

**WCRP**

World Climate Research Programme



# WCRP Overview

R. Boscolo and M. Rixen  
WCRP JPS, Geneva, Switzerland

WCRP VAMOS/CORDEX Workshop on Latin-America and Caribbean  
CORDEX LAC: Phase I - South America

September 11-13, 2013  
Lima, Peru



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# Mission & Objectives



World Climate Research Programme supports **climate-related decision making** and planning **adaptation to climate change** by coordinating research required to improve:

- (1) climate predictions and
- (2) our understanding of human influence on climate

*“for use in an increasing range of practical applications of direct relevance, benefit and value to society”*

*(WCRP Strategic Framework 2005-2015).*



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## Research Contributions: Way Forward

- Maintain scientific objectivity and excellence as a foundation for developing science-based climate information.
- Seek to establish an effective dialogue with users of climate information to understand their needs and to obtain their feedback on use of available knowledge, and required new information.
- Facilitate the holistic approach to Earth climate system research to include socioeconomic aspects of the problems, and decision making.
- **Provide greater support to research capacity development with special focus on regional aspects of climate variability and change.**
- Promote solution-based approach to addressing challenges and opportunities in developing, evaluating and disseminating climate information for risk management, adaptation planning and global sustainability and development.

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## WCRP Grand Challenges

- Provision of **skillful regional climate information**
- **Sea-Level Change** and its regional implications
- **Cryosphere response** to climate change
- The role of clouds, aerosols, precipitation, and radiation in **climate sensitivity**
- **Water availability and distribution** in a changing climate
- Science foundation for **prediction and attribution of extreme events**



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## Structure Post 2013



The WCRP will focus on four **fundamental interactions** of the Earth/climate system:

- Ocean-atmosphere
- Land-atmosphere
- Stratosphere-troposphere
- Cryosphere and Climate

