

# 4 EURO-ARGO, A KEY ASSET FOR THE GLOBAL OCEAN OBSERVING LANDSCAPE

By unifying their Argo Ocean Observation capacities within Euro-Argo ERIC, European countries have a real impact on the international scene.



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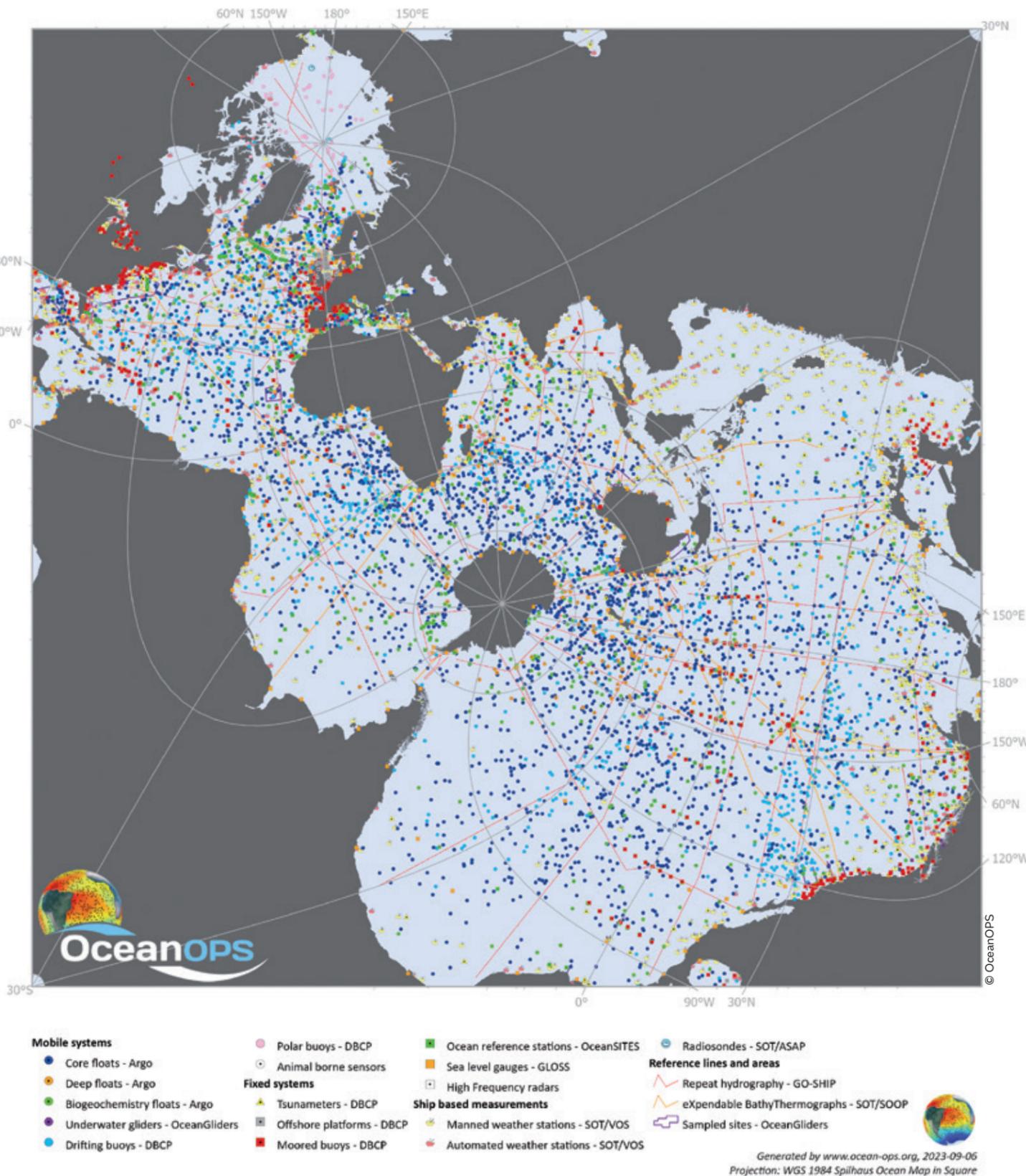
With approximately 4000 floats deployed around the world, Argo is the most prominent *in situ* Ocean Observation programme on Earth. But it is not the only one. The Global Ocean Observing System, or GOOS, comprises approximately 10 000 *in situ* observational platforms as various as Argo floats, research vessels, mooring buoys, gliders and others. Euro-Argo, the European contribution to the international Argo programme, is a major asset for GOOS, as it supports research and development on Argo instruments and sensors as well as floats deployment in European and international seas, and quality control of the data collected. To fulfill this task, Euro-Argo ERIC – the infrastructure which coordinates Euro-Argo – collaborates with OceanOPS, a joint centre of the World Meteorological Organisation and the Intergovernmental Oceanographic Commission of UNESCO, which itself provides operational coordination for GOOS.

