

Euro-Argo, an essential asset for the global ocean observation landscape

By unifying their ocean observation capability within Euro-Argo ERIC, European countries have a real impact on the international scene.

With approximately 4000 floats deployed around the world, Argo is the prominent ocean observation infrastructure on Earth. But it is not the only one. The Global Ocean Observing System, or GOOS, is composed of approximately 10 000 in-situ observational platforms including Argo floats, research vessels, mooring buoys, gliders and others. Euro-Argo is a major part of GOOS as it supports research and development on Argo instruments and sensors as well as floats deployment in European and International seas. To fulfill this task, Euro-Argo collaborates with OceanOPS, a joint centre of the World Meteorological Organization and the Intergovernmental Oceanographic Commission of UNESCO, that provides operational coordination for GOOS.

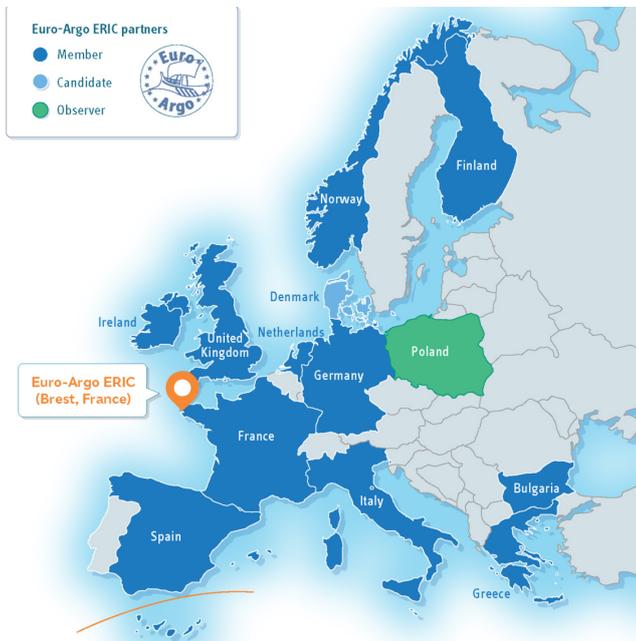
“We collaborate everyday with Euro-Argo to improve the global coverage of Argo floats by identifying regions with few floats and by looking for deployment opportunities, explains Victor Turpin, Technical Coordinator at OceanOPS. “That’s how European floats are deployed all around the world where we need them.”

EuroGOOS
44 organizations
18 European countries

The European Global Ocean Observing System (EuroGOOS) is one of Euro-Argo ERIC’s main partners. The European component of GOOS gathers 44 organizations in 18 different countries, specialized either in observation techniques or forecasting modeling. EuroGOOS’s mission is to coordinate its members’ activity so that everyone, from the fishing and tourism industries to citizens, can benefit from high quality data about sea level, coastal pollution, currents, etc. It also hosts an Argo task team. “With this task team, we act as facilitators and we prepare new countries to join the Euro-Argo ERIC,” says Inga Lips, Secretary General at EuroGOOS. Five new countries are currently interested in joining the existing 12 members of the consortium.



Victor Turpin, Technical Coordinator and Emanuela Rusciano Science and Communications Officer at OceanOPS © Inua production