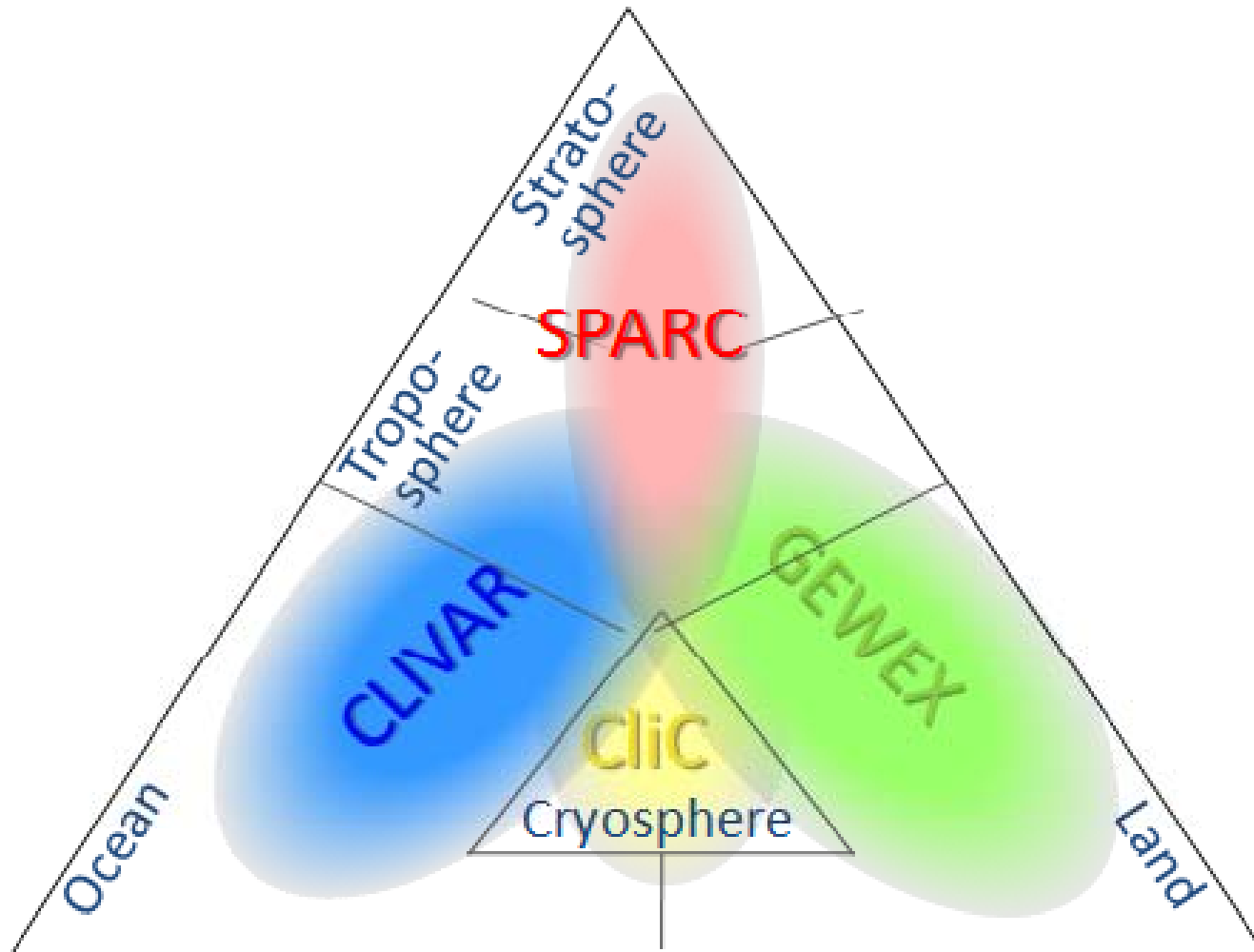


WCRP **Overarching/Unifying themes:**

- Observation and Analysis
- Process understanding
- Modeling development, projections and prediction
- Synthesis, Climate Information and Application

