



Strengthening European Climate Research

Paolo M Ruti
ECRA Vice Chair

www.ecra-climate.eu

GIURI Meeting
28th January 2013, Brussels

Structure

- Who are we?
- Why coordinate climate research?
- What are our aims and objectives?
- What is the added value?
- CP Arctic Climate Stability and Change

A bit of history

- Official Launch Event

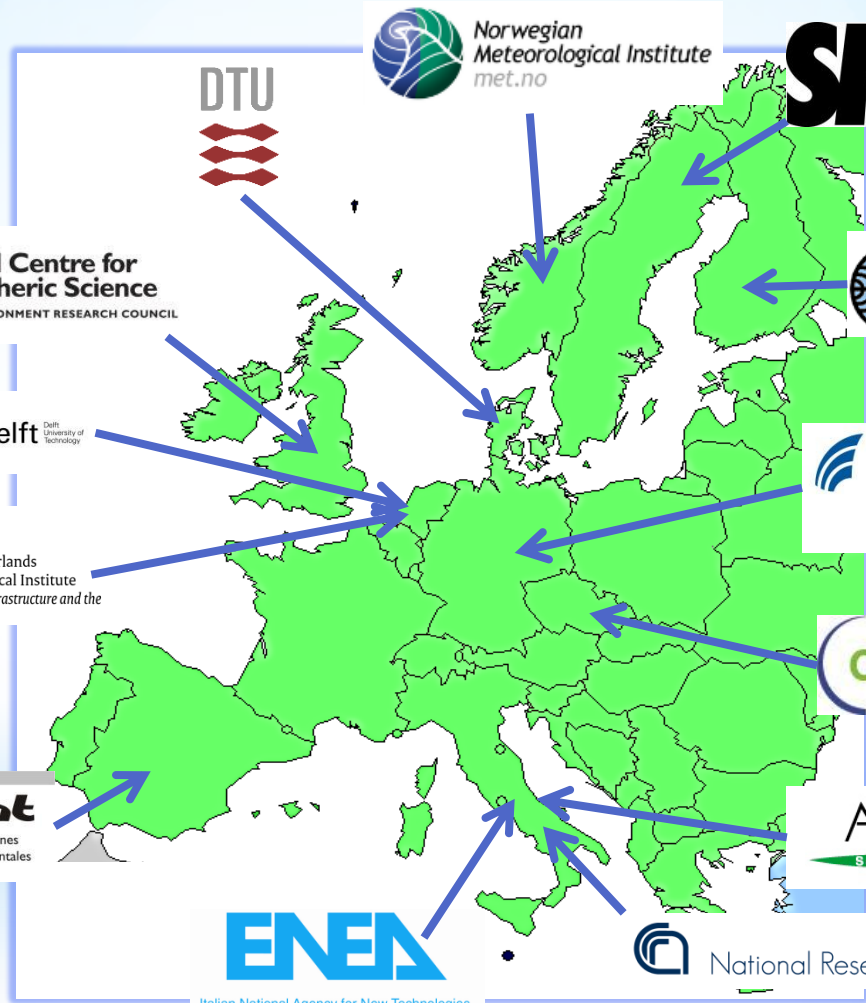


4th October 2011 European Parliament

Current ECRA members

Soon to come:

 Inspiring Business
 LMU
 DMI



 Norwegian Meteorological Institute
 met.no


SMHI

 National Centre for Atmospheric Science
 NATURAL ENVIRONMENT RESEARCH COUNCIL

 FINNISH METEOROLOGICAL INSTITUTE

 TU Delft
 Delft University of Technology

 HELMHOLTZ ASSOCIATION

 Royal Netherlands Meteorological Institute
 Ministry of Infrastructure and the Environment

 CzechGlobe

 GOBIERNO DE ESPAÑA
 MINISTERIO DE CIENCIA E INNOVACIÓN

 Ciemat
 Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas

 AREA SciencePark

 ENEC
 Italian National Agency for New Technologies, Energy and Sustainable Economic Development

 National Research Council of Italy



Navigator

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Workshop announcements

Published on Thursday, 08 December 2011

Announcement of the first European Climate Research Alliance pilot workshops

ECRA pilot workshop: Changes in the Hydrological Cycle

5./6. March 2012, National Research Council of Italy (CNR), Rome, Italy

The goals of the workshop will be to:

- Review the present understanding of the variability and changes of the hydrological cycle in regions where strong ocean-atmosphere (i.e. cyclogenetic areas) or land-atmosphere (e.g. mountains) interactions take place
- Review ongoing research activities and projects in the field
- Discuss the limits and improvements in the observational system
- Discuss model improving strategies
- Identify critical knowledge gaps

If you are interested to participate in this workshop please contact Antonello Provenzale, ISAC-CNR, Turin, Italy and Paolo Ruti, ENEA UTMEA-CLIM, Rome, Italy.