“With this task team, we act as facilitators and we prepare new countries to join the Euro-Argo ERIC,” says Inga Lips, Secretary General of EuroGOOS. Five new countries are currently interested in joining the existing membership of the consortium. “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 ERIC, European countries can have a real impact on the international scene.” Among its missions, Euro-Argo ERIC harmonises the work of all its members, so organisations like OceanOPS only have to speak with one entity instead of thirteen.

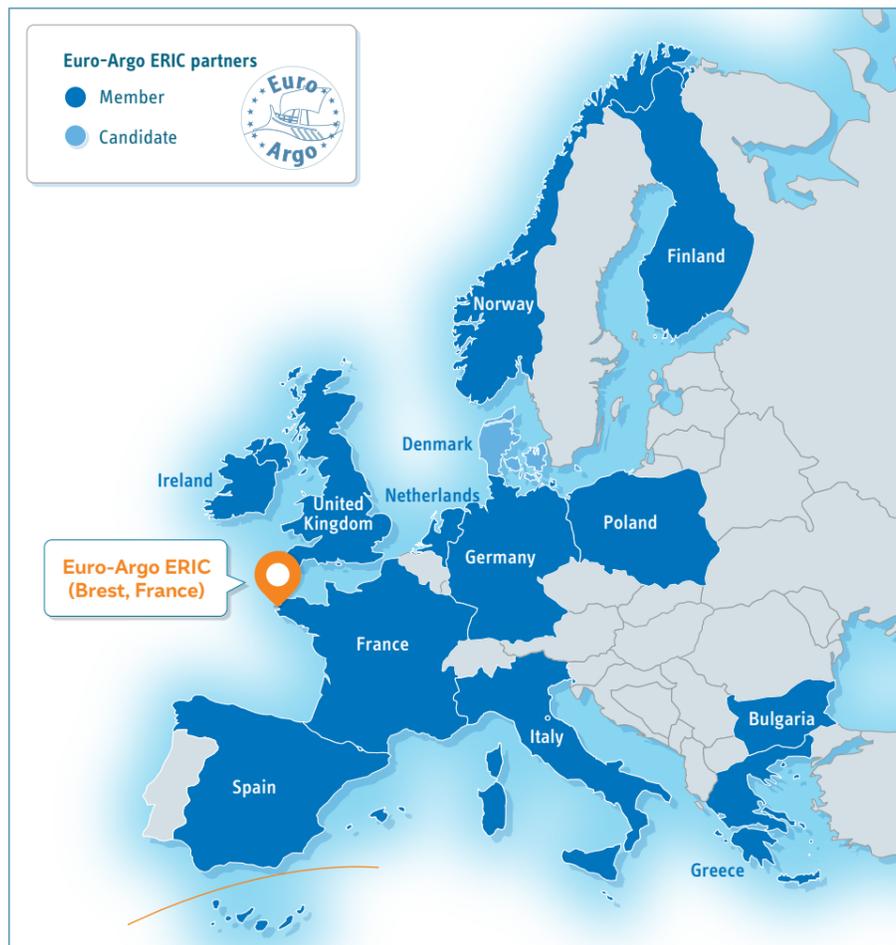
The European Global Ocean Observing System (EuroGOOS) is one of Euro-Argo ERIC’s main partners. The European component of GOOS gathers 46 organisations from 19 different countries which are specialised in operational observation systems and numerical modelling. EuroGOOS’s mission is to lead the development and implementation of sustained and coordinated operational oceanography across Europe so that everyone, from the fishing and tourism industries to citizens, can benefit from high quality data about sea level, coastal pollution, ocean currents, etc. It also hosts an Argo task team.

