



**Barcelona
Supercomputing
Center**

Centro Nacional de Supercomputación



Proposal for a Climate Prediction Working Group

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Objectives

Steer collaboration/synergies within the EC-Earth consortium on :

1. The investigation of sources and mechanisms of climate predictability on sub-seasonal to decadal timescales
2. The development on initialisation and ensemble generation techniques
3. The assessment of climate forecast quality on sub-seasonal to decadal timescales
4. The participation in coordinated international exercises such as DCPP

- ❑ Land surface (soil moisture, snow) and land-atmosphere coupling : ENEA, BSC, KNMI, ECMWF
- ❑ Ocean dynamics (thermohaline circulation) and thermodynamics (heat storage) : DMI, SMHI, KNMI, BSC
- ❑ Regional sea ice conditions and linkages toward the continents: SMHI, UCL, KNMI, BSC
- ❑ Stratosphere (QBO, aerosols) : BSC, ISAC-CNR

- ❑ Sea ice data assimilation : UCL, BSC
- ❑ Ocean reanalyses : ECMWF
- ❑ Atmosphere reanalyses : ECMWF
- ❑ Coupled initialisation : UCL, BSC
- ❑ Anomaly versus full-field initialisation : SMHI, BSC
- ❑ Stochastic physics and dynamics : ISAC-CNR, ECMWF,
BSC

3. Climate forecast quality



- ❑ Development of forecast quality scores and process-based metrics : UCL, SMHI, KNMI, ECMWF, BSC, ISAC-CNR
- ❑ Analysis of the development of biases in climate forecasts : BSC
- ❑ Development of calibration methods : BSC, SMHI, UCL, KNMI, ECMWF

- ❑ Joint proposals to PRACE or other competitive calls :
BSC, SMHI, IPMA, ISAC-CNR
- ❑ DCPP: SMHI, IPMA, BSC, ISAC-CNR
- ❑ S2S
- ❑ C3S
- ❑ EUROSIP



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EXCELENCIA
SEVERO
OCHOA

Thank you!

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