ECRA pilot workshop: Regional Sea Level Rise: a cross cutting theme

14.-16. March 2012, Royal Netherlands Meteorological Institute (KNMI), de Bilt, The Netherlands

The goals of the workshop will be to:

- Review the contributions of the different processes to regional sea level rise along European coasts using existing observations and model data
- Review ongoing research activities and projects in the field
- Discuss the observational requirements for attributing regional sea level change
- Discuss modeling requirements for predictions and projections from years to a century
- Identify critical knowledge gaps

If you are interested to participate in this workshop please contact Caroline Katsman,

News & Events

2011-12-09

Announcement of ECRA pilot workshops

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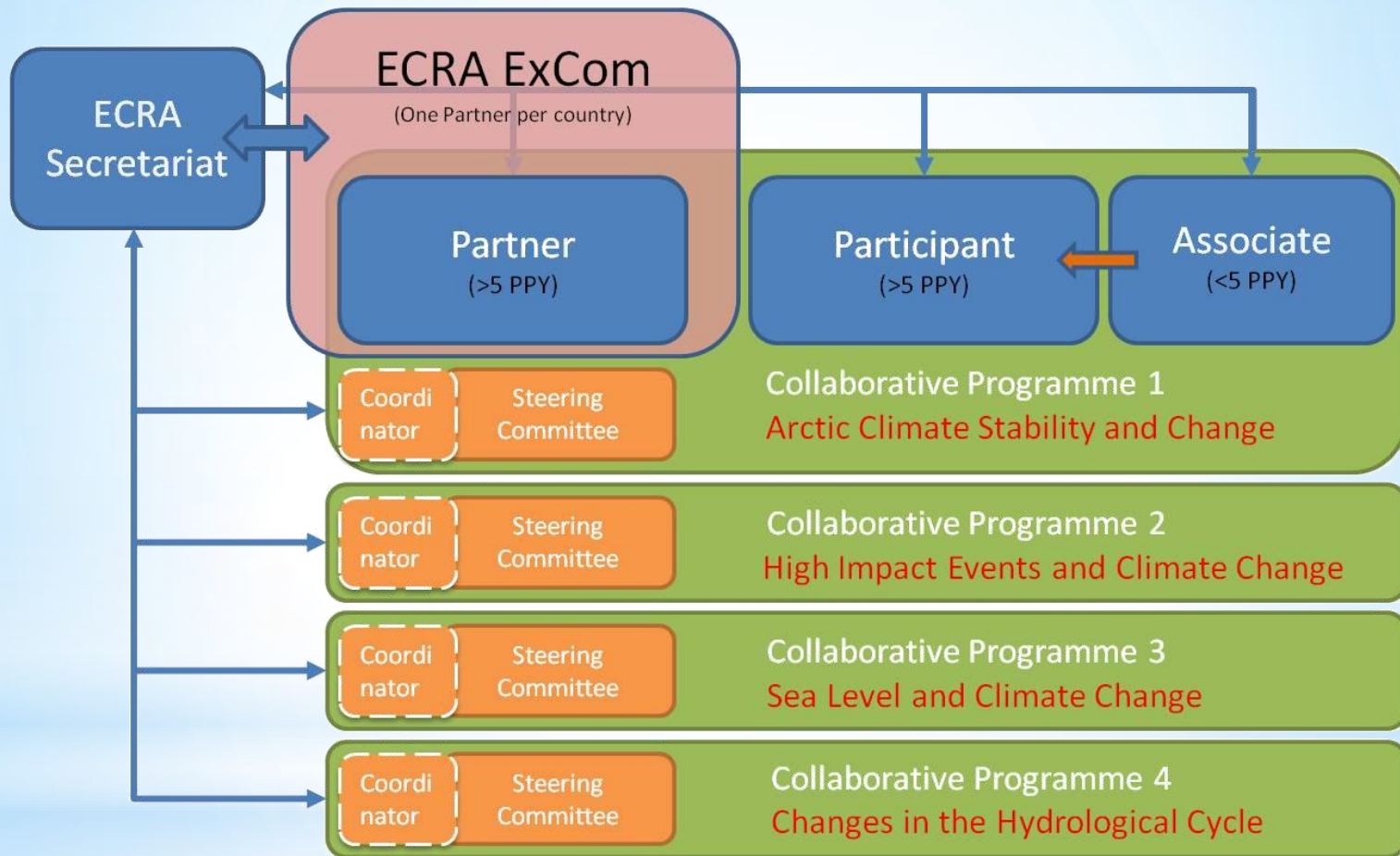
Contact

