



NAOS

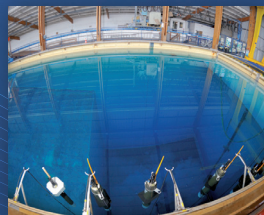
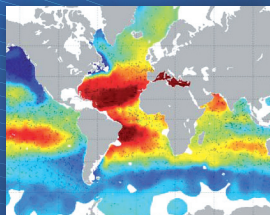
L'OBSERVATION GLOBALE DES OCÉANS



OBSERVING THE OCEAN TO UNDERSTAND AND PREDICT CLIMATE CHANGE: THE ARGO REVOLUTION



The NAOS project will strengthen the French and European contributions to the Argo international array of profiling floats and will prepare its evolutions for the next decade.



PARTNERSHIP

NAOS results from a strong partnership between IFREMER (coordinator), UPMC (co-coordinator), CNRS, UBO/IUEM (PRES UEB), SHOM, and two private companies: CLS for satellite telecommunication aspects and the NKE SME which is in charge of the industrialization and commercialization of French Argo floats.

THE ARGO INTERNATIONAL ARRAY

Argo is a global array of 3,000 autonomous profiling floats measuring in real time and every 10 days temperature and salinity throughout the deep global oceans, down to 2,000 metres. Maintaining the array requires deploying every year between 800 and 900 new floats.

Argo is now the major, and only systematic, source of information and data over the ocean's interior. It provides essential data for ocean and climate change research.

France is very active in all components of Argo: developing instruments, contributing to the array, data centre, research and operational oceanography, European coordination.

NAOS OBJECTIVES

- ▶ To consolidate the French contribution to the Argo international array by deploying 10 to 15 additional floats per year from 2012 to 2019 (total 110 floats). The French contribution to Argo should thus reach 70 to 80 floats per year.
- ▶ To develop and validate the next generation of Argo profiling floats. New float capabilities will include: improved performances (e.g. lifetime, transmission rates), integration of biogeochemical sensors, deeper measurements (3,500 m) and under-ice operations in the polar seas. 70 new generation floats will be deployed in three pilot areas : Mediterranean, Arctic and North Atlantic.

WORK PLAN

The project is structured into 5 main workpackages:

- ▶ **WP1:** Consolidation of the French contribution to Argo (Lead: Ifremer).
- ▶ **WP2:** Development of the next generation of French Argo floats (Lead: Ifremer).
- ▶ **WP3:** Biogeochemical floats in the Mediterranean Sea (Lead: UPMC/LOV).
- ▶ **WP4:** Biogeochemical floats in the Arctic Sea (Lead: CNRS/UMI Takuvik).
- ▶ **WP5:** Deep oxygen floats in the North Atlantic (Lead: UBO/IUEM/LPO).

www.naos-equipex.fr
naos@ifremer.fr

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Coordinator : Ifremer - P.Y. Le Traon : pierre.yves.le.traon@ifremer.fr

The project started in June 2011 and will end in December 2019. Prototypes will be developed and tested in WP2 from June 2011 to June 2014. Float deployments for WP1,3,4 and 5 will be carried out from mid 2012 to mid 2016.



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