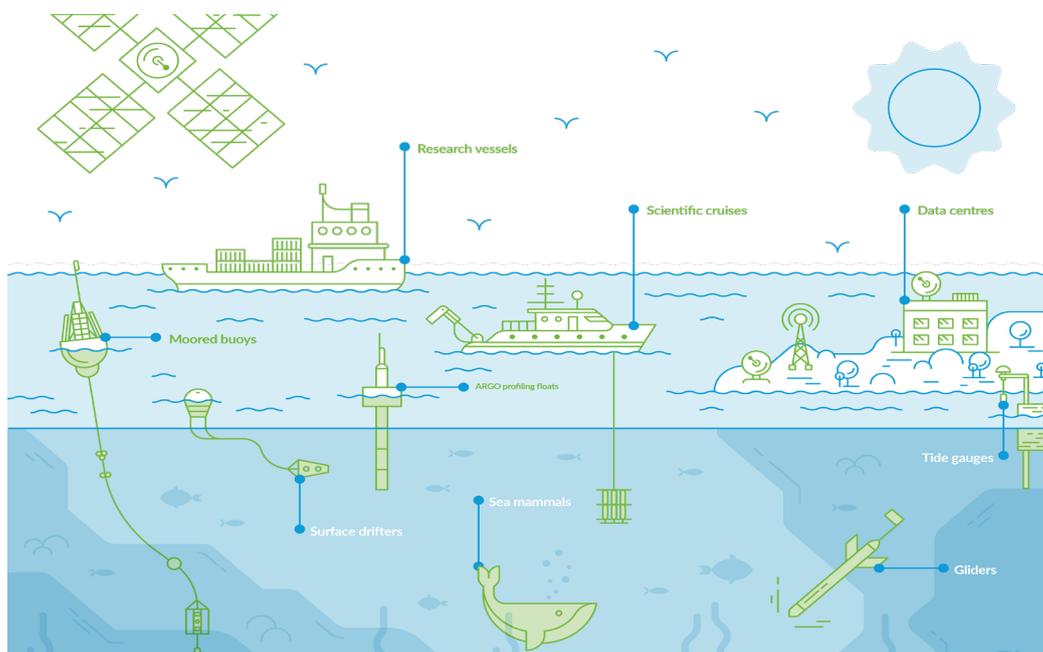


12 member countries of the Euro-Argo consortium, including Poland - a Candidate Member and Observer © Euro-Argo

“At a global scale, the United States provides most of GOOS’ firepower,” states Mathieu Belbéoch, OceanOPS manager. “But by joining forces via structures like Euro-Argo, European countries can have a real impact on the international scene.” Among its missions, Euro-Argo harmonizes the work of all its members, so organizations like OceanOPS only have to speak with one entity instead of twelve. “Euro-Argo centralized deployment plans for instance, and this kind of coordination is very helpful for us. “Euro-Argo sets an example as a centralized European agency with shared services and strong coordination of its members, and this ambition tends to bring the European ocean observation community together.”

According to Mathieu Belbéoch, “the next step for Euro-Argo would be to become a more operational infrastructure in Europe for Argo: ordering of instruments, checkups, clearances and deployments for Members, towards global and European goals, scale economy and efficiency.” OceanOPS and Euro-Argo collaborate on the European-funded Euro-Argo RISE (Research Infrastructure Sustainability and Enhancement) project, by co-developing tools and indicators to monitor floats’ life expectancy, performance and data flow, documenting best practices for deployments in Exclusive Economic Zones (EEZs), and by tailoring these tools to European needs.

At an international level, even if Argo provides the majority of GOOS’s data, the floats can’t suffice by themselves. All the existing in-situ ocean observation systems complement each other: gliders are very mobile and useful to study extreme events but they lack autonomy, research vessels can’t cover the whole world but they can measure a large array of different measurements, etc. To push GOOS further, “we should advance scientific and technological coordination with all ocean observing infrastructures and networks,” states Inga Lips. “When we will coordinate our observing activities better and share the data, we’ll get more and better knowledge about the processes and changes in the ocean.”



Examples of different in situ ocean observing platforms. © Copernicus Marine/ Mercator Ocean International



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The article was produced by Anh-Hoa Truong, an independent scientific journalist/ INUA Prod in close collaboration with Lillian Diarra (Mercator Ocean International) and Marine Bollard (Euro-Argo). It is one of a series of 10 articles showcasing Euro-Argo and its unique contribution to the international Argo program and the global ocean observing system, and how it is transforming ocean research and our understanding of the ocean.

This article is part of the EU4OceanObs Ocean Observing Awareness Campaign | Part 1: Euro-Argo
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