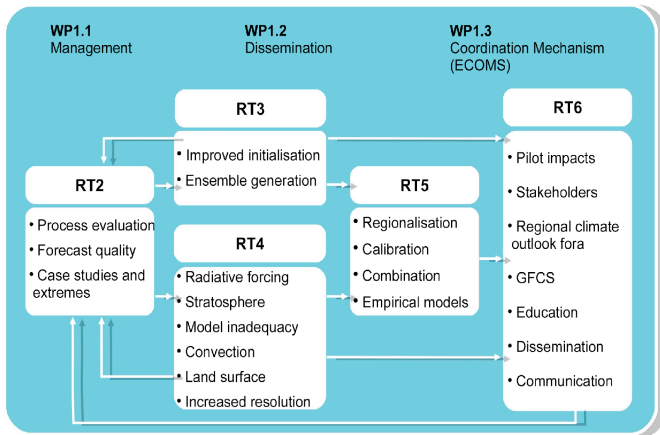


Overall concept and interactions in SPECS; the table lists the six participating global forecast systems and the partners that will use them.



WP1.1: SPECS Management  
 WP1.2: SPECS Dissemination  
 WP1.3: Coordination via ECOMS  
 across all FP7-Env.Projects:  
 EUPORIAS, NACLIM & SPECS

RT2: Evaluation of current s2d forecast systems  
 RT3: Forecast strategies  
 RT4: Improved systems  
 RT5: Calibrated predictions at the local scale  
 RT6: Towards climate services

Forecast System	CNRM-CM5	EC-Earth	IFS/NEMO	IPSL-CM5	MPI-ESM	UM
Project Partner	CNRM, CERFACS	KNMI, SMHI, IC3, ENEA	ECMWF, UOXF	CNRS	MPG, UHAM	UKMET

# The Impact of SPECS

The impact of SPECS consists in the provision of improved seasonal-to-decadal (s2d) climate forecast systems to relevant operational platforms, which include the European global producing centres (GPCs) of climate forecasts, the Regional Climate Outlook Fora (RCOFs) and the World Meteorological Organisation (WMO) Lead Centre for Long-Range Forecasts Multi-Model Ensemble (LC-LRFMME). Private operators and stakeholders are likely to benefit from the improved climate forecast systems. All these users will benefit from the comprehensive documentation generated on the usefulness of s2d forecast systems for several socio-economic sectors. This material will be the basis of a new generation of European climate services acting on s2d time scales.

# CONTACT US

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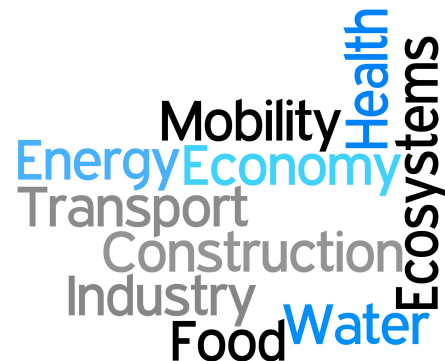
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Design by IC3.

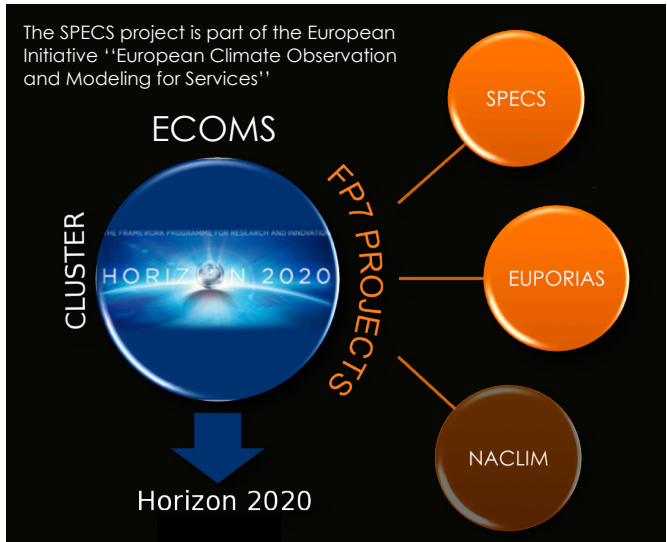
# SPECS PROJECT



Seasonal-to-decadal climate Prediction for the improvement of European Climate Services



