SPECS
Climate Prediction for Climate Services

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

BSC iCrea

SPECS motivation

What: to produce quasi-operational and actionable local climate information

Why: need information with improved forecast quality, a focus on extreme climate events and enhanced communication and services for RCOFs, NHMSs and a wide range of public and private stakeholders

How: with a new generation of reliable European climate forecast systems, including initialised ESMs, efficient regionalisation tools and combination methods, and an enhanced dissemination and communication protocol

Where: over land, focus on Europe, Africa, South America

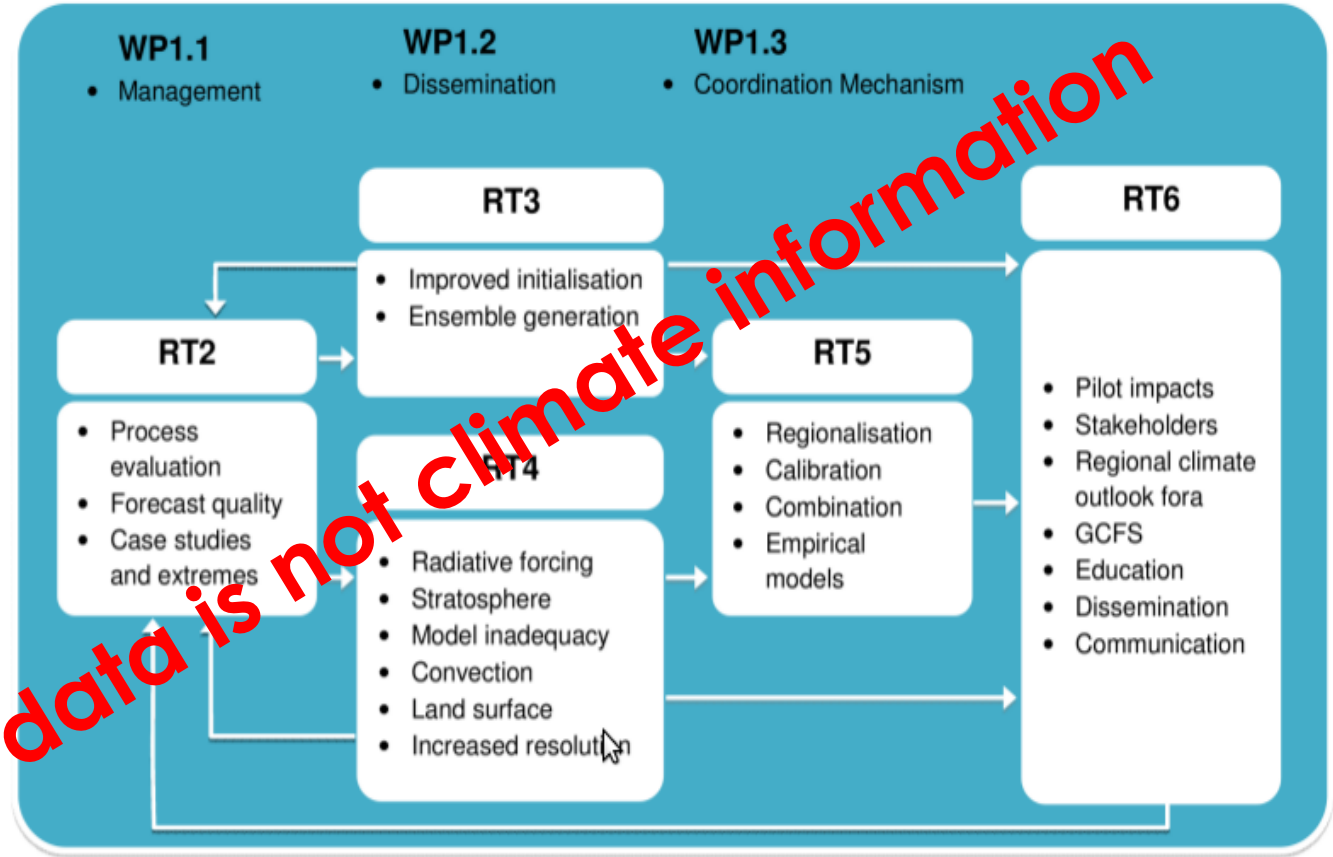
When: seasonal-to-decadal time scales over the longest possible observational period

http://www.specs-fp7.eu

SPECS Overview

Strong links to EUPORIAS, but also NACLIM, IS-ENES2, PREFACE, …

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



Climate data is not climate information

WP1.1: Management
WP1.2: Dissemination
WP1.3: Coordination across EUPORIAS, NACLIM & SPECS
RT2: Evaluation of current s2d forecast systems
RT3: Forecast strategies
RT4: Improved systems
RT5: Calibrated predictions at the local scale

