Building a European Ocean Observing System

European Parliament Event, 8 September 2016, Brussels
Hosted by Ricardo Serrão Santos, MEP

On 8 September, the first EOOS conference took place at the European Parliament hosted by Member of the European Parliament Ricardo Serrão Santos. The event, entitled '**Building a European Ocean Observing System**' attracted over 70 participants from across Europe, as well as many representatives of the European Commission's Directorate General for Research and Innovation, Maritime Affairs and Fisheries, Environment, and Internal Market, Industry, Entrepreneurship and SMEs. All those Commission directorates general have taken action towards achieving sustainable management of the ocean, with the help of funding programmes and legislative instruments and strategies related to ocean observing and data collection. Several Members of the European Parliament joined MEP Ricardo Serrão Santos and contributed to the event, including Gesine Meissner, Marco Affronte, and Stefan Eck.

Eminent speakers and panellists of the event explained why an integrated ocean observing system is required for Europe, and demonstrated the risks and losses linked with insufficient and not sustained ocean observing and data collection. The EOOS vision was explained in the context of global environmental policies, including the recent G7 Leaders Statement (May 2016), the COP21 Paris Agreement (December 2015) and the development of a report on the ocean's role in climate by IPCC agreed in April 2016 (IPCC Special Report on 'Climate Change, the Oceans and Cryosphere', to be released as part of the IPCC 6th Assessment Report cycle), as well as the UN's Sustainable Development Goals (September 2015) a number of which require ocean observing knowledge and information (especially the dedicated SDG 14 to 'Conserve and sustainably use the oceans, seas and marine resources').

The critical state of the ocean health on the one hand, and the significant economic value of the ocean economy on the other, have put a strong emphasis on ocean observing to deliver knowledge, information and services to a wide range of science, technology and innovation users. Those policies and statements clearly demonstrate that this has been recognized at the highest political level.

MEP **Ricardo Serrão Santos**, the host and chair of the event, stressed that ocean provides a crucial life support service, and to understand and predict the ocean system as a whole it is mandatory to observe it. However, observations at sea are much more challenging compared by those at land and cooperation in science and technology, data sharing and capacity building are critical. Furthermore, partners across all spheres must learn to speak the same language, and the EOOS focal point can play an important role in achieving this.

EuroGOOS Secretary General **Glenn Nolan** presented the complexity of the current European ocean observing landscape. European ocean observing is predominantly funded at the countries' level, with much coordination taking place at the pan-European level (e.g. through European Commission contracts). On top of that, regional collaboration efforts also play a very important role. Those disparate components of the ocean observing system aren't linked by an overarching strategy, often lack sustained funding required for continuous data collection, as well as aren't represented with a single voice to the policy and decision makers. The vision for EOOS is to fill those gaps, both by creating synergy among the existing efforts, and generating new projects in a strategic way, while avoiding overlaps and duplication.

IOC Executive Secretary **Vladimir Ryabinin** expressed his support to the EOOS concept underpinning the global requirement for marine knowledge and sustained data collection. Many of the world's most populated and fastest growing cities are at the coast, he explained, stressing the requirement for a connected observing system, from coast to open ocean. He called on Europe to use the enormous potential of its infrastructure capacities, knowledge and resources to take a leading role in the development of the world's ocean observing.

DG MARE Director for Atlantic, Outermost Regions and Arctic **Bernhard Friess** said that with the fast growing world population, the oceans have to take on a role that the land cannot provide in the future. More data and of a higher quality are required for our informed decisions and effective forecasts. On the need for sustained observations, Bernhard Friess quoted an article in Nature explaining that '*There is only one Earth, with only one history, and we get only one chance to record it. Ideas not followed through can be taken up again later. A record not made is gone for good*'. Furthermore, Director Friess stressed that the value of ocean cannot be measured in economic terms only.

This point was seconded by **Jan-Stefan Fritz**, who presented the current efforts to assess the value of the ocean. He also pointed out that marine scientists will take a new role in the world, working across many disciplines, and being more active in communicating results outside of their communities.

Martin Visbeck, GEOMAR, Germany, and Coordinator of EU H2020 AtlantOS project, emphasised that marine data are needed for a wide range of uses, and their quality and interoperability are critical. Moreover, progress towards achieving Sustainable Development targets will build on reliable and open access to ocean information. Technological and infrastructure collaborations are required to advance EOOS, as well as partnerships with industrial users of the ocean space, e.g. ship builders, certifiers and ship operators can provide in-situ observing on ships.

Joaquin Tintoré, SOCIB, Spain, elaborated on the link between science, technology and society. Information on the ocean state and variability at different temporal and spatial scales is important and that cannot be oversimplified, e.g. for different purposes data over different time scales is required, from time series [long period of time] to synoptic data [simultaneous data from one or many observing platforms]. Communities need to work together across all uses of the ocean space and ocean information. Technological innovations are opening new exciting opportunities and EOOS can help science and technology stakeholders work together.

These are exciting times, further shared **Amanda Bates**, University of Southampton, UK, stressing both the technological developments and new scientific discoveries in marine sciences. In biology scientists are only discovering some interlinks in the marine world, from genes to species to global ecosystem levels. Those complex links are very much scale dependent. Baseline data on marine biology are critical, she stressed, to gain our understanding of the complex marine environment and provide evidence for management actions and commercial exploitation.

Niall McDonough, Executive Secretary of the European Marine Board, summarized that EOOS will strive to support systematic and sustained ocean observations and create a focal point for European ocean observing. He introduced the EOOS consultation document prepared by the EOOS steering group convened by EuroGOOS and EMB. An open consultation will be launched in mid-autumn to collect views and ideas from European ocean observing stakeholders.

During the panel discussion moderated by **Jacky Wood**, JPI Oceans, MEP **Marco Affronte** shared a word of caution regarding the expansion of the ocean's economic potential while some basic

knowledge is still missing. MEP **Gesine Meissner** stressed the importance of marine protected areas to replenish the ocean's resources. **Sigi Gruber**, Head of Marine Resources Unit at DG R&I, emphasised the need to inform society of the importance of the ocean as life support system. The need for ocean literacy and outreach was further highlighted by the panel. Scientists have a role to play in educating society about the ocean, but also in being more pro-active in taking part in policy making.




Ricardo Serrão Santos concluded the event with a call for EOOS to engage with a wide range of ocean observing stakeholders, science, industry, civil society, policy. The ocean is changing and marine data should be collected continuously and made openly available for the benefit of all users. He closed the meeting with an inspiring quote by Sylvia Earle '*With every drop of water you drink, every breath you take, you're connected to the sea. No matter where on Earth you live'*.

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From left: Joaquin Tintore (SOCIB, Spain), Dina Eparkhina (EuroGOOS), Jan-Stefan Fritz (KDM, Germany), Ricardo Serrão Santos (MEP), Martin Visbeck (GEOMAR, Germany), Glenn Nolan (EuroGOOS), Amanda Bates (University of Southampton, UK), Marco Affronte (MEP), Bernhard Friess (EC EG MARE), Niall McDonough (EMB), Sigi Gruber (EC DG R&I), Vladimir Ryabinin (UNESCO IOC), Jacky Wood (JPI Oceans), Gesine Meissner (MEP)

Event's agenda, presentations and photos are available at:
http://eurogoos.eu/events/eoos-event-european-parliament/