

GROOM distributed infrastructure

Other EU infrastructures, Eurofleet, EuroArgo, FIX03, ...

GOOS, EuroGOOS, ROOSes



USER
e.g. process studies and operational oceanography

www/ftp

GDAC

GLIDER PORTAL

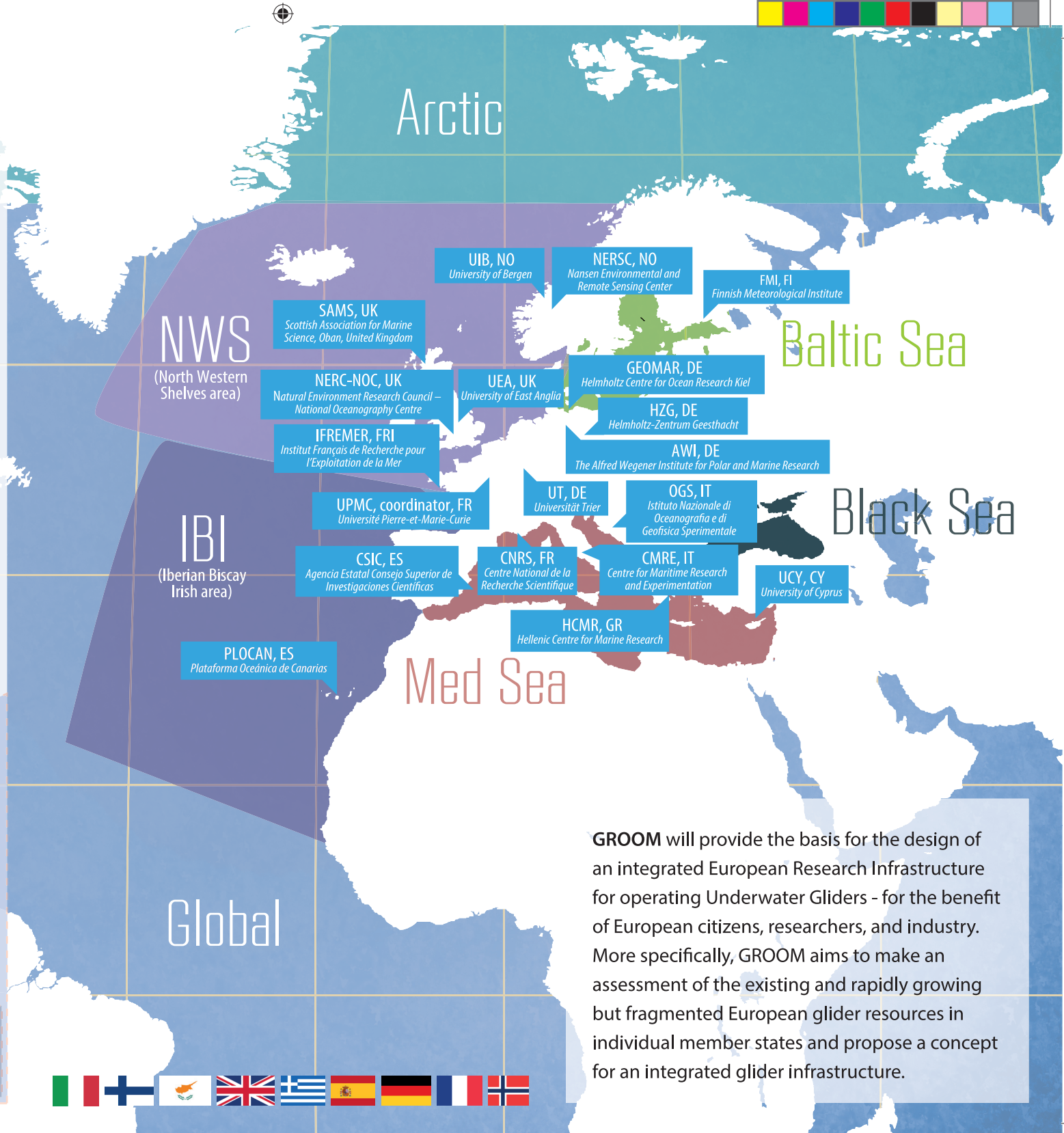
DAC
DAC
DAC

Data assembly center with real time data quality control

SCIENTISTS

GLIDERPORT A
GLIDERPORT B
GLIDERPORT C

The GROOM infrastructure includes all components: people, workshops, gliders, sea access, piloting tools, data management, governance



GROOM will provide the basis for the design of an integrated European Research Infrastructure for operating Underwater Gliders - for the benefit of European citizens, researchers, and industry. More specifically, GROOM aims to make an assessment of the existing and rapidly growing but fragmented European glider resources in individual member states and propose a concept for an integrated glider infrastructure.

MAIN PROJECT OBJECTIVES

GROOM HAS SET OUT TO DEMONSTRATE:

- > The CREATION and DISTRIBUTION of glider-ports in Europe, embedded into the global network of ocean observations.
- > Keeping cost to a minimum and providing EFFECTIVE COOPERATION and COORDINATION allowing the operation of glider fleets simultaneously with other traditional observing systems.
- > MAINTAINING a suitable glider infrastructure for continuous effective monitoring and research activities.
- > OFFERING a world-class service to those associated with research and environmental monitoring.

FILLING GAPS

OBSERVING SYSTEMS are permanent regional and global systems allowing the analysis and forecast of ocean variables, and support operational ocean services worldwide. Gliders are candidates to fill the gaps left by other devices such as Argo profiling floats, moorings and ships as they can remain in the sea for a long time, move over large distances and be sent to specific regions of interest. Gliders can operate remotely controlled over several months in the oceans. They provide multidisciplinary data in near-real time and complement the existing suite of ocean observations, in a unique way.

GLIDERS are underwater autonomous vehicles designed to observe vast areas of the interior ocean. They make use of their hydrodynamic shape and small fins to induce horizontal motions, while controlling their buoyancy.

The saw-tooth trajectory from surface down into the depths of the ocean can be done with minimal power consumption and long-term missions can therefore be organised.

Gliders have VERSATILE PAYLOADS and can be used to collect a large number of types of data. This includes basic ocean variables such as TEMPERATURE and SALINITY, but also BIOGEOCHEMICAL data, including oxygen or nitrates measured by optical sensors.

Gliders can host a wide range of sensors for physical, biological, chemical applications, and even for ocean acoustics or video.

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Related projects :



GROOM



A Design Study on a Glider European Research Infrastructure for the benefit of marine research and operational oceanography

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