

EUCP: European Climate Prediction System

Description

The European Climate Prediction system project (EUCP) has four objectives, all directly relevant to the work programme, and fully meet the challenge, scope and impact of the work programme.

1. Develop an innovative ensemble climate prediction system based on high-resolution climate models for Europe for the near-term (~1-40years), including improved methods used to characterise uncertainty in climate predictions, regional downscaling, and evaluation against observations.
2. Use the climate prediction system to produce consistent, authoritative and actionable climate information. This information will be co-designed with users to constitute a robust foundation for Europe-wide climate service activities to support climate-related risk assessments and climate change adaptation programmes.
3. Demonstrate the value of this climate prediction system through high impact extreme weather events in the near past and near future drawing on convection permitting regional climate models translated into risk information for, and with, targeted end users.
4. Develop, and publish, methodologies, good practice and guidance for producing and using authoritative climate predictions for 1-40year timescale.

The system (objective1) will combine initialised climate predictions on the multi-annual timescale with longer-term climate projections and high resolution regional downscaling, using observations for evaluation. Methodologies will be developed to characterise uncertainty and to seamlessly blend the predictions and projections. Users will be engaged through active user groups. The system will be utilised (objective2) with users to co-produce information suitable for European climate service activities. A set of demonstrators will show the value of this information in realworld applications with user involvement (objective3). Key outputs will include disseminating and publishing the project's methodologies, and user-relevant data and knowledge (objective4).

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