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# WCRP Organization

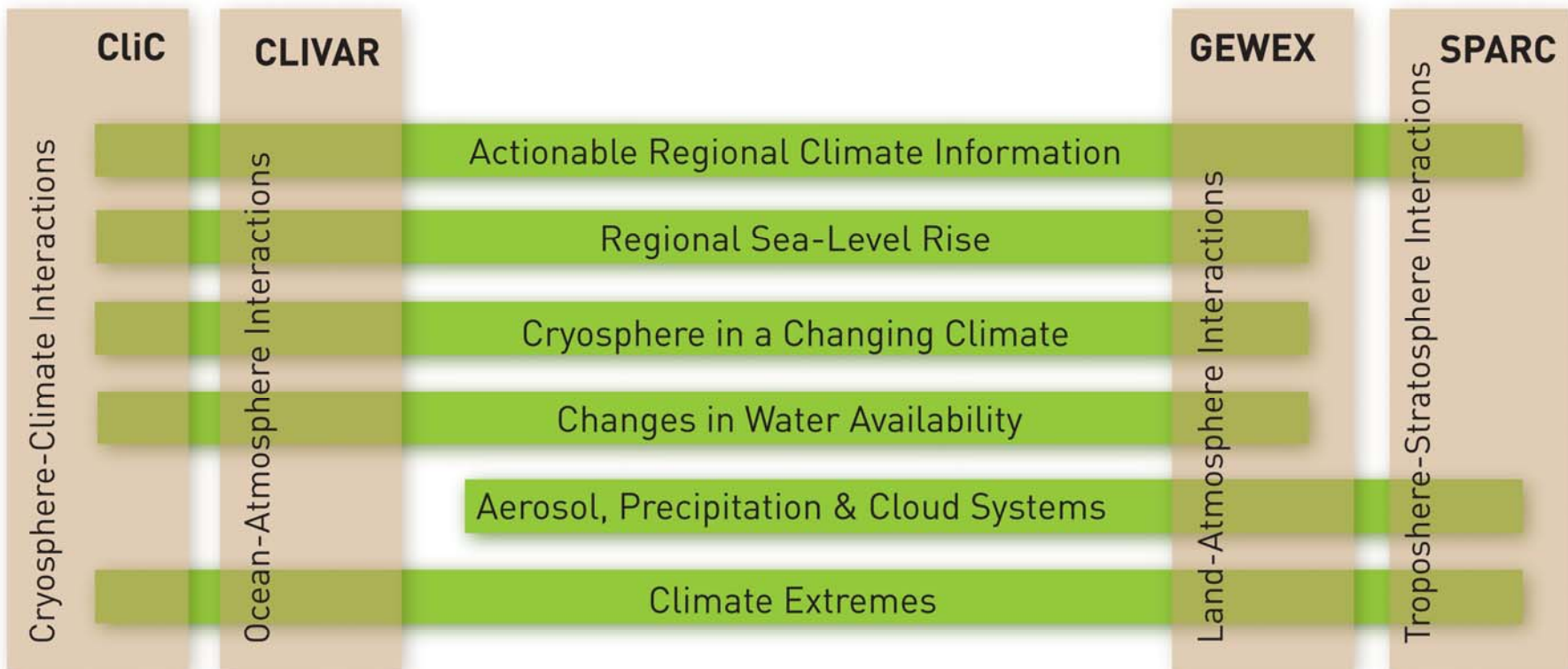
Joint Scientific Committee

Joint Planning Staff

Modeling Advisory Council

Data Advisory Council

**Working Groups on:** Coupled Modelling (WGCM), Regional Climate (WGRC), Seasonal to Interannual Prediction (WGSIP), Numerical Experimentation (WGNE)





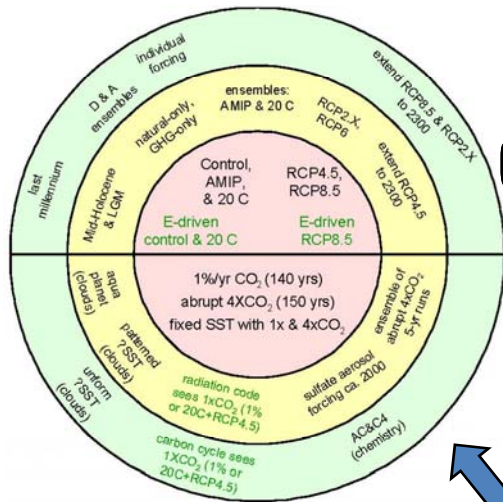


## Major WCRP Climate Prediction & Projection Experiments

Coupled Model Intercomparison Experiment 5 – CMIP5  $\Rightarrow$  IPCC AR5

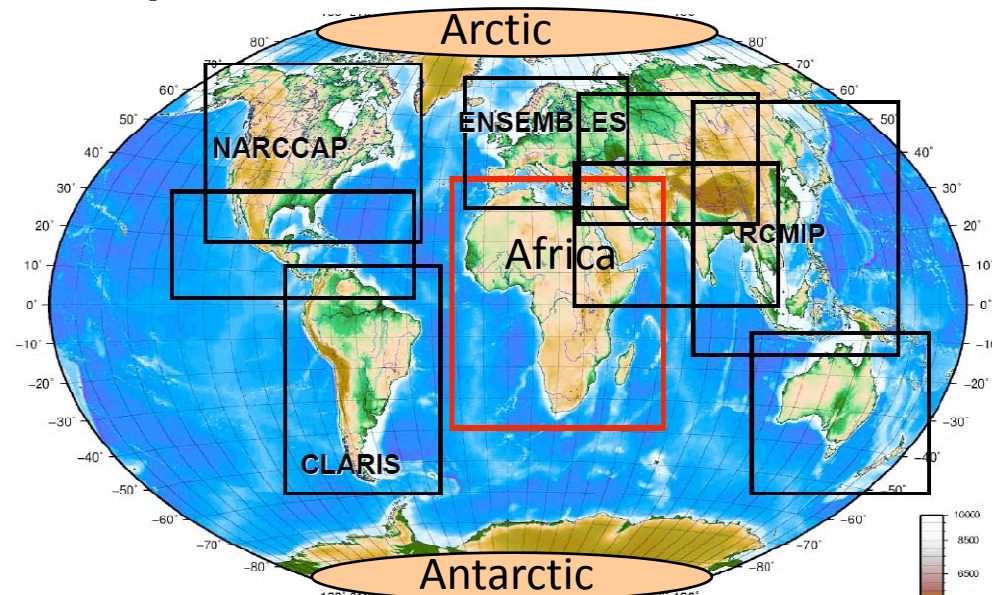
Climate-system Historical Forecast Project - CHFP