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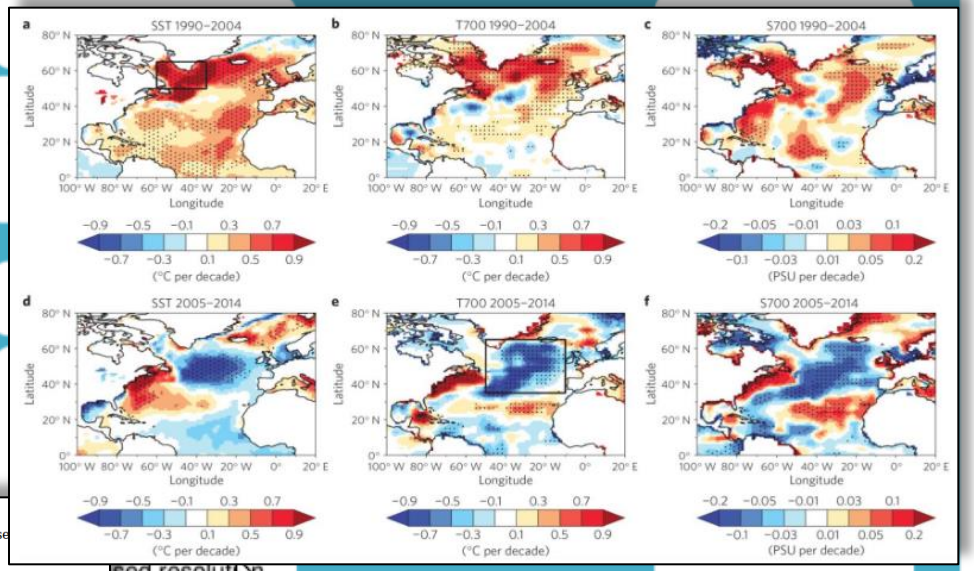
WP1.1
- Management

WP1.2
- Dissemination

WP1.3
- Coordination Mechanism

RT2
- Process evaluation
- Forecast quality
- Case studies and extremes



SpecsVerification: Forecast Verification Routines for the SPECS FP7 Project

A collection of new forecast verification routines for the SPECS FP7 project. The emphasis is on comparative verification of ense

Version:	0.4-1
Published:	2015-10-23
Author:	Stefan Siegert [aut, cre]
Maintainer:	Stefan Siegert <s.siegert at exeter.ac.uk>
License:	GPL-2 | GPL-3 [expanded from: GPL (≥ 2)]
NeedsCompilation:	yes
CRAN checks:	SpecsVerification results

Downloads:

Reference manual:	SpecsVerification.pdf
Package source:	SpecsVerification_0.4-1.tar.gz
Windows binaries:	r-devel: SpecsVerification_0.4-1.zip, r-release: SpecsVerification_0.4-1.zip, r-oldrel: SpecsVerification_0.4-1.zip
OS X Mavericks binaries:	r-release: SpecsVerification_0.4-1.tgz, r-oldrel: SpecsVerification_0.4-1.tgz
Old sources:	SpecsVerification archive

Reverse dependencies:

Reverse depends: easyVerification
Reverse imports: s2dverification

Linking:

Please use the canonical form https://CRAN.R-project.org/package=SpecsVerification to link to this page.

