



Claire Gourcuff, Euro-Argo Scientific Officer, explaining the float cycle to a classroom who joined the “Adopt a float” initiative.

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8 OCEAN LITERACY: EMPOWERING PEOPLE TO TAKE DIRECT AND SUSTAINABLE ACTION

The Argo floats and the ocean observing system provide an unprecedented opportunity to raise public awareness about our seas and the crises they endure.



The Ocean Observers website is enriched with educational resources about in situ Ocean Observing networks by the international working group launched in 2017: www.oceanobservers.org

As Deputy Head of the EMODnet secretariat, the European Marine Observation and Data Network, Kate Larkin knows too well how our ocean has been changing in recent years. Last year though, one particular map caught Kate Larkin’s attention. “When our network compared data before and during the Covid-19 pandemic, we were shocked: we really saw how much human activities like fishing or other vessel traffic had stopped or slowed,” says Kate Larkin. “If a pandemic can reduce human activities and their negative impact on our seas, we, as a society, should be able to find sustainable ways to reduce these activities.” Ocean Literacy, i.e., empowering people to better understand how the ocean influences our life and how we influence the ocean, is one pillar of the United Nations (UN) Decade of Ocean Science for Sustainable Development and the UN Sustainable Development Goals (SDG). Joint ini-

tiatives such as the EU4Ocean Coalition for Ocean Literacy connect diverse organisations, projects and people contributing to foster Ocean Literacy and the sustainable management of the ocean. The initiative is funded by the European Union and includes three communities representing professional stakeholders (Platform), Youth (Forum) and Blue Schools (European Educational Network).

WHAT IS ARGO?

Argo is an international programme that collects information from inside the ocean using a fleet of robotic instruments that drift with the ocean currents and move up and down between the surface and down to 6 000 metres deep. Each instrument, called float, spends almost all its lifetime below the surface.



Young students adopted and signed floats on board research vessel SA Agulhas II in Saint Denis (La Réunion) (above) and in Victoria (Seychelles) (on the right). The latter has been signed by H.S.H. Prince Albert II of Monaco and ministers of the Seychelles in order to attest their support to ocean education.



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Since 2017, Euro-Argo, the European contribution to the international Argo programme, and OceanOPS, an international organisation of the UN that coordinates, monitors and helps the implementation of the Global Ocean Observing System, have been working together on the Ocean Observers Initiative.

We bring together stakeholders, scientists, and communicators involved in marine sciences and science-based outreach activities, as well as teachers from all around the world to share experiences on educational activities related to *in situ* Ocean Observations, and thus federate them in an international educational network around a well-coordinated programme,” explains Emanuela Rusciano, OceanOPS’ Science and Communication Officer. Together with the Euro-Argo officers Marine Bollard and Claire Gourcuff, Emanuela Rusciano has organised workshops and created a website to assemble educational materials and activities on a global Ocean Observation learning platform oceanobservers.org.

According to Emanuela Rusciano, *in situ* observing instruments like Argo floats are ideal education tools helping to humanise Ocean Observations. “Speaking to the public at large and raising awareness about physical oceanography is still a complicated matter and requires experience and expertise,” she notes. “Bringing actual instruments into classrooms allows us to more easily explain to students the importance of these tools and why they should care about ocean data, which supports scientific knowledge and essential services needed by all sectors of society.”

Introducing floats to classrooms is exactly what the adopt a float programme is about. “As a researcher, I’ve always thought that it is important to reach out to the young public and, in this way, give something directly back to the taxpayers who pay for my salary,” says Hervé Claustre, a senior scientist member of Euro-Argo.

When he’s not doing research with Argo, he and his colleague Carolyn Scheurle are fully invested in the international adopt a float programme. With the help of a science mediation team and accompanied by science mentors, classrooms of all school levels literally adopt profiling floats. The students give a name to it, draw a logo and can familiarise themselves with Argo technology and science. Moreover, they are able to track it in real time on an interactive map. Thanks to interactions with scientists, working with these observational tools then opens to complementary ocean topics and ocean sciences. And, sometimes, the sailor and/or the scientific team in charge of the float deployment also shares onboard experiences with the students. “As scientists, and as one of our missions, we need to prepare society for the long-term future,” says Hervé Claustre. “Informing kids and teens, training them on scientific approaches and raising awareness among these future voters who will decide political



A classroom adopted a float in Brittany, France. Two scientists from Euro-Argo ERIC presented the float and explained some scientific concepts to the kids.

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directions is just as important as doing good quality research.” Carolyn Scheurle won a French National Centre for Scientific Research (CNRS) medal in 2022, an award in science communication, for her work leading the adopt a float educational programme.

A key communication tool for the ocean is the European Atlas of the Seas. “We select the most socially relevant maps from EMODnet, Copernicus, Eurostat, etc., and we provide stories and abstracts explaining why this data is important,” explains Kate

Larkin. Recently, she and her colleagues have also worked with professional educators to create teaching resources, such as quizzes and activities for different age groups. For Kate Larkin, it’s crucial to find positive ways to engage and inspire people. “If you offer a map where, for instance, they can check the status of either a beach where they like to go surfing or a coast where they like to sail, they may realise how much they depend on it and value it,” she says. “And if they value it, they will take steps to make some significant changes.”

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.

FIND OUT MORE

- **Ocean Observers:** <https://www.oceanobservers.org/>
- **Adopt a float:** <https://adoptafloat.com/>
- **EU4Ocean Coalition for Ocean Literacy:** <https://www.marineboard.eu/eu4ocean-coalition-ocean-literacy>
- **Copernicus:** <https://www.copernicus.eu/en>
- **Eurostat:** <https://ec.europa.eu/eurostat>

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



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