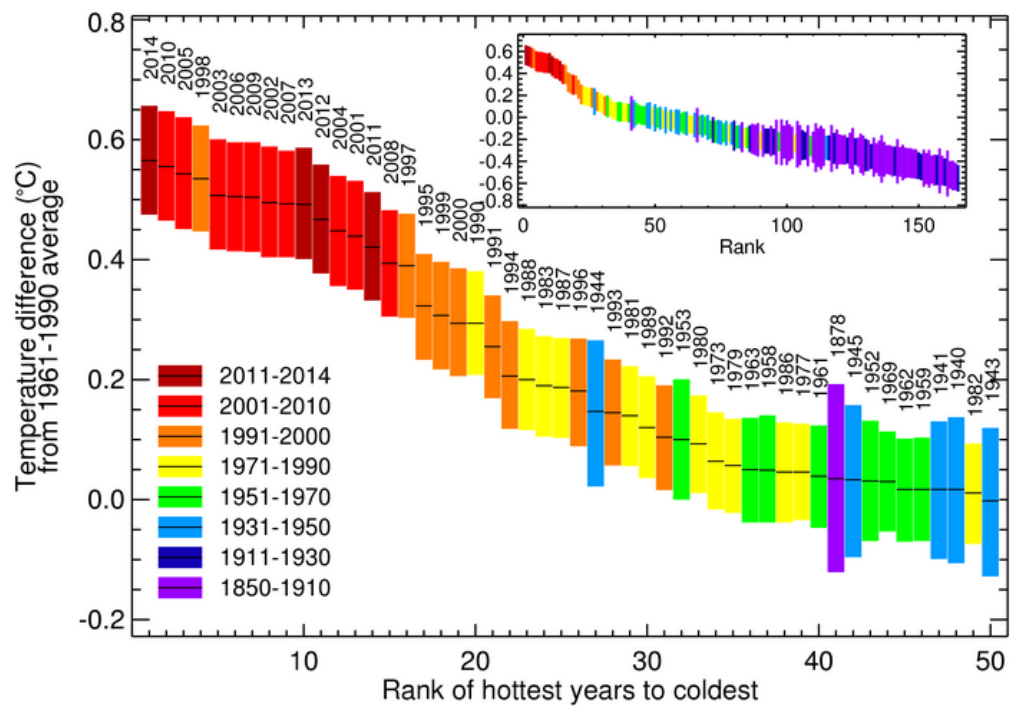


Framing Climate Services Research

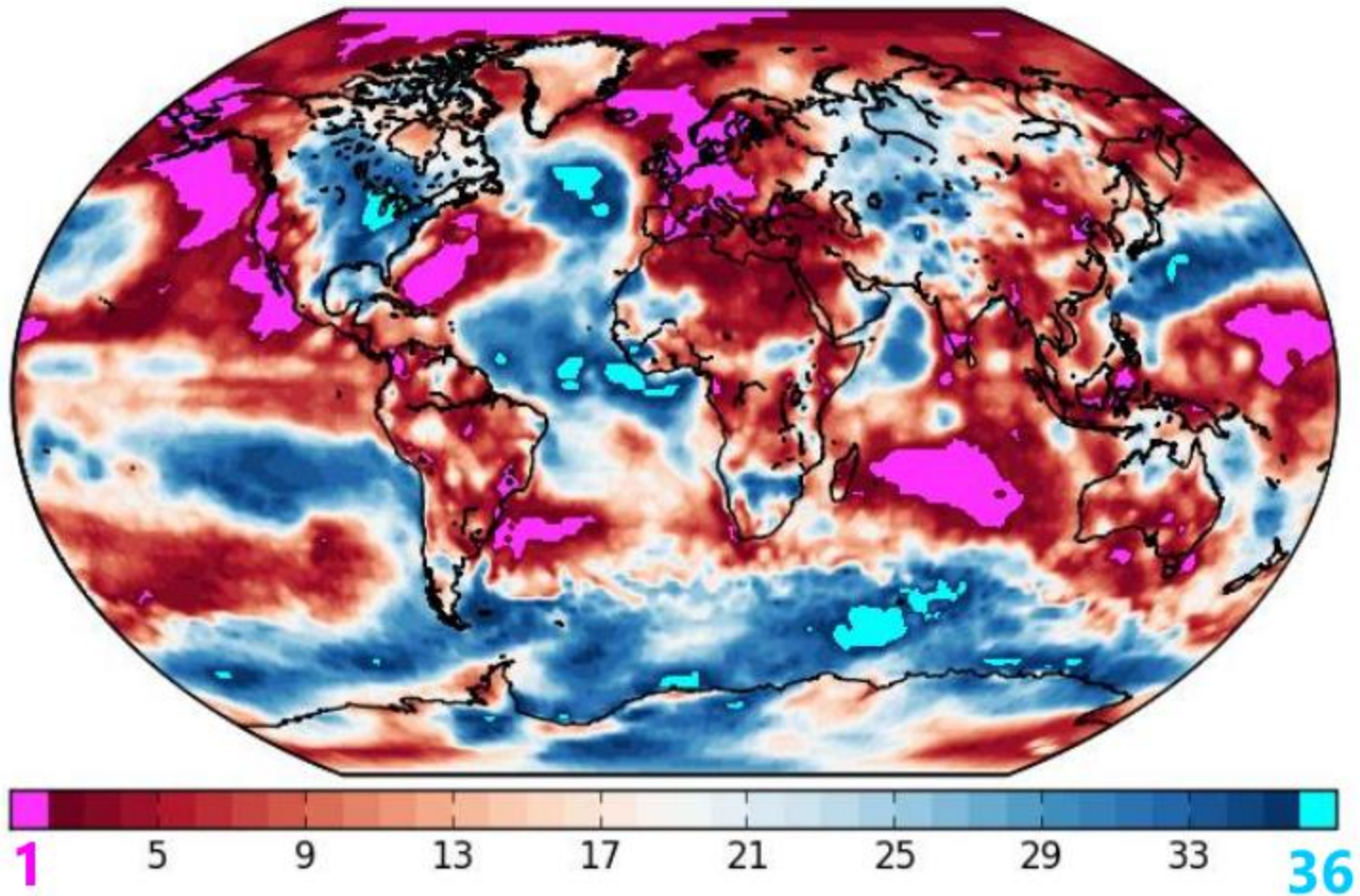
F.J. Doblas-Reyes
ICREA, BSC and IC3, Barcelona, Spain



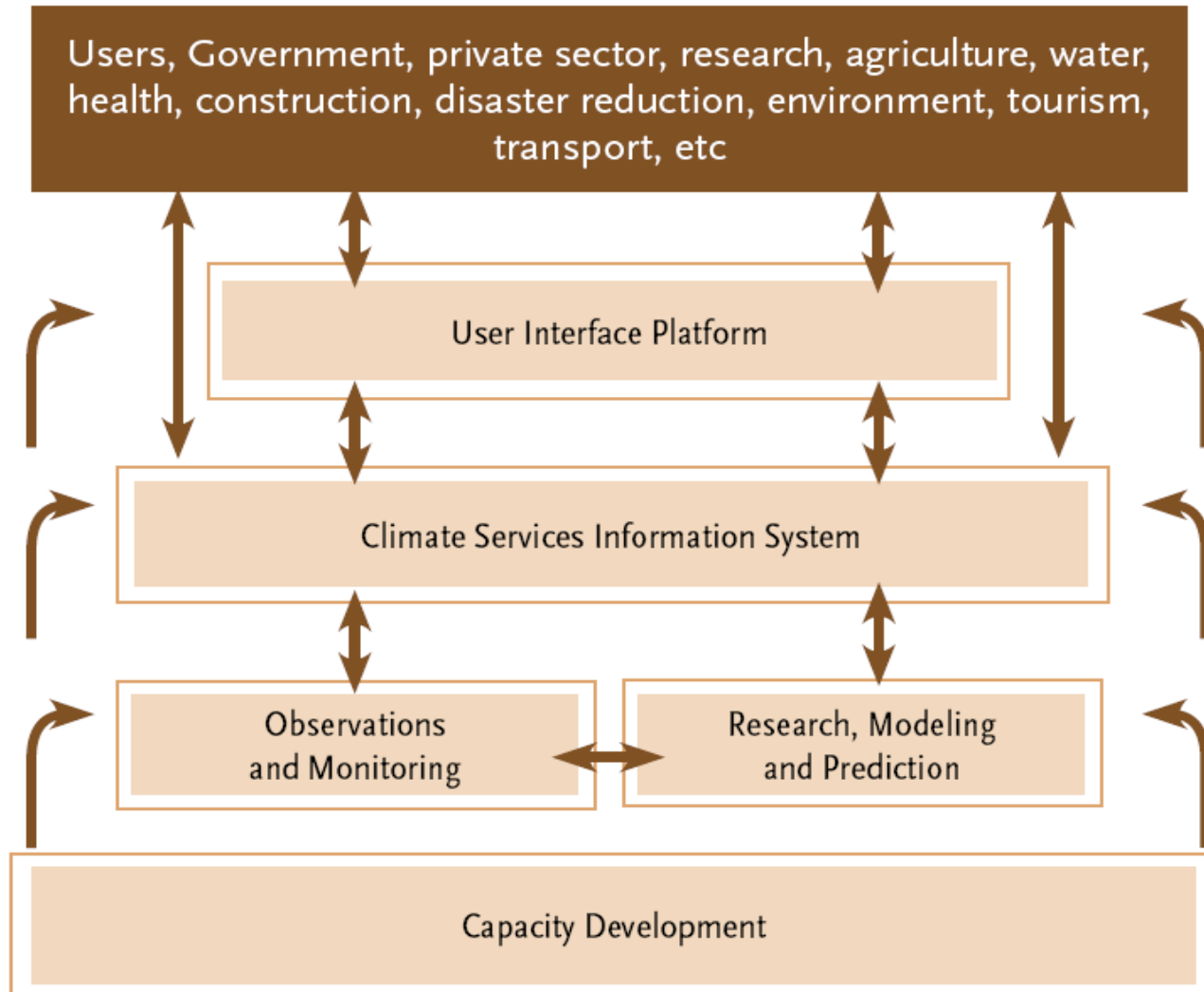
The Met Office issued in December 2013 a forecast (using their global temperature forecast system) for global average temperature in 2014 to be expected between 0.43 and 0.71 above the long-term (1961-1990) average: "Taking into account the range of uncertainty in the forecast, it is likely that 2014 will be one of the warmest ten years in the record".