## WHAT IS GOOS?

GOOS provides countries and end-users with critical information on physical, chemical, and biological essential ocean variables, aimed at delivery for climate, operational services, and ocean health. The GOOS mission is to lead the Ocean Observing community and create the partnerships to grow an integrated, responsive and sustained observing system.



The Global Ocean Observing system in August 2023 with all the *in situ* operational platforms monitored by OceanOPS.



The Euro Argo consortium includes 12 members and Denmark is a candidate member.

**EuroGOOS**  
46 organisations  
19 European countries

“Euro-Argo concert deployment plans, for instance, and this kind of coordination is very helpful for us. Euro-Argo ERIC sets an example as a collaborative European infrastructure with shared services and strong coordination of its members, and this ambition tends to bring the European Ocean Observing community together.”

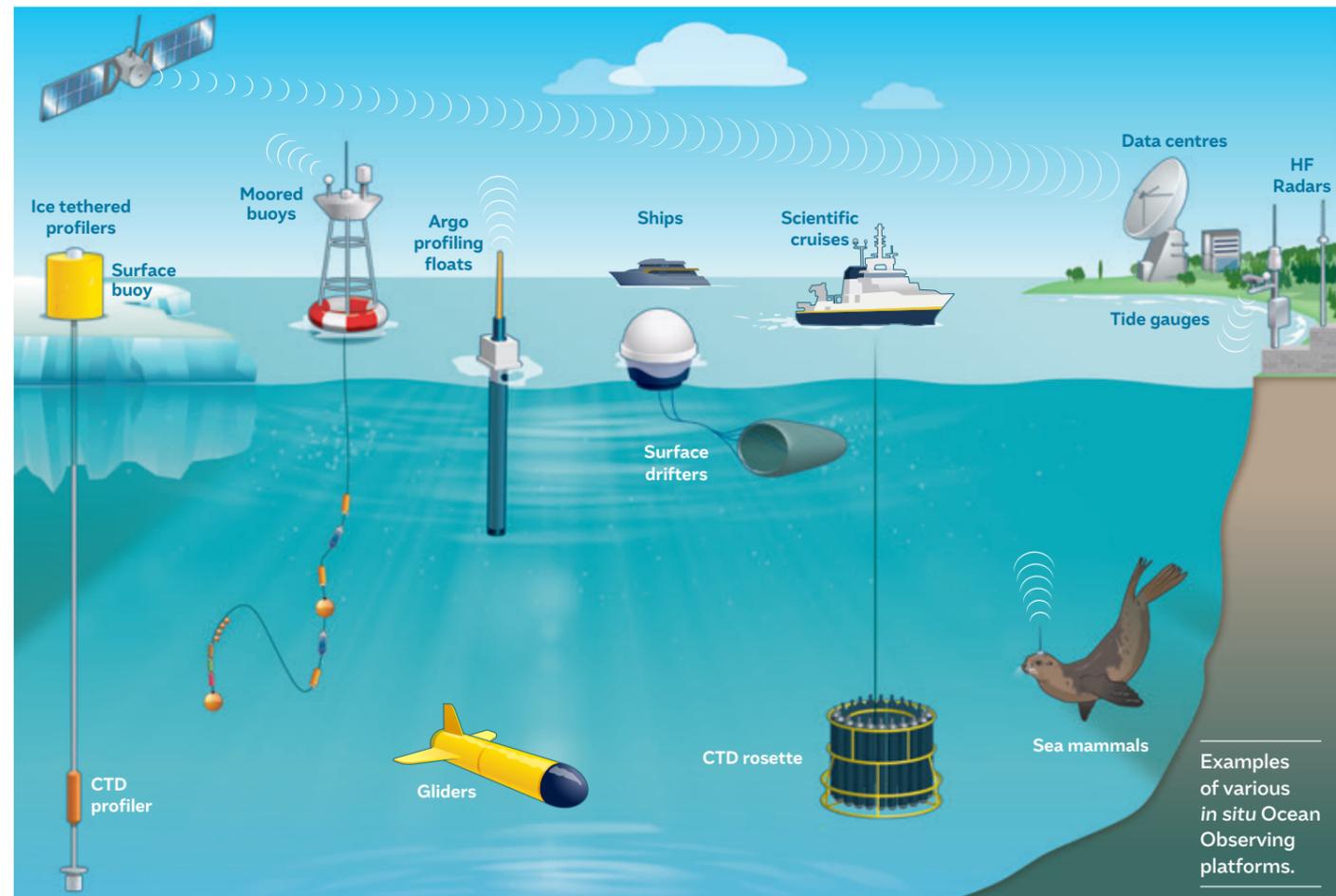
\* This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 824131

