, Virginie Thierry, Chantal Compère; HCMR: George Petihakis, Manolis Ntoumas; OGS: Rajesh Nair; HZG: Wilhelm Petersen; GeoMar: Eric Achterberg; CNRS: Mathilde Cannat, Déborah Chavrit; UPC: Joaquin del Rio.

(See the attached programme)

IFREMER Press Office: Arthur de Pas or Muriel Keromnes – +33 298 224 107 or +33 298 224 646 – +33 649 321 383 - presse@ifremer.fr