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<u>Challenges for sustainable monitoring and evaluation of the EU Marine Strategy</u> <u>Framework Directive in the Atlantic offshore waters: the iFADO project.</u>

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Abstract

The European Atlantic Area in situ characterization/monitoring is challenging due to the high costs involved (24% of total EU waters for 12% of total population). The implementation of the EU Marine Strategy Framework Directive (MSFD) is complex if the objective is to extend periodic monitoring programs to offshore waters. Remote sensing and modelling have been recognised by the Copernicus Marine Service as suitable methodologies to characterise the global ocean both for nowcast and forecast.

iFADO (Innovation in the Framework of the Atlantic Deep Ocean, 2017-2021) is an Interreg Atlantic Area project which main objective is to integrate technologies, including remote sensing, numerical modelling and in situ monitoring, to ease management decisions from MSFD competent authorities. iFADO builds on the most recent technologies for data gathering and processing, suited for providing sustainable services to blue economy agents by fostering the regional quadruple helix cooperation (public sector, university/research centres, enterprise and citizens).

Keywords: remote sensing, numerical modelling, traditional monitoring, novel monitoring methodologies, MSFD, deep ocean, governance

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