**seasonal** sea ice, stratosphere



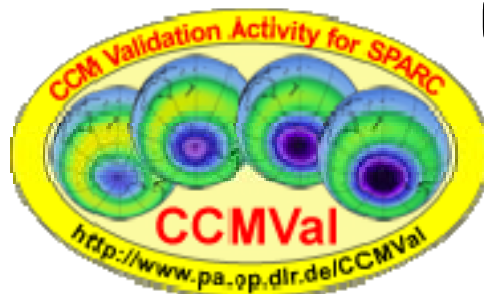
**decades, centuries**

Coordinated Regional Downscaling Experiment – CORDEX  $\Rightarrow$  IPCC AR5



Chemistry-Climate Model Validation

**chemistry, ozone**



**regional**



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## WCRP Working Group on Regional Climate

The WGRC's mission is to coordinate regional climate research and science-based knowledge development for decision makers.



Co-Chairs:

Clare Goodess, Univ. East Anglia, United Kingdom  
Bruce Hewitson, Univ. Cape Town, South Africa



1<sup>st</sup> Session of WGRC, 6-7 April 2013  
Vienna AUSTRIA

Hosted by the Austrian Central Institute  
for Meteorology and Geodynamic (ZAMG)



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## Africa Climate Conference - ACC 2013

*Helping to set the priorities for climate research in Africa and putting climate knowledge into the hands of end-users*



Arusha International Conference Centre (AICC)  
**Tanzania - 15-18 October 2013**



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## The WCRP Conference for Latin America and the Caribbean, Developing, Linking, and Applying Climate Knowledge

Montevideo, Uruguay on 17-21 March, 2014.

### Goals

*Identify gaps and ways to overcome limitations in the chain of knowledge going from basic to applied climate science and to informing policy and decisions that are particularly relevant for LA&C.*

*Build interdisciplinary capacity, fostering the participation of decision and policy makers, climate and social scientists and key intermediary institutions.*

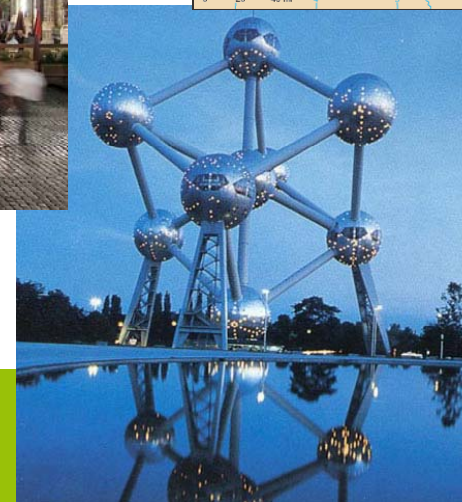
*Contribute to further develop the emerging provision of regional Climate Services.*



