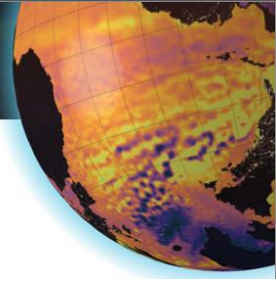


European contribution to the OneArgo array

Argo is a major component of both the Global Ocean Observing System and the Global Climate Observing System, providing near-real time data for ocean and atmospheric services and high-quality data for climate research. The initial Core Argo mission aimed to measure temperature and salinity in the upper 2,000 metres of the global ocean from 60°N to 60°S. Successful pilot studies carried out in the 2010's have shown the potential and the technology readiness of Argo to extend its mission towards greater depths and biogeochemistry (BGC). Since 2020, Argo is progressively transitioning to OneArgo, an enhancement of the programme which adds geographical extensions (marginal seas, Polar Mission) as well as a BGC Mission and a Deep Mission (Roemmich et al., 2019). The Euro-Argo programme, coordinated by the Euro-Argo ERIC (European Research Infrastructure Consortium), represents the European contribution to the Argo international programme, as the sum of European national contributions from 13 countries plus occasional and targeted project-based contributions from the European Commission. Euro-Argo aims at maintaining $\frac{1}{4}$ of the global OneArgo array, with a regional perspective leant towards European marginal seas (Mediterranean, Black and Baltic seas) and the European part of the Arctic seas. The Euro-Argo strategy focuses on providing sustained high quality oceanic data to the scientific community to better understand the role of the Ocean in the Earth's climate and marine ecosystems. The technological advances in biogeochemical instrumentation on Argo floats have greatly improved the ability to gather data to support marine policies set up by the European Union. Argo is a major source of information for operational centres such as the Copernicus Marine and Climate Services and the European Centre for Medium-Range Weather Forecasts (ECMWF) in Europe, for the provision of ocean and weather forecasts and seasonal predictions. It also provides important in situ information for the calibration and validation of Earth observation satellites. Within this context, Euro-Argo is currently revising its deployment strategy for the next decade, taking into consideration specific European needs in terms of in situ ocean observations, while integrating within the European Ocean Observing System and contributing to the global OneArgo new ambitious design. We will present this strategy, including feedback received from Copernicus in the framework of the COINS project, and provide some highlights on the challenges for the years to come.



Claire Gourcuff, Euro-Argo ERIC, France; Alan Berry, MI, Ireland; Fiona Carse, UK Met Office, UK; Dimitris Kassis, HCMR, Greece; Birgit Klein, BHS, Germany; Kjell-Arne Mork, IMR, Norway; Giulio Notarstefano, OGS, Italy; Violeta Slabakova, IO-BAS, Bulgaria; Colin Stedmon, DTU, Denmark; S Siiriä, FMI, Finland; Andreas Sterl, KNMI, Netherlands; Virginie Thierry, Ifremer, France; Pedro Vélez, IEO, Spain; Waldemar Walczowski, IOPAN, Poland