



ESiWACE3 - Excellence in Simulation of Weather and Climate in Europe, Phase 3

HiPEAC25

Barcelona January 2025

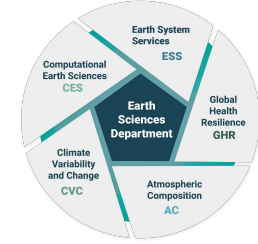
Earth Sciences Department (BSC)

Develop and implement **environmental modelling** and **forecasting** using process-based and AI models, focusing on **weather, climate, and air quality**



Transferring solutions to support the main **societal & environmental challenges** through service development.

- 170 people
- Funding from Horizon programmes, Copernicus and DestinE, private sector, ESA, Spanish, and regional governments
- Close link to local universities



**Barcelona
Supercomputing
Center**
Centro Nacional de Supercomputación

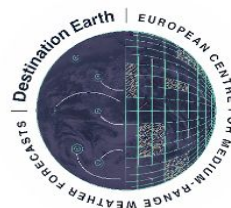


- Computer engineer-PhD (University of Granada, 2015)
- Since 2015, working at Earth Science Department at Barcelona Supercomputing Center and Co-leading the computational group with around 70 people.
- High Performance Computing applied to Earth System Models
- Working for national I+D projects and H2020/Horizon European Projects
- Expertise for HPC applied to weather and climate topics in the earth sciences department

ESiWACE3



Destination Earth



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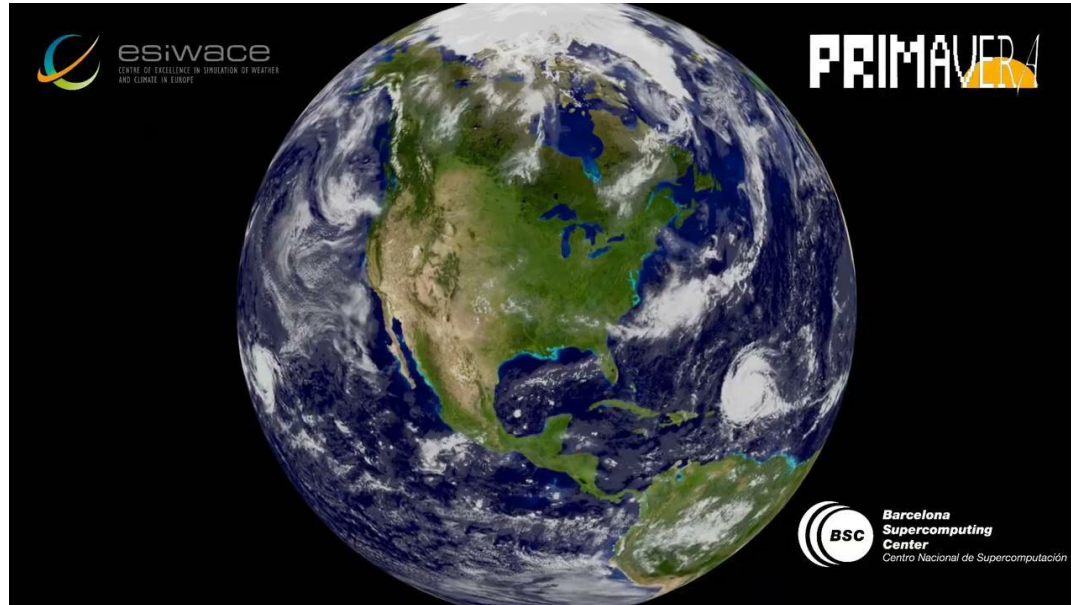
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European Digital
Twin Ocean

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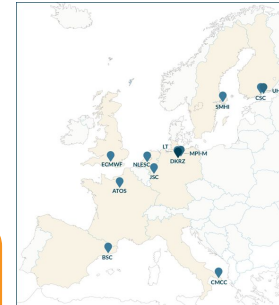
ESiWACE3 focuses to support the weather and climate modelling community to reach the excellence regarding exascale supercomputing



Coordinated



**Consortium of 12
partners from 8
different countries**



**Start: 1 January 2023
End: 31 December 2026**

Ocean at different resolutions using the EC-Earth model performed by Oriol Tintó (BSC)