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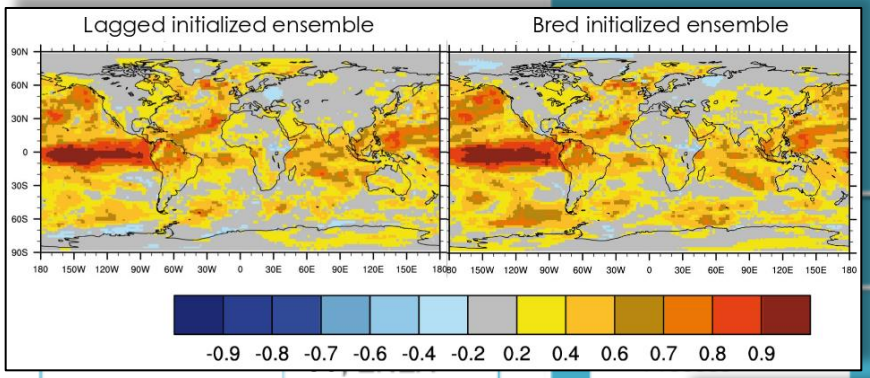

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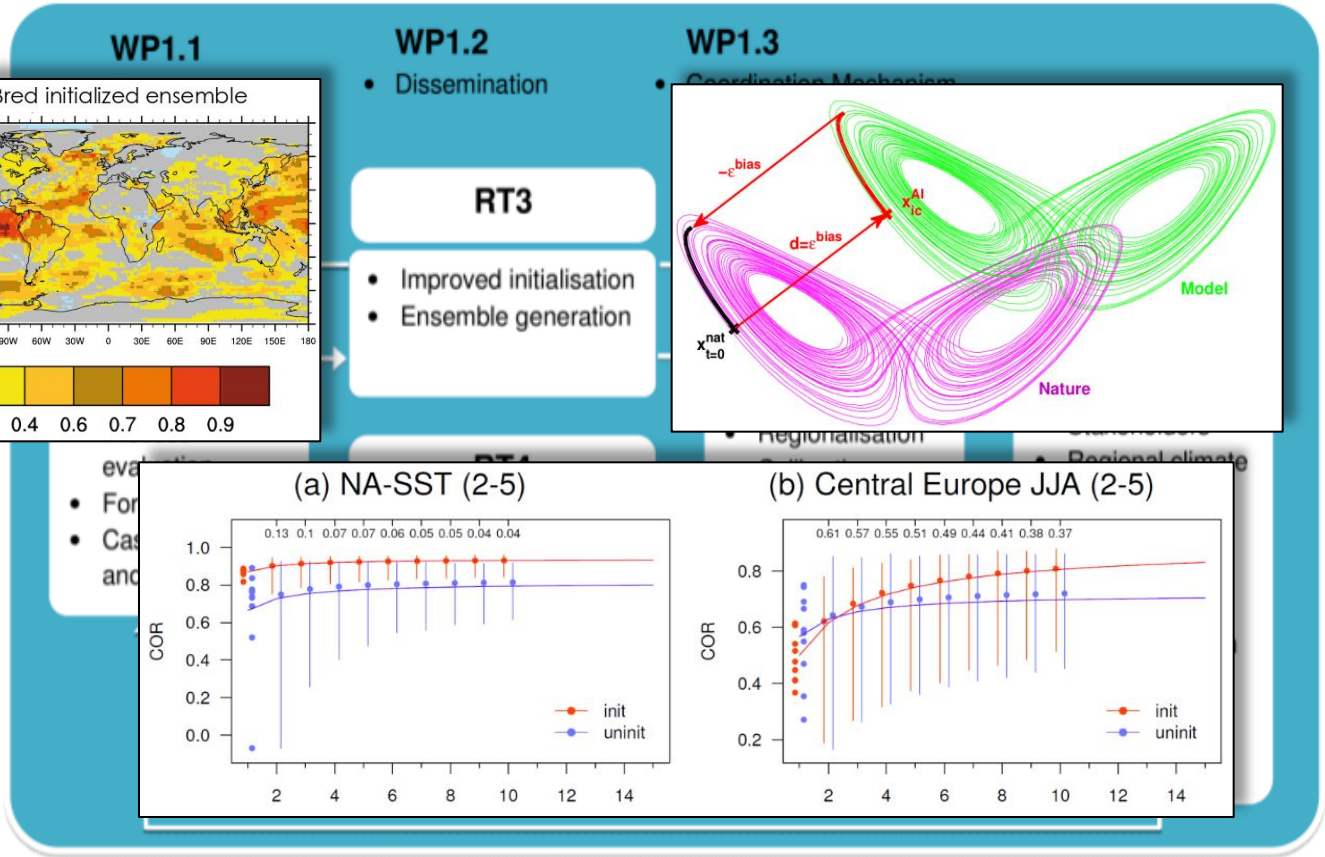