Rank of the 2014 annual mean temperature over the last 36 years from ERA Interim.



Global Framework for Climate Services



A plethora of initiatives



Global Framework for Climate Services (GFCS)

<http://www.gfcs-climate.org>.

“Climate services provide climate information in a way that assists decision making by individuals and organizations. Such services require appropriate engagement along with an effective access mechanism and must respond to user needs”.

Climate Services Partnership (CSP) <http://www.climate-services.org>. Also ECSP.

“Climate services involve the production, translation, transfer, and use of climate knowledge and information in climate-informed decision making and climate-smart policy and planning”.

A plethora of initiatives



JPI Climate <http://www.jpi-climate.eu>.

Theme 2 “The requests for 'Climate Services will be a two-way exchange: not only will climate information be provided to users, but users will influence the development of Climate Services and the underpinning research by defining their needs”.

European Roadmap for Climate Services.

“Climate services have the potential to become the intelligence behind the transition to a climate-resilient and low-carbon society' is one of the conclusions of the European Roadmap for Climate Services”.

Copernicus Climate Change Service (C3S)

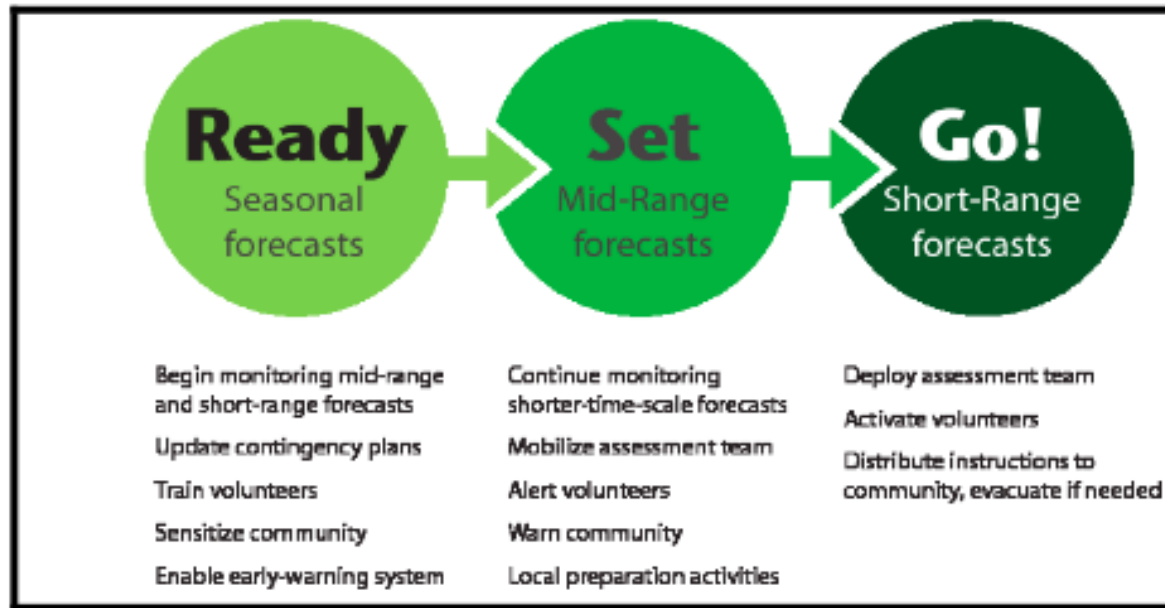
<http://www.copernicus-climate.eu>.

