

REQUEST FOR ADDITIONAL RESOURCES IN THE CURRENT YEAR FOR AN EXISTING SPECIAL PROJECT

MEMBER STATE: FRANCE.....

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Project title: Improvement of the barotropic tide in the 1/12° global ocean NEMO model

Project account: **SPFRMORE**

Additional computer resources requested for	2019
High Performance Computing Facility (units)	2,800,000
Data storage capacity (total) (Gbytes)	0

Continue overleaf

¹ The Principal Investigator is the contact person for this Special Project

Technical reasons and scientific justifications why additional resources are needed

This is the second request for additional resources because this project used the global configuration at $1/12^\circ$ named MFC-GLO used in CMEMS which is a time consuming configuration especially since we explicitly solve the barotropic tides.

The computational cost of the ORCA012 is about 4,000,000 SBU per year and we made more than 3 months of simulation for our tests that gives more than 1,000,000 SBU.

The first simulations were made with a climatological initial conditions and in order to test the impact of the stratification in our tides simulations it was interesting to test a new initial conditions. Different tests have been done with an initial condition coming from the GLORYS reanalysis and the model only runs with a very small time step (90 second instead 360 s). A smaller time step leads to a larger computational cost that is why we exceeded our SBU quota.

Now, our simulations are completed for this year and we need 2,800,000 additional SBU to balance our resources.