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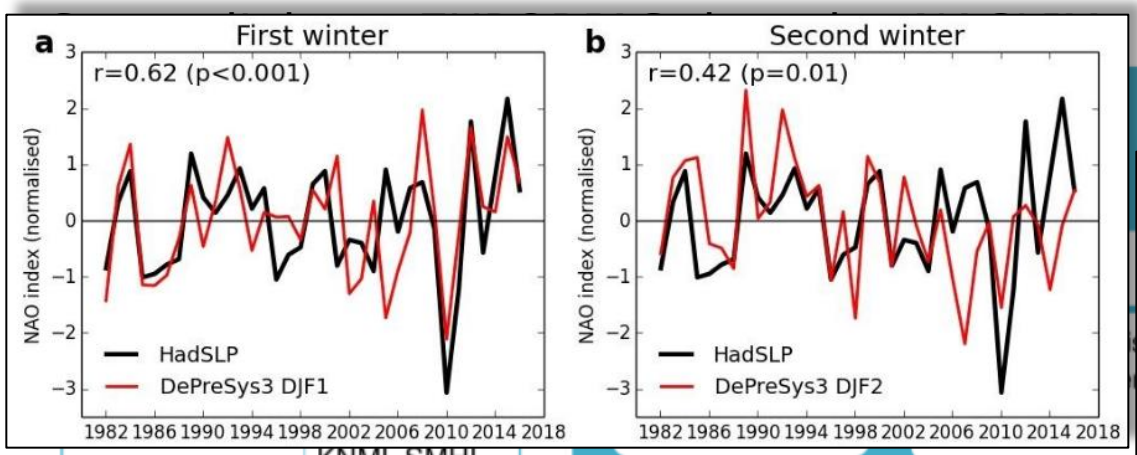
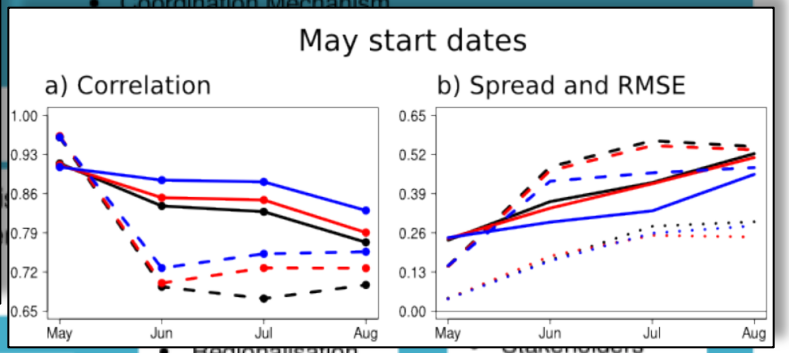
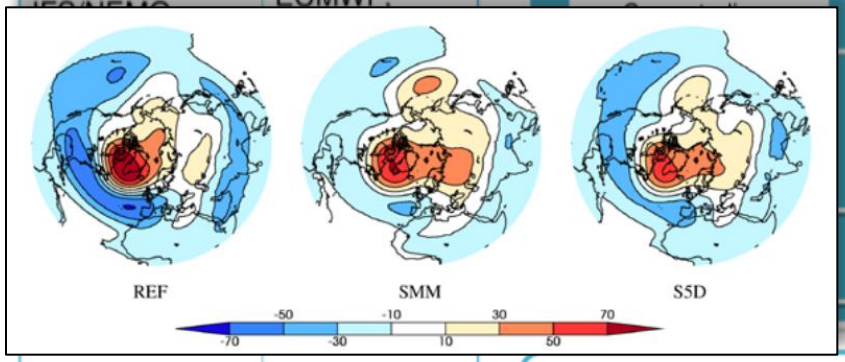
SPECS Overview

IS-ENES2, PREFACE, …







WP1.3

- Coordination Mechanism

EC-Earth	KNMI, SMHI, BSC, ENEA
	ECMWF,
UM	UKMET

- Process evaluation
- Forecast quality

RT4

- Radiative forcing
- Stratosphere
- Model inadequacy
- Convection
- Land surface
- Increased resolution