“C3S will combine observations of the climate system with the latest science to develop authoritative, quality-assured information about the past, current and future states of the climate in Europe and worldwide”.

Plus other multiple actors (World Bank, Development Funds, etc).

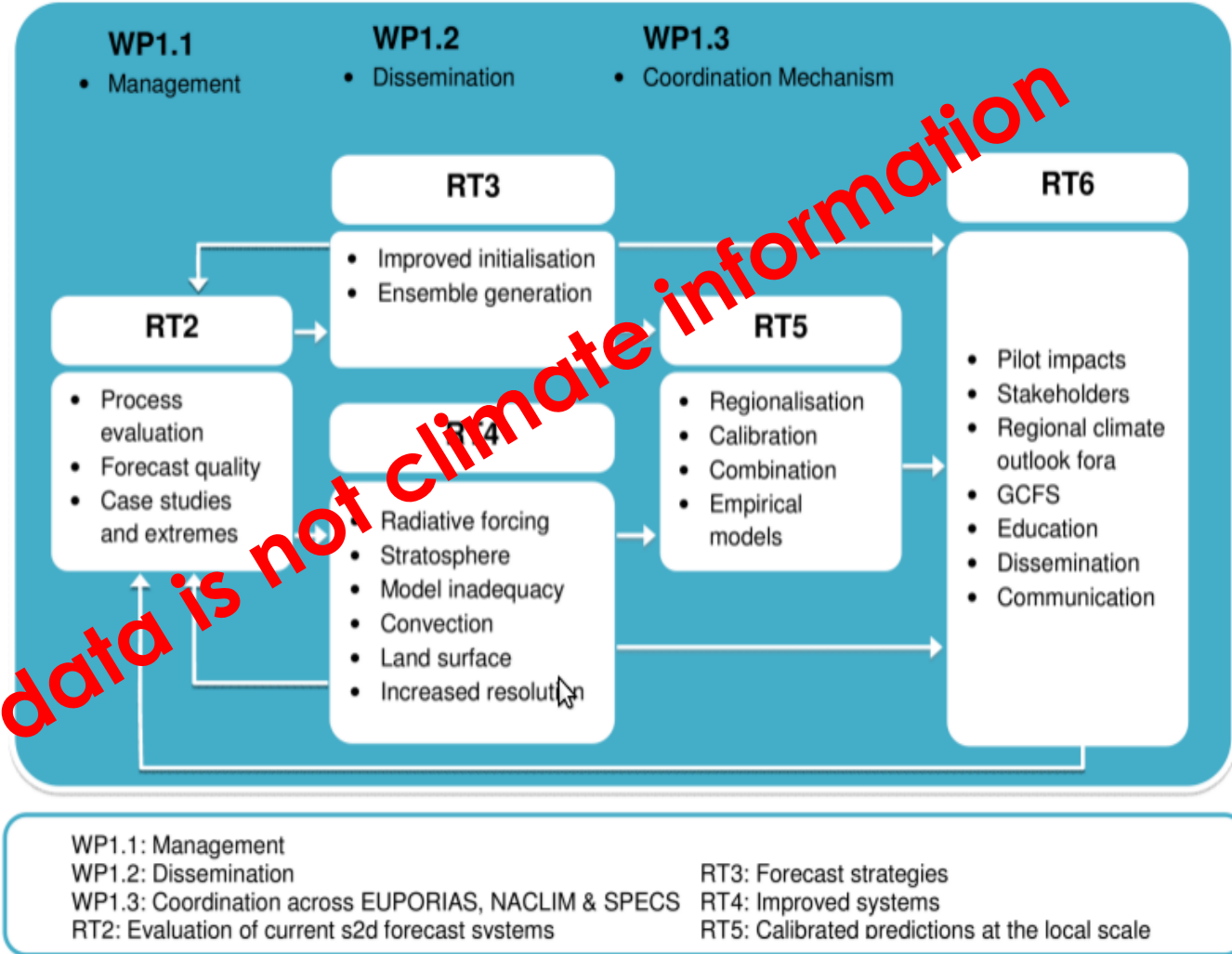
Application of **seamless** climate and weather information.
 Example from the IRI-Red Cross collaboration:

Likelihood of severe, high-impact weather (drought, flooding, wind storms, etc.), humanitarian planning and response to disasters, agriculture (e.g. wheat and rice production), disease control (e.g. malaria, dengue and meningitis), river-flow (e.g. flood prediction, hydroelectric power generation and reservoir management).



Links to EUPORIAS/NACLIM (**ECOMS**), but also IS-ENES2, PREFACE, EUCLEIA, CLIPC, ...

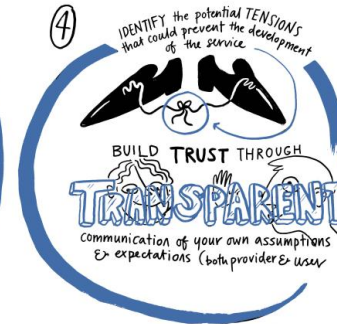
Forecast System	Project Partners
CNRM-CM5	CNRM, CERFACS
EC-Earth	KNMI, SMHI, IC3, ENEA
IFS/NEMO	ECMWF, UOXF
IPSL-CM5	CNRS
MPI-ESM	MPG, UniHH
UM	UKMET



Climate data is not climate information

SUCCESSFUL CLIMATE SERVICE

Principles



EUPORIAS

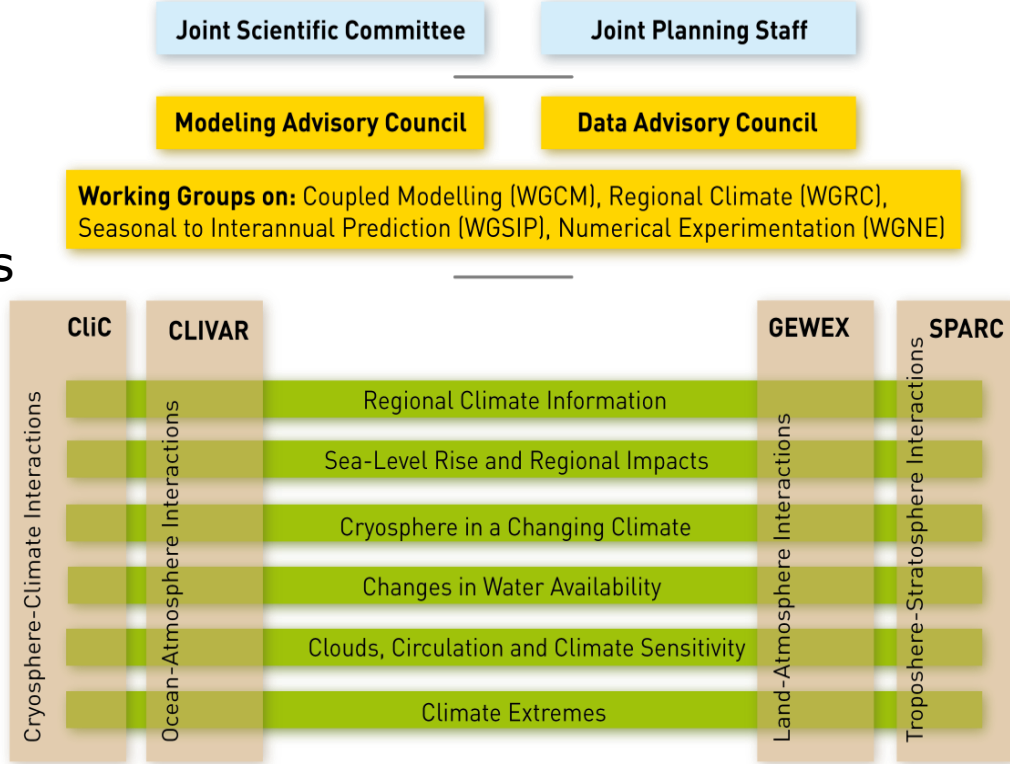
Grand Challenge on Regional Climate Information: What

gaps in our scientific understanding and information, if addressed, would maximise the value content of regional climate information?