Dr. Andreas Krell
Secretary

Rue du Trône 98
1050 Brussels
Belgium

Phone: +32 2 5000 983
Fax: +32 2 5000 980
mail: Andreas.Krell(at)ecra-
climate.eu

Governance



PPY: Professional Person Year

Mission statement

To strengthen European climate research capabilities in advancing the understanding of climate variability, predictability and change. ECRA will shape emerging research topics through an efficient network of European research performing organisations in a bottom-up approach. ECRA provides a knowledge base for future mitigation and adaptation measures.



Why coordinate climate research?

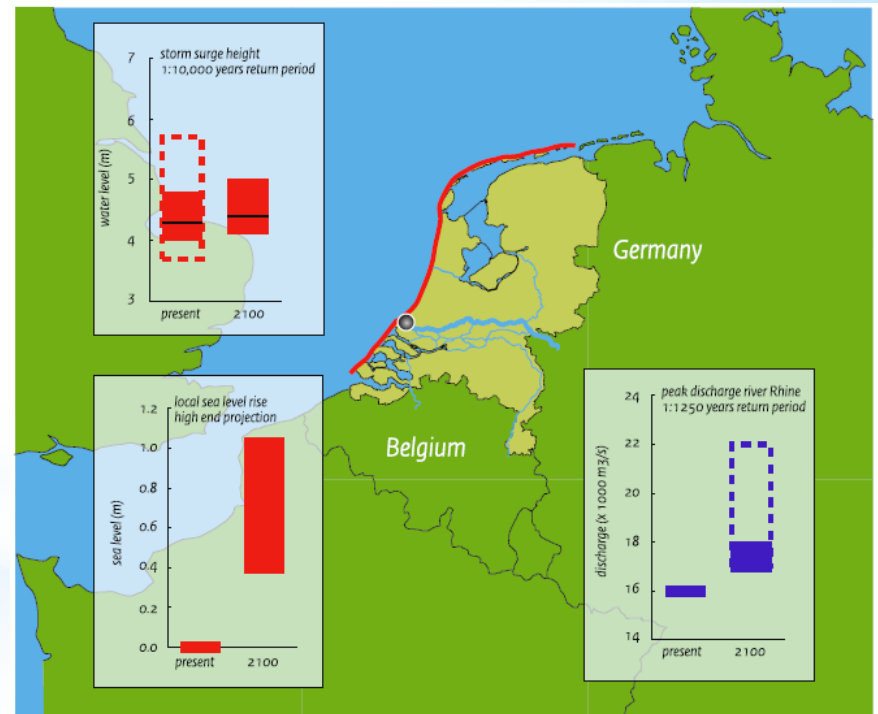
What level of coordination is required to address the challenges facing the climate community on a EU, national and institutional level?

- Address scientific challenges that otherwise could not:
 - Network of experts
 - Infrastructures
 - E.g. regional impacts of climate change

Example

The **national RPOs** provide a regional context in a **European collaboration!** **Specific regional knowledge** becomes available to other partners.

- Example: Sea-level rise
 - Local sea-level rise
 - Storm-surge height
 - Peak discharge (Rhine)



Katsman et al., Climatic Change, 2011

Why coordinate climate research ?

What level of coordination is required to address the challenges facing the climate community on a EU, national and institutional level?