- Regionalisation
- Calibration
- Combination
- Empirical models

- Regional climate outlook fora
- GCFS
- Education
- Dissemination
- Communication

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SPECS Overview

Strong … NES2, PREFACE, …

SantanderMetGroup / **downscaleR**

Watch 9 | Star 12 | Fork 19

Code | Issues 8 | Pull requests 1 | Projects 0 | Wiki | Pulse | Graphs

R package for statistical downscaling

728 commits | 4 branches | 25 releases | 7 contributors

Branch: devel | New pull request | Find file | Clone or download

miturbide bug fix in biasCorrection when applying the "delta" method and cross … Latest commit c90802d 2 days ago

R	bug fix in biasCorrection when applying the "delta" method and cross …	2 days ago
inst	Added plotClimatology for lattice plots	4 months ago
man-roxygen	minor changes in subsetGrid and man-roxygen/templateObsPredSim	6 months ago
man	Doc update	12 days ago
.gitignore	new .gitignore update	2 years ago
DESCRIPTION	Update DESCRIPTION	12 days ago
NAMESPACE	Doc update	12 days ago
NEWS	Doc update	16 days ago
README.md	Fix typo in README file	12 days ago

Forecast System	
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EC-Earth	
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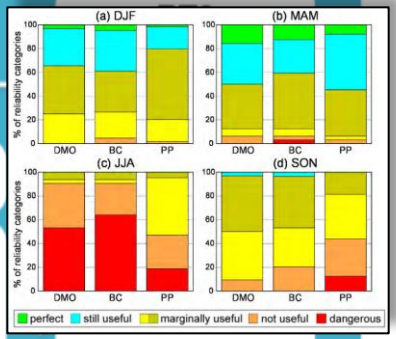
WP1.3

Coordination Mechanism

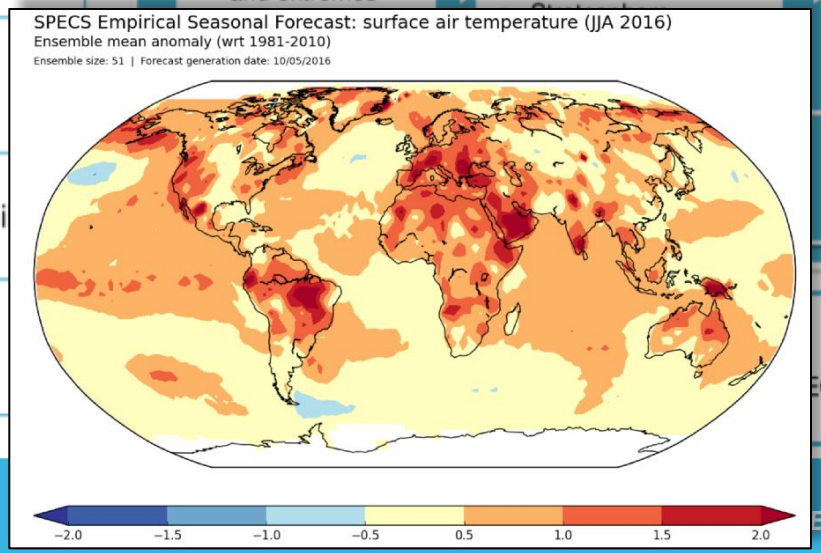
and extremes

RT5

- Regionalisation
- Calibration
- Combination
- Empirical models



- GCFS
- Education
- Dissemination
- Communication



RT3: Forecast strategies

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RT5: Calibrated predictions at the local scale