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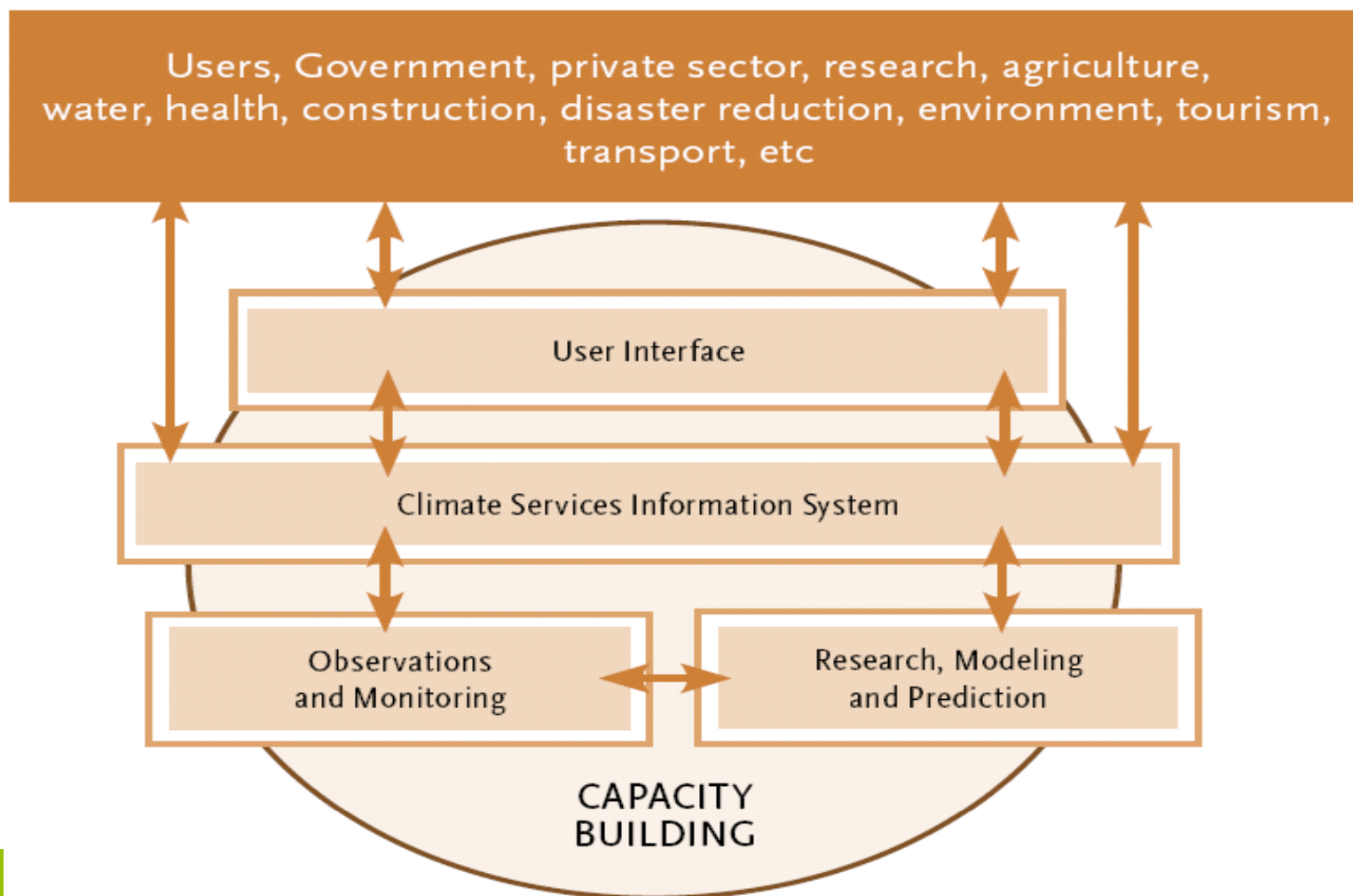


- 4-7 November 2013, Brussels, Belgium
- Partnership between WCRP, IPCC and EC
- Timed between IPCC WGI and WGII releases
- 1st day: High Level Session, Stakeholder dialogue
- 2-4<sup>th</sup> days: Scientific Conference
- <http://cordex2013.wcrp-climate.org/>





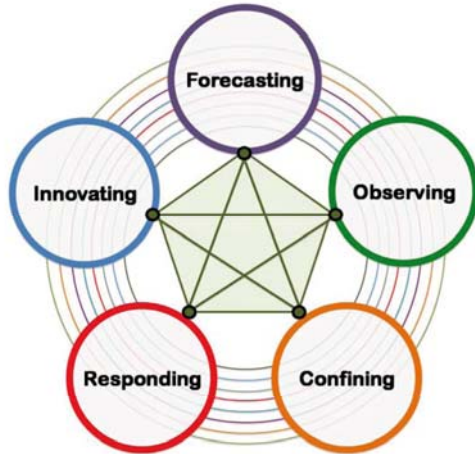
## Global Framework for Climate Services (GFCS)





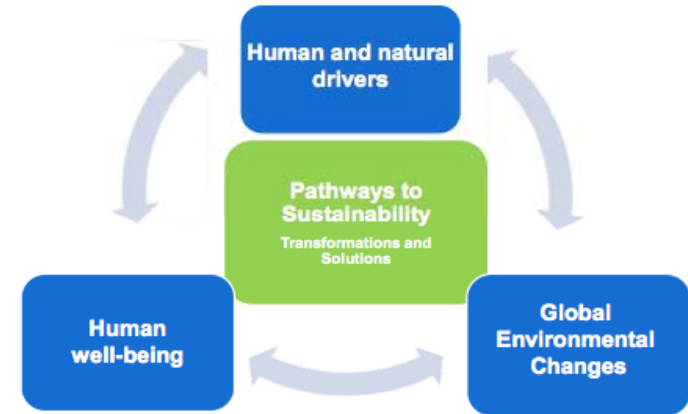


## Future Earth: Research for Global Development



**Grand Challenges in Earth System Science for Global Sustainability.**  
The concentric circles represent the disciplinary research needed in the social, natural, health and engineering sciences and the humanities that must be carried out alongside interdisciplinary and transdisciplinary research in order to address the challenges. The lines linking the grand challenges show that progress in addressing any challenge will require progress in addressing each of the others.