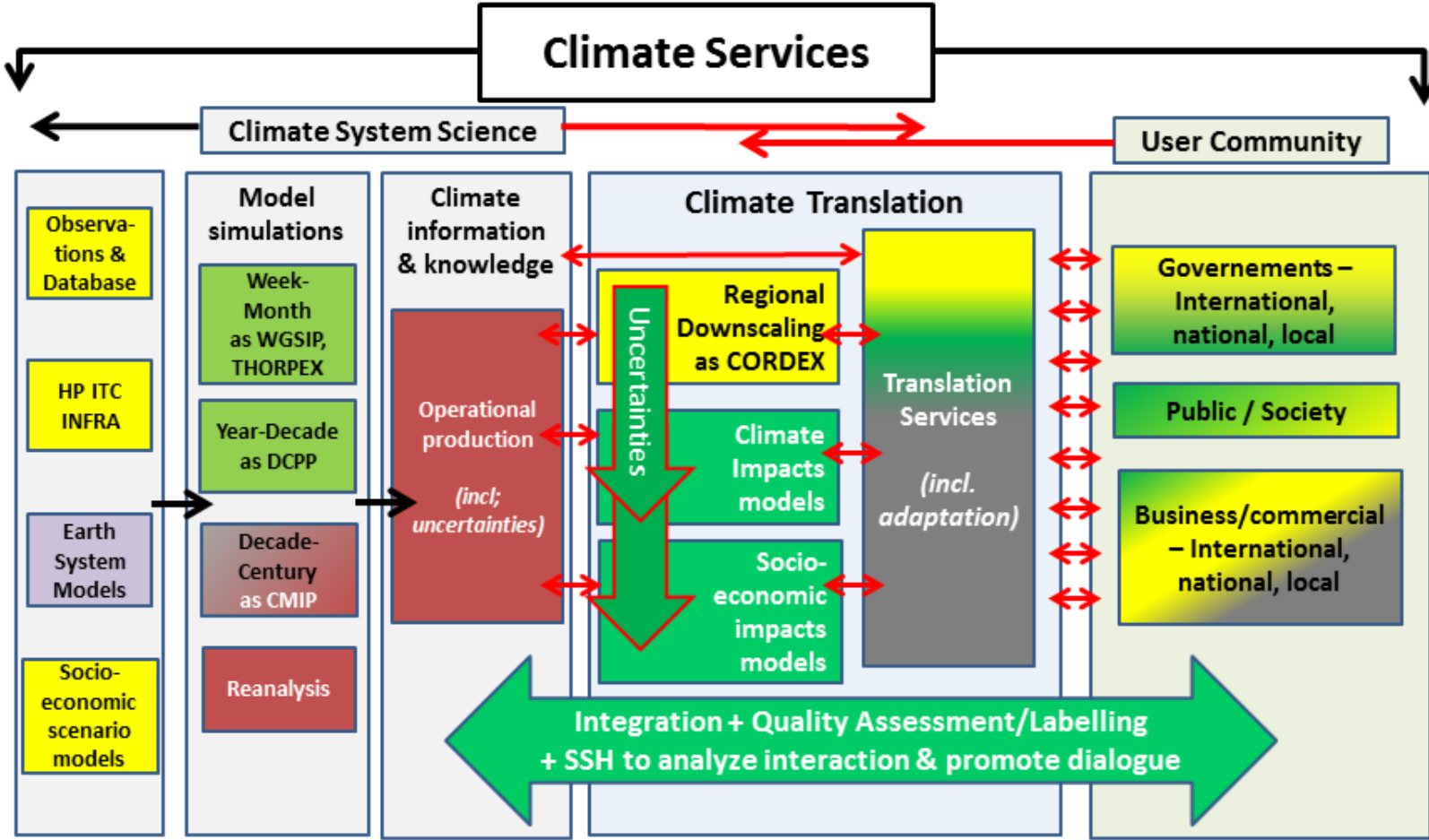
Steering group: Clare Goodess (WGRC), Francisco Doblas-Reyes (WGSIP), Lisa Goddard (CLIVAR), Bruce Hewitson (WGRC), Jan Polcher (GEWEX & WGRC), supported by Roberta Boscolo (WCRP)

Initial case study for the city of Maputo (Mozambique). Could a zone of the Mediterranean be proposed as a second case study?

WCRP Organization



The EC view of the beast



2015 BF/JPI-C Call

2014-15 H2020

2016 ERA4CS

2016-17 H2020

COPERNICUS

KIC Climate