- Address scientific challenges that otherwise could not:
 - Network of experts
 - Infrastructures
 - E.g. regional impacts of climate change
- Better use of public funding:
 - Rationalise, optimise research effort
 - Share cost
 - Respond to societal expectations
- Increasing participative process in science

Aims and objectives

- Strengthens and optimises EU climate research capabilities.
 - Collaborative framework for research performing organisations (RPOs)
 - Long term, durable integration of excellent but dispersed research capacities across Europe
 - Helps to identify complementary strengths and supports synergies
 - ➔ contribute to let the ERA come true
- Allows a fast response to emerging issues: Thematic freedom!
 - New CPs can be initiated easily
 - Balance between continuity (long-term vision) and emerging research needs (CPs can be changed)

ECRA provides a

- Bottom-up approach for research strategy enabled by national RPOs and their resources
- Alignment of on-going and future research activities (national/European)
 - Common strategy to tackle research questions
 - Exchange of information (science, funding)
 - Exchange of personnel (within CPs)
 - Optimised use of existing infrastructure (e.g. data centres)
- Have a strong, unified voice for Climate Research in Europe

Collaborative Programmes

- Vision and Trust
- Long term Strategy and work plan
 - Comprehensive coverage of research topic (minimises gaps)
 - Agreed Objectives and Milestones
 - Agreed Description of Work
- CPs provide topical focus; ECRA provides the comprehensive context
- Respect of national and community objectives
- Collaborative Programmes create cutting edge research by facilitating new partnerships.

Collaborative Programmes

- **Arctic Climate Stability and Change**
coordinated by AWI and Bjerknnes Centre Norway in collaboration with the EPB
- **High Impact Events and Climate Change**
coordinated by NCAS, SMHI and DTU
- **Sea level and Climate Change**
coordinated by KNMI and ENEA
- **Changes in the Hydrological Cycle in connection with HyMex**
coordinated by CNR and LMU

Arctic Climate Stability and Change

- 1st Workshop 14-15 May 2012, Brussels
- 2nd Workshop 8-9 November, Paris
 - Signing MoU EPB/ECRA



Arctic Climate Stability and Change

- Key Questions identified:
 - Why is Arctic sea ice disappearing so rapidly?
 - What are the limits/prospects of Arctic Climate predictability and to improve numerical weather prediction?
 - What are the origins of current changes in the Arctic Climate System?
 - What are the Consequences of extreme Arctic Changes on Europe?
- Further Steps
 - Writing of a Description of Work including implementation (February 2013)
 - Next workshop March 2013, Cambridge
 - Awareness event in the EP
 - White Paper, input to Horizon 2020

RECREATE project

- Call
 - ENV.2013.6.5-5 Network for forward looking activities and assessment of research and innovation prospects
 - CSA, 3mill €, 5 years
 - All activities are contentwise related to the proposed Societal Challenge “Climate Action, resource efficiency and raw materials” as described in the Horizon 2020 communication by the EC.
 - To establish an R&I advisory network to collect strategic information about medium and long term research and innovation trends and prospects
 - Analyse technology, policy and market developments as well as policies and programmes as a base for forward looking activities.
 - Production of quantitative and qualitative briefings with R&I information, trends and strategic options for EU research managers and policy makers.
- RECREATE - REsearch network for forward looking activities and assessment of research and innovation prospects in the fields of Climate, Research Efficiency and raw mATERials
 - 15 Partners, 4 SMEs
 - AWI + DTU, 330k €

Summary and conclusions

- ECRA provides a **bottom-up approach for setting the climate science agenda** enabled by national RPOs and their resources.
 - Regardless of programmatic aspects
 - Independent from funding agencies



Can become the EU climate community reference “science think tank”

- ECRA’s structure is build on **Collaborative Programmes (CPs)** focusing on science questions and priorities



Take immediate action

- ECRA’s mission is to provide the **best possible knowledge base** regarding climate and climate change issues



Strengthen basic science aspects

Future events

3rd Arctic ECRA Workshop

20 - 22 March, 2013

BAS Cambridge, UK

EGU Town Hall meeting

“Shaping future Climate Research in Europe”

Dr Strohmeier, Deputy Director-General Research Programmes

Dr Ruti, ENEA

Prof Visbeck, GEOMAR

9 April, 2013 (tbc)

Vienna, AT



Thank you!

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



European perspective

- National RPOs from 10 European countries
- National RPOs are embedded in
 - National networks (this may include ECRA participants and associates, but are usually much wider)
 - International networks (European RPOs not in ECRA and international partners)

The **national RPOs** provide a regional context in a **European collaboration!** **Specific regional** knowledge becomes available to other partners; this enables collaborations on related but slightly different issues.

Summary and conclusions (2)

ECRA will engage

- To establish how fundamental research can benefit applied research and societal needs
- To identify synergies
- To coordinate activities
- To provide knowledge
- To benefit from user engagement