



## **Monitoring and forecasting the global ocean mesoscale: A Mercator Ocean contribution to the MYOCEAN project**

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One of the main objectives of the European MyOcean project is to set up an integrated pan-European capacity for ocean monitoring and forecasting. So, the new global ocean forecasting system developed at Mercator Ocean is a first milestone to the MyOcean project. This global ocean forecasting system consists of (i) a global ocean and sea ice high resolution model with a horizontal resolution of  $1/12^\circ$  and 50 vertical levels based on the NEMO OGCM and (ii) a data assimilation scheme named SAM2v1 (based on the SEEK filter). This multivariate data assimilation system is able to assimilate both in situ and remotely sensed data (SLA, SST) in order to provide the initial conditions required for numerical ocean prediction. This new global ocean forecasting system offers a new perspective on the global ocean mesoscale monitoring but it needs high performance computing resources. Designs, results and future developments of this new global ocean forecasting system will be shown.