**A global alliance**



**Launched at RIO+20**

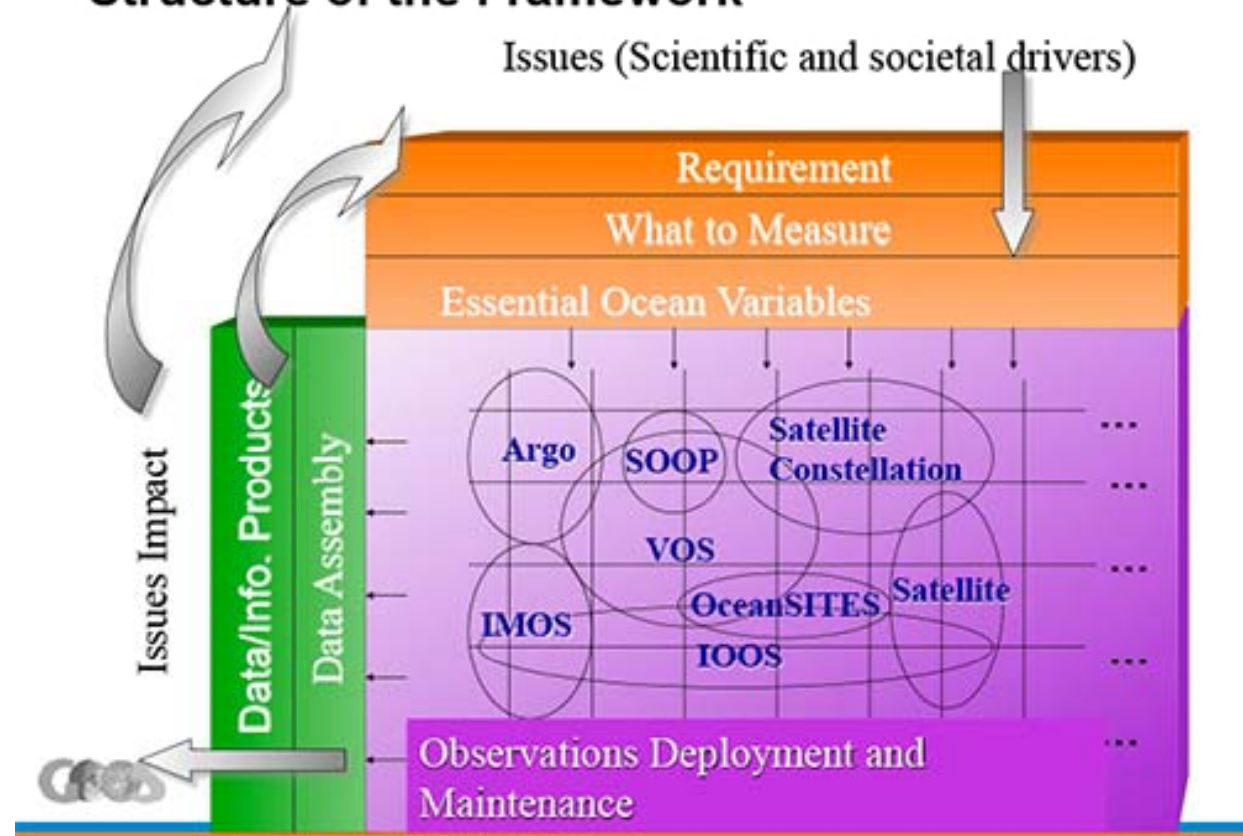
**WCRP contribution: global & regional climate science and information.**



## Framework for Ocean Observing

- Take lessons learned from successes of existing observing efforts – **best practices**
- **Guide** observing community as a whole to sustain and expand the capabilities of the ocean observing system
- Deliver an observing system that is **fit-for-purpose**
- Promoting **collaborative alignment** of independent groups, communities and networks, **building on existing structures** as much as possible

