



European Maritime Day 2014 Stakeholder Workshop

**From marine observations and data to information, knowledge and Blue Growth:
Towards an integrated end-to-end European Ocean Observing System (EOOS)**

Monday 19 May 2014, 11:00 - 12:30

Kaisen Saal, Congress Center Bremen and Messe Bremen, Germany

Overview

This workshop will introduce, explore and define key components of a fully functional end-to-end system for European ocean observation, emphasising the need for close collaboration between science and industry for new technologies and new services in support of Blue Growth. It will provide insight in key efforts along the lifepath from marine observations and data up to information, products and knowledge for users such as the European Marine Observation and Data network (EMODnet) and the European Atlas of the Seas. It will showcase new sea-basin level approaches to evaluate marine data availability and observation capacity from a use-perspective and look ahead at current bottlenecks and future requirements.

Programme

- **Introduction to the European Ocean Observing System (EOOS)**
Erik Buch, EuroGOOS Chair and Session Moderator
- **In-situ and satellite ocean observations supporting maritime economic activities**
Bernd Brugge, Federal Hydrographic Agency (BSH), Germany & Johnny Johannessen, Nansen Environmental and Remote Sensing Center (NERSC), Norway
- **Making European observations and data available for users – The European Marine Observation and Data Network (EMODnet) and the European Atlas of the Seas**
Jan-Bart Calewaert, EMODnet Secretariat, Belgium & Vittorio Barale, European Commission Joint Research Centre (JRC)
- **New frontiers in operational ecology: an attempt to bridge the gap between biogeochemical models and data**
Alessandro Crise, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), Italy
- **The EMODnet Mediterranean approach for the assessment of observational data systems and targeted applications**
Nadia Pinardi, Istituto Nazionale di Geofisica e Vulcanologia (INGV), Italy

Organisers

Secretariat of the European Marine Observation and Data Network (EMODnet) www.emodnet.eu

Contact:

Jan-Bart Calewaert (Head, EMODnet Secretariat)
janbart.calewaert@emodnet.eu

European Global Ocean Observing System (EuroGOOS) www.eurogoos.eu

Contact:

Kostas Nittis (EuroGOOS Secretary General)
kostas.nittis@eurogoos.eu

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Key messages

Ocean observations are essential for marine science, operational services and systematic assessment of marine environmental status. All types of activity in the marine environment require reliable data and information on the present and future conditions in which they operate. Many maritime economic sectors (e.g. oil and gas exploration, maritime transport, fisheries and aquaculture, maritime renewable energy) directly benefit from easily accessible marine data and information in several ways: improved planning of operations, risk minimization through increased safety, improved performance and overall reduced cost. Other sectors, such as deep-sea mining and marine biotechnology, also benefit from specialized deep-sea observations that were not feasible until recently.

The complexity and high density of human activities in European seas and oceans result in a particularly high demand for marine knowledge in the form of data, products and services to support marine and maritime activities in Europe, stressing the need for an integrated European approach to ocean observation (Navigating the Future IV, European Marine Board 2013). While Europe already has a relatively mature ocean observing and data management infrastructure capability, this is largely fragmented and currently not addressing the needs of multiple stakeholders. Mechanisms for coordinating existing and planned ocean observations using a system approach are needed for more integrated, efficient and sustained observations under the context of a “European Ocean Observing System” (EOOS) following international practice (systems developed by USA, Australia and Canada) and the EurOCEAN 2010 Conference Declaration.

There is a need for a science-industry partnership to develop a successful EOOS that will further enhance the contribution of marine observations to economic activities relevant for Blue Growth in Europe. Indeed, innovative technologies, developed in collaboration between research scientists and the industry, have provided several solutions during recent years for more robust, multi-parametric and systematic observations. This, in turn, is leading to new and more reliable operational services that support a wide range of maritime economic activities: fisheries and aquaculture, offshore oil and gas, marine renewable energy, maritime transport, tourism etc. Other services address the sectors of marine safety, climate and weather applications, as well as marine environmental assessment.

The integration of different national and local marine data systems into a coherent interconnected whole that provides free access to observations and data, as pursued by the European Marine Observation and Data Network (EMODnet), is of key importance for maritime sectors such as fisheries, the environment, transport, research, enterprise and industry. However, much work remains to be done in close collaboration with end-users, particularly industry, to further develop EMODnet into a fully functional, fit for purpose gateway to European marine data and data products (www.emodnet.eu).

At the end of the marine observation - data - knowledge cycle, activities and tools are needed to create added value products for specific stakeholders, including the wider public. An example is the European Atlas of the Seas, which allows professionals, students and others to explore Europe’s seas and coasts, their environment, related human activities and European policies. At the same time, it is critical to evaluate whether we are monitoring/observing what we actually need. In this regard, regional level assessments such as those carried out by the newly-established EMODnet sea-basin checkpoint projects, amongst others, could provide relevant information to Member States about the requirements for essential and optimal observation capability.

