



MACROES

IMPROVING UNDERSTANDING OF THE GLOBAL FUNCTIONING OF THE OCEAN SYSTEM

MACROES is aimed at enabling scientists to exchange and share ocean research in order to advance understanding of the Earth System (ES). The project's ultimate goal is to contribute to the range of choices open to those in government and to improve decision-making.

The project is one of the initiatives forming the Earth System Science Partnership (ESSP) that is examining the functioning of our planet and its dynamics. ESSP studies have already shown that modern-day human societies are responsible for major changes to the environment. The Earth System behaves in complex, closely interlinked ways that demand the integrated study of many different components, data and models for global changes to be predicted and controlled as effectively as possible. The tools that facilitate exchanges between the governing bodies of international institutions and the scientific community are therefore essential for us to draw up sustainable ES management strategies and to adapt to changes in the future.

The MACROES project will study the entire ES ocean component, offering a scientific view of pressing issues associated with climate, biogeochemistry, ecosystems and biodiversity, and of related global markets. MACROES will develop a 'Macroscope' for studying the impact of both climate change and fishing, how these interact with the structure and dynamic functioning of the ocean system, and will predict potentially deteriorating situations.

To ensure widespread dissemination, MACROES open data and accompanying digital models will be made available using an information-sharing tool for the scientific community and will be presented in an easily assimilated sample of global indicators.

Partners

Research centers

LPO, UMR 6523 CNRS Ifremer - IRD - UBO, Brest [\[Project Developer\]](#)
CERTAP, Université de Perpignan
EME, UMR IRD, Ifremer, Université de Montpellier Via Domitia
LEMNA, Université de Nantes
LMGEM, Centre d'Océanologie de Marseille
LOCEAN, Sorbonne Université, Paris
LSCE, CEA, Gif-sur-Yvette

Funder

- Agence Nationale de la Recherche

Labelisation

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2 983 K€