*SPECS will deliver a new generation of climate prediction systems for seasonal-to-decadal time scales, to provide actionable climate information for a wide range of users*



The SPECS project is part of the European Initiative "European Climate Observation and Modeling for Services"

Horizon 2020

# SPECS

## Seasonal-to-decadal climate Prediction for the improvement of European Climate Services

The SPECS project will undertake research and dissemination activities to deliver **a new generation of European climate forecast systems**, with improved forecast quality and efficient regionalisation tools to produce reliable, local climate information over land at seasonal-to-decadal time scales, and provide an **enhanced communication protocol and services** to satisfy the climate information needs of a wide range of public and private stakeholders.

The improved understanding and seamless predictions will offer **better estimates** of the future frequency of high-impact, extreme climatic events and of the prediction uncertainty. **New services** to convey climate information and its quality will be used.

SPECS will be, among other things, the glue to coalesce the outcome of previous research efforts that hardly took climate prediction into account. It will ensure interoperability so as to easily incorporate their application in an operational context, provide the basis for **improving the capacity of European policy making, industry and society to adapt to near-future climate variations** and a coordinated response to some of the GFCs (Global Framework for Climate Services) components.

*SPECS is financed by the European Commission through the 7th Framework Programme for Research, Grant Agreement No. 308378*

*The information and views set out in this leaflet are those of IC3 and do not necessarily reflect the official opinion of the European Union.*



### The context of SPECS

SPECS is organised in two complementary ways:

- In a set of overarching research themes (RTs) containing one or more work packages (WPs) each that structure the main goals of the project, and
- In a number of cross-cutting themes (CCTs) offering a common protocol for efficient RT interaction.

The main philosophy of SPECS is unique in that it addresses its objectives by integrating and testing the consolidated knowledge on climate modelling and impact assessment generated by other EU-funded projects and operational activities to optimise the project outcome and achieve a maximum impact.

### SPECS partners

IC3, Spain (project leader)  
 INPE, Brazil  
 MPG, Germany  
 KNMI, Netherlands  
 UOXF, UK  
 METEOF, France  
 CERFACS, France  
 NILU, Norway  
 ENEA, Italy  
 UNIVLeeds, UK

UNEXE, UK  
 MetNo, Norway  
 Vortex, Spain  
 MetOffice, UK  
 SMHI, Sweden  
 CNRS, France  
 UREAD, UK  
 CSIC, Spain  
 ECWMF, UK  
 UHAM, Germany



SPECS will deliver a new generation of climate prediction systems for seasonal-to-decadal time scales, to provide actionable climate information for a wide range of users

Currently developing climate services demand better and more accessible climate information from seasonal-to-decadal climate forecast systems. This includes not just more skilful and reliable climate forecasts produced by a new generation of climate prediction systems and relevant at regional and local spatial scales, but also the delivery of information for variables actually employed in climate-sensitive sectors in forms not yet fully explored by the climate community.

The figure on the right shows an example of what can be made available with the current climate prediction systems for the solar energy sector and marks the starting point of the path that SPECS aims to explore.

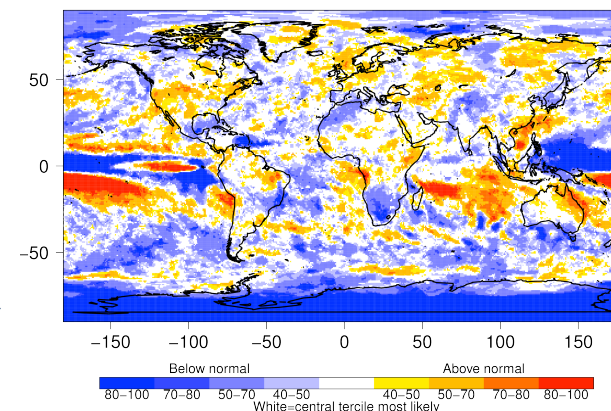


Figure: Global seasonal probability forecast (%) of the most likely downward solar radiation tercile (below normal, normal or above normal) for summer 2011 (June, July and August) started in May from ECMWF's System 4