



ENSEMBLES



An Integrated Project under the 6th Framework Programme of the EU



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Web site is <http://www.ensembles-eu.org>



The ENSEMBLES Project

- A five year project supported by funding under FP6 Started 1 September 2004
- Funding from EC of 15 million Euros
- About 66 partners from across EU, Switzerland, Australia, US
- Ten Research Themes (~300 page DoW)
- Project will be managed by a Management Board under the terms of a Consortium Agreement
- Follows on from/builds upon FP5 project (e.g. DEMETER, MICE, PRUDENCE, STARDEX)

Strategic Objectives

- Develop an **ensemble prediction system** based on the principal state-of-the-art high resolution, **global** and **regional Earth System models, validated** against quality controlled, high resolution **gridded datasets** for Europe, to produce for the first time, an **objective probabilistic estimate of uncertainty** in future climate at the **seasonal, decadal and longer** timescales
- **Quantify and reduce uncertainty** in the representation of physical, chemical, biological **and human-related** feedbacks in the Earth System
- Maximise the exploitation of the results by **linking the outputs to a range of applications**, including agriculture, health, food security, energy, water resources, insurance and risk management

Overview of Research Themes

RT1 James Murphy, Tim Palmer

- To build and test an ensemble prediction system based on global Earth System Models for use in the generation of multi-model simulations of future climate in RT2A.

RT2A Jean-Francois Royer, Guy Brasseur

- To produce sets of climate simulations and provide the multi-model results needed in other RTs: validation RT5, understanding processes RT4, as well as providing boundary conditions and forcing fields for regional model simulations RT2B.

RT2B Clare Goodess, Daniela Jacob

- To provide ensemble based regional climate scenarios and seasonal to decadal hindcasts for use in other RTs: understanding processes RT4, validation RT5, and impacts studies RT6.

RT3 Jens Christensen, Markku Rummukainen

- To provide improved climate model tools developed in the context of regional models, first at 50 km, later at 25 km resolution for specified sub-regions, including provision of a multi-model based ensemble system for regional climate prediction for use in RT2B.

RT4 Julia Slingo, Herve le Treut

- To advance the understanding of the basic science at the heart of the ENSEMBLES project, exploiting integrations performed in RT2A, linking with RT5 on the evaluation of the ensemble prediction system and feeding back results to RT1.

RT5 Antonio Navarra, Albert Klein Tank

- To perform a comprehensive and independent evaluation of the performance of the ensemble prediction system, including the production of high resolution observational dataset, and using integrations from RT1, RT2A, RT2B and RT3.

RT6 Andy Morse, Colin Prentice

- To carry out climate impact assessments, including linking impact models to ENSEMBLES probabilistic scenarios produced in RT2A and RT2B, in order to develop risk based estimates of impacts (e.g. floods, agriculture, forest fire, wind storm, etc.).

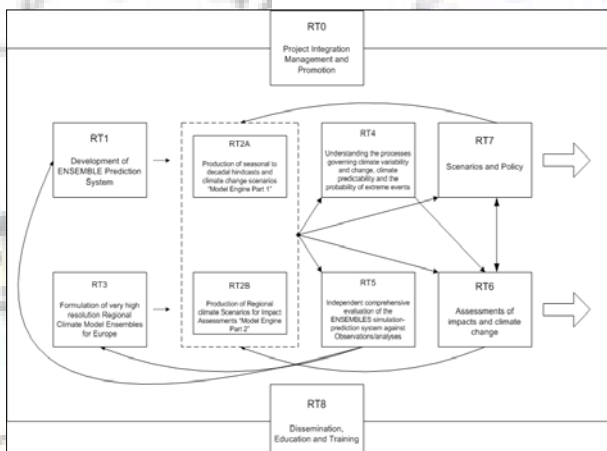
RT7 Richard Tol, Roberto Roson

- To provide scenarios of greenhouse gas emissions, land-use changes and adaptive capacity with and without greenhouse gas reduction policies, and test the sensitivity of these scenarios to climate change.

RT8 Martin Beniston, Christos Giannakopolous

- Represents the interface between the ENSEMBLES scientific consortium and a wider audience that includes scientists, stakeholders, policymakers and the general public.

Interaction between RTs



ENSEMBLES organisation

