



Ramonville St Agne, 31st August 2018

Dr. Peter BAUER, Deputy Director
Research Department
ECMWF
Shinfield Park
Reading RG2 9AX
United Kingdom

Re: PB-LM 18/116

Subject: Support letter for the Extreme Earth PP

Dear Dr. Bauer,

Mercator Ocean International (MOI) a leading global ocean forecasting center, was tasked by the EU in 2014 to implement the operational phase of the Copernicus Marine Service. MOI is an important actor of the Nucleus for European Modelling of the Ocean (NEMO) consortium in charge of the joint development of ocean and ice modelling tools in Europe.

As part of our activities, we are running global high resolution ocean (physics, ice and biogeochemistry) reanalysis, analysis and forecasting systems. Our plan for the next decade is to move towards resolutions of a few kilometers globally together with advanced data assimilation methods (ensemble methods) and increased complexity in the way our systems are coupled to wave/atmosphere/coastal/land components to better describe and forecast the oceans at fine scale. We are heavily dependent on high performance computing technology, software and data infrastructure.

We thus strongly welcome and support the ExtremeEarth-PP project for ExtremeEarth, a proposed FET Flagship Programme of the European Commission (EC). Our marine modeling community is facing important challenges with respect to the complexity of upcoming HPC hardware and software systems that require new and inter-disciplinary approaches. ExtremeEarth, if successful as a European Flagship, will have a major impact to solve them.

If the preparatory project is accepted, we are ready to work actively with the project team to help designing and be part of a future FET flagship initiative that takes into account long term needs of European operational oceanography community and, in particular, of the Copernicus Marine Service and its users/applications .

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'P. Bahurel'.

The Director General
Pierre BAHUREL

**MERCATOR
OCEAN**

INTERNATIONAL

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