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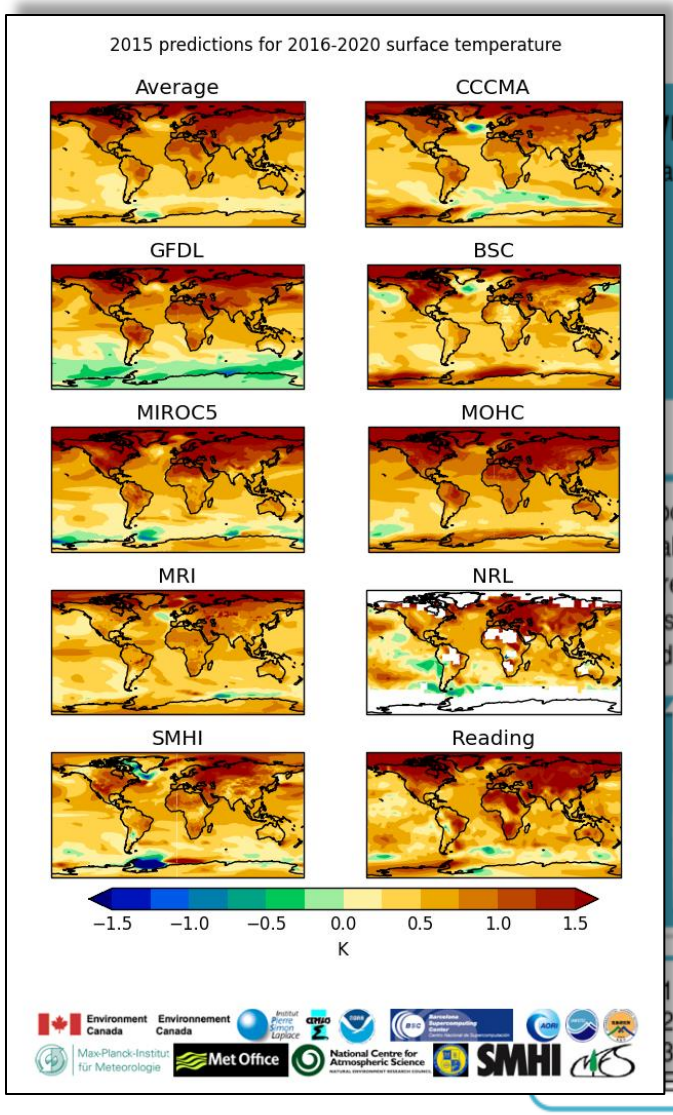

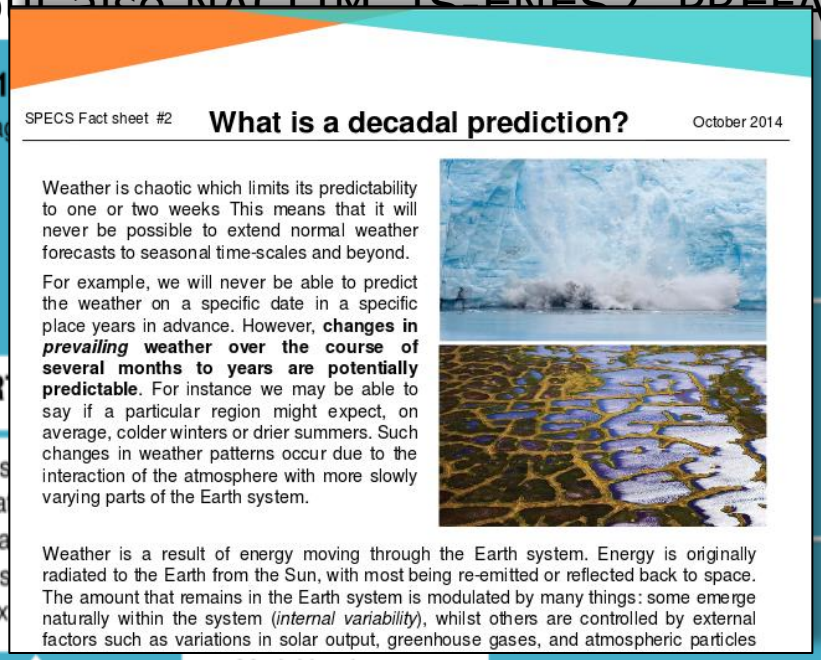

SPECS Fact sheet #2 **What is a decadal prediction?** October 2014

Weather is chaotic which limits its predictability to one or two weeks This means that it will never be possible to extend normal weather forecasts to seasonal time-scales and beyond.

For example, we will never be able to predict the weather on a specific date in a specific place years in advance. However, **changes in *prevailing* weather over the course of several months to years are potentially predictable**. For instance we may be able to say if a particular region might expect, on average, colder winters or drier summers. Such changes in weather patterns occur due to the interaction of the atmosphere with more slowly varying parts of the Earth system.