### Structure of the Framework



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## Communication and Outreach Team



Roberta Boscolo  
WCRP JPS



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GEWEX IPO



Heidi Isaksen  
CliC IPO



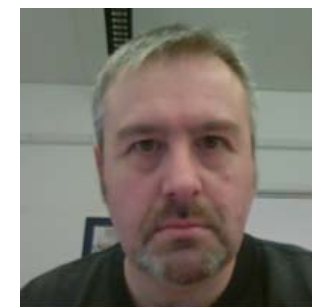
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Support unit



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CLIVAR  
staff scientist



Tim Waterfield  
CLIVAR  
Web developer



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## Communication Elements

Publications

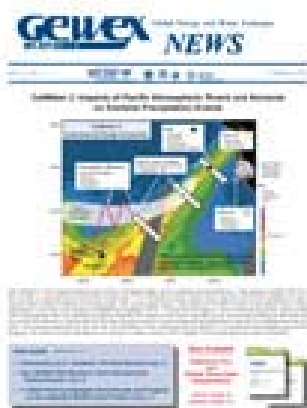
Website

E-Bulletins

Social media

Flyers and brochures

Networks and Mailing Lists



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CORDEX Newsletter 1 January 2013

Welcome to the first CORDEX newsletter. The Coordinated Regional Climate Downscaling Experiment (CORDEX) was launched by the World Climate Research Programme (WCRP) to create a framework for evaluating and comparing these various techniques that are in use all over the world.

In this edition of the newsletter you can find:

- News from the Arctic, North America, MEO, South Asia and East Asia CORDEX groups (p2-4)
- Information on the new CORDEX website (p4)
- Details of the CORDEX Conference 2013 (p5)
- Contact information for CORDEX people (p6)

The bi-annual newsletter aims to connect the CORDEX groups across the world, to keep interested readers informed on current progress and activities, and act as a dissemination journal for preliminary results, best practice, useful information, and events of interest. We rely on the contributions of the CORDEX community to ensure the success of the newsletter. If you would like to contribute please contact [CorDex@TCO.science](mailto:CorDex@TCO.science).

### The CORDEX community



The CORDEX community has grown to now include 13 domains.

- |                          |                    |                       |                        |
|--------------------------|--------------------|-----------------------|------------------------|
| • Arctic CORDEX          | • EURO-CORDEX      | • Central Asia CORDEX | • South America CORDEX |
| • North America CORDEX   | • MIO-CORDEX       | • South Asia CORDEX   | • CORDEX Americas      |
| • Central America CORDEX | • CORDEX Africa    | • East Asia CORDEX    |                        |
| • MENA CORDEX            | • Australia CORDEX |                       |                        |

In each newsletter an outline of the activities in selected domains will be provided. It should be noted that some domains have only been recently initiated or their activities are slowly building when compared to the more



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## Building a Network of Young Scholars

### CLIVAR EARLY CAREER SCIENTIST NETWORK

DO YOU WORK IN OCEAN AND EARTH SCIENCE?

ARE YOU INTERESTED IN BECOMING PART OF  
AN INTERNATIONAL RESEARCH NETWORK?

REGISTER NOW!



### CLIVAR Initiative

- Job Listing
- Options to apply for travel expenses to attend WCRP/CLIVAR related meetings and workshops
- Information on applying for funding grants and fellowships
- Access to a global network of researchers
- Regular updates on meetings and workshops
- Opportunities to chair and run sessions at international meetings
- Provide input regarding the future direction of CLIVAR as a whole



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With special thanks to all sponsors



and in particular to IGP for hosting the meeting!

Last but not least:

Many thanks to Silvina and Carlos for their invaluable support!



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Communicating Lessons Learned

THE OFFICIAL MAGAZINE OF THE OCEANOGRAPHY SOCIETY

# Oceanography

## Using Scientific Meetings to Enhance the Development of Early Career Scientists

BY EDWARD R. URBAN JR. AND ROBERTA BOSCOLO

*Early Release available at:*

*[http://www.tos.org/oceanography/archive/26-2\\_urban.pdf](http://www.tos.org/oceanography/archive/26-2_urban.pdf)*



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