According to Mathieu Belbéoch, “the next step for Euro-Argo ERIC would be to become a more operational infrastructure for Argo in Europe, by extending its capacities to order instruments, perform checkups and clearances for members and, possibly also, deployments towards global and European goals, scale economy and efficiency.” OceanOPS and Euro-Argo ERIC collaborated on the 2019-2022 EU-funded project called Euro-Argo-RISE\* (Research Infrastructure Sustainability and Enhancement) 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 tailoring these tools to European needs.

At the international level, even if Argo provides the majority of GOOS' *in situ* data, the floats can't suffice by themselves. All the existing *in situ* Ocean Observing 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 various parameters, etc. To advance GOOS further, “we should advance scientific and technological coordination with all Ocean Observing infrastructures and networks, for a better knowledge about the processes and changes in the ocean” states Inga Lips.

### WHAT IS AN ERIC?

The European Research Infrastructure Consortium (ERIC) is a specific legal form that facilitates the establishment and operation, on a non-economic basis, of Research Infrastructures with European interest. The ERIC membership is made up, on a voluntary base, of EU Member States and associated countries. By 2022, 24 research infrastructures have been established as ERIC in fields as various as Energy, Environment, Health & Food, Physical Sciences & Engineering, and Social & Cultural Innovation. Euro-Argo ERIC was created in 2014 to coordinate and foster the collaboration between national Argo programmes.



Examples of various *in situ* Ocean Observing platforms.



A moored buoy.



A CTD rosette on board a research vessel.



A glider.

### FIND OUT MORE

- Video “Euro-Argo's contribution to the European Global Ocean Observing System”: <https://www.youtube.com/watch?v=cd-Z-uY-394>
- Global Ocean Observing System (GOOS): [www.goosocean.org](http://www.goosocean.org)
- European Global Ocean Observing System (EuroGOOS): [eurogoos.eu](http://eurogoos.eu)
- OceanOPS: <https://www.ocean-ops.org/board>

The article was produced by Anh-Hoa Truong, an independent scientific journalist/ INUA Prod in close collaboration with Marine Bollard (Euro-Argo ERIC) and Lillian Diarra (Mercator Ocean International). This article is part of the EU4OceanObs Ocean Observing Awareness Campaign | Part 1: Euro-Argo.

<https://www.eu4oceanobs.eu/oceanobserving-awareness/ocean-observing-awareness-euro-argo/>



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