Weather is a result of energy moving through the Earth system. Energy is originally radiated to the Earth from the Sun, with most being re-emitted or reflected back to space. The amount that remains in the Earth system is modulated by many things: some emerge naturally within the system (*internal variability*), whilst others are controlled by external factors such as variations in solar output, greenhouse gases, and atmospheric particles

- Model inadequacy
- Convection
- Land surface

RT6

- Pilot impacts
- Stakeholders
- Regional climate outlook fora
- GCFS
- Education
- Dissemination
- Communication

...es
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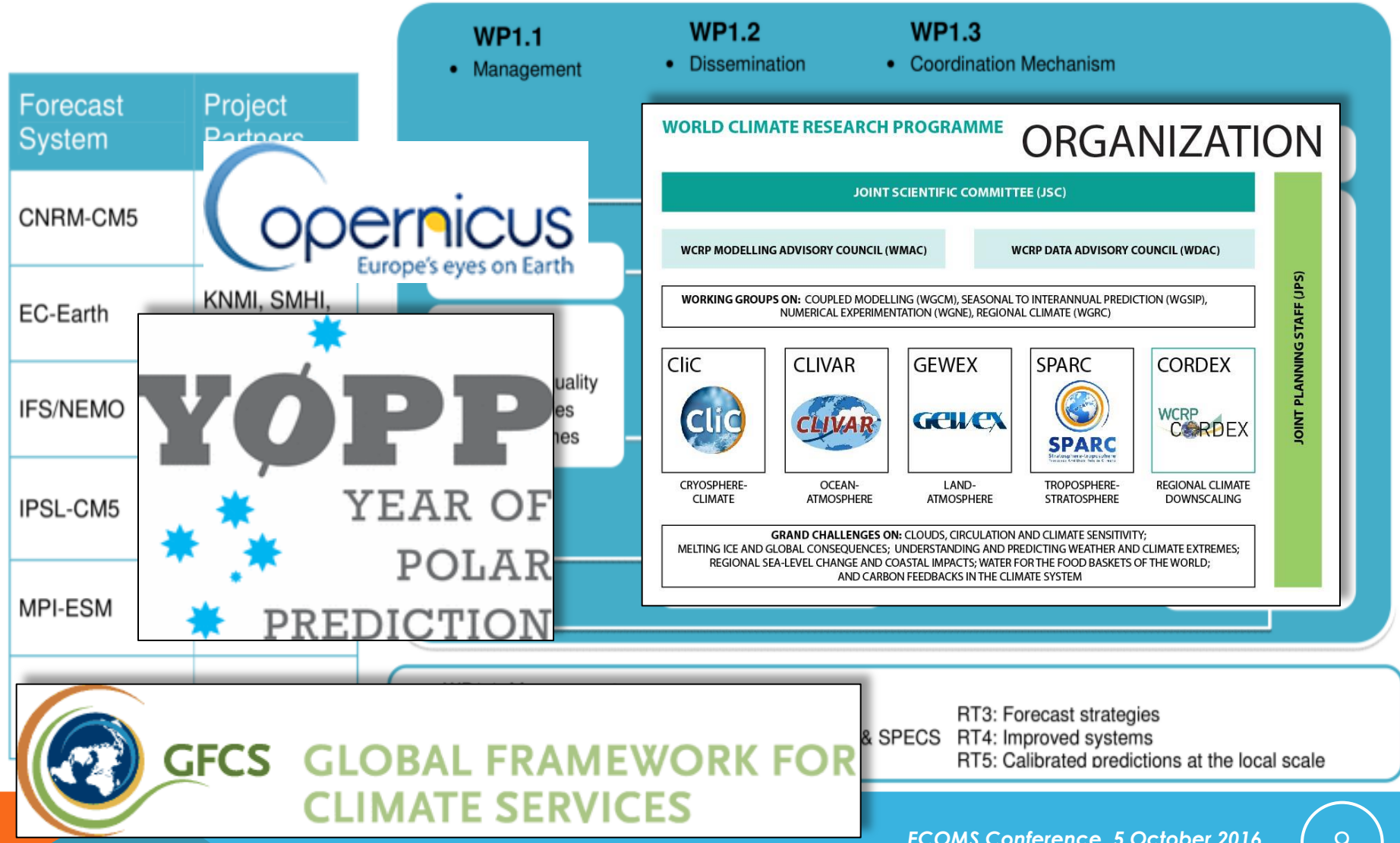

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