



## **The Copernicus Marine Environment Monitoring Service: a state-of-the-art European service to monitor and forecast the state and health of the global ocean and European regional seas.**

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The Copernicus Marine Environment Monitoring Service (CMEMS) is one of the six pillar services of the EU Copernicus program. Mercator Ocean was tasked in 2014 by the EU under a delegation agreement to implement the operational phase of the service from 2015 to 2021. The CMEMS provides regular and systematic reference information on the physical state, variability and dynamics of the ocean, ice and marine ecosystems for the global ocean and the European regional seas. This capacity encompasses the description of the current situation (analysis), the prediction of the situation 10 days ahead (forecast), and the provision of consistent retrospective data records for recent years (reprocessing and reanalysis). CMEMS provides a sustainable response to European user needs in four areas of benefits: (i) maritime safety, (ii) marine resources, (iii) coastal and marine environment, (iv) weather, seasonal forecast and climate.

An overview of CMEMS, its drivers, organization and service evolution strategy will be given. The presentation will then be focused on the essential role of R&D activities, on CMEMS achievements for its first phase (April 2015-April 2018) and main priorities for the second phase of CMEMS (April 2018-April 2021). Longer term (post 2021) service evolution issues and associated scientific challenges will be finally discussed.