



# EUROPEAN POLAR BOARD

## Arctic Climate Stability and Change (Arctic ECRA)

*A Memorandum of Understanding between the European Climate Research Alliance  
and the European Polar Board on a Collaborative Programme on Arctic Climate*

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## I. Preamble

On 4<sup>th</sup> October 2011 a group of leading climate research Organizations from eight European countries established the European Climate Research Alliance (ECRA). This alliance constitutes a powerful network for tackling the scientific challenges of climate change in a combined effort.

The alliance will coordinate the capacities of the individual members in a targeted manner to perform collaborative research programmes. Through optimized exchange and sharing of personnel resources, modelling capacity, expeditions and research infrastructure ECRA aims to better understand the complex Earth system and find meaningful adaptation strategies for Europe.

In this framework, Polar Regions are playing a crucial role. There is growing concern about rapid climatic changes occurring in the Arctic Region and its relevance for future development of European and global climate. All recent assessments indicate the urgent need for increased observations in the Arctic, for open exchange of data and for improved modelling of polar climate and predictability.

The European Polar Board includes members belonging to several European and international organizations, networks and initiatives (National Institutions, IASC, SCAR, SIOS, INTERACT and further initiatives).

Thanks to the results achieved from the EC project EUROPOLAR Era-Net and the subsequent Polar Climate Call the EPB is able to contribute to Arctic ECRA with expertise, recommendations and management of joint scientific initiatives.

In this framework, a Collaborative Programme between ECRA and the European Polar Board has been established as described in the following.

## II. Rationale

The rapid warming trend in the last decades is actually an area of particular concern. It is definitively affecting the sea ice coverage of the Arctic Ocean, the loss of ice mass from the Greenland glaciers, the thawing of the permafrost regions, the changes in the hydrological cycle in the northern hemisphere, the impacts on biodiversity and ecosystem functioning.

Similar processes of rapid warming trends occur on the Antarctic Peninsula while East Antarctica seems to remain fairly unaffected. Comparison of both Polar Regions is important to understand key processes of climate control and the response of ice cover and ecosystems to climate change.

Climate observations in the polar areas depend heavily on the availability of adequate infrastructures, such as ice breakers, polar research stations, air planes or long term observations of different variables. It is recognized that increased international collaboration is urgently required in order to accomplish the high demand on polar climate research.



### **III. The Collaborative Programme “Arctic Climate Stability and Change” (Arctic ECRA)**

The European Polar Board (EPB) endorses the implementation of the “Arctic Climate Stability and Change” (Arctic ECRA) programme, a collaborative initiative under the umbrella of the European Climate Research Alliance aiming to strengthen the scientific and technological capabilities for Arctic climate research within Europe. It addresses collaboration in scientific work, sharing of infrastructure and exchange of scientists and technicians.

The Collaborative Programme “Arctic Climate Stability and Change” (Arctic ECRA) will adhere to the general rules outlined by the ECRA Governance.

#### **a. Scientific Objectives**

The Collaborative Programme “Arctic Climate Stability and Change” (Arctic ECRA) will provide an institutional platform for Arctic climate research in Europe. The Programme focuses on specific research topics that are envisaged to be developed into research collaborations in workshops during 2012. Participation in these joint projects is open to all interested research institutions depending on the specific interest of the respective institution.

In this framework, specific MoUs between relevant scientific international organizations (e.g. IASC, SCAR) and networks (e.g. SAON, SIOS, INTERACT) will be considered for implementing scientific strategies.

#### **b. Integration of Capacities**

The Collaborative Programme also provides a strategic vision for integration of research capacities for Arctic climate research. It aims to:

- Work towards a long term, durable integration, optimising the shared use of present resources, and collaborating in the development of advanced research infrastructures for polar climate research.
- Improve the long term observation capacity in the Arctic and Antarctic and data sharing.
- Initiate and execute on European level large fundamental and comprehensive cooperation for Arctic climate research.
- Improve joint training, education and outreach activities.
- Provide advice to policy and public in respect to Arctic climate change.

In order to achieve the key objectives the Collaborative Programme will explore possibilities of combining the existing 'own' resources (expertise, infrastructures as appropriate) from participating European polar research institutions according to agreed rules. The Programme will attract additional resources from other sources adding to scale and impact while ensuring coherence with other activities in the same fields.

#### IV. Governance and Terms of Reference

The Arctic ECRA Collaborative Programme is coordinated by a joint Steering Committee of the European Climate Research Alliance and the European Polar Board, hereinafter indicated as Arctic ECRA Steering Committee.

The Arctic ECRA Collaborative Programme adheres to the general ECRA governance and ECRA Collaborative Programme governance with the following additions:

The Arctic ECRA Steering Committee (AESC) is composed by one representative of the institutions and organizations participating in the Collaborative Programme and by a maximum of three members or external experts appointed by the EPB Plenary Assembly and agreed by ECRA on the basis of proposals by the AESC itself and the requirements of the scientific programme.

The Chairman of the EPB is a member of the AESC, as well as at least one member of the Executive Committee identified by the Committee itself.

The AESC reports to the ECRA Executive Committee and EPB Plenary Assembly. Both bodies approve the annual report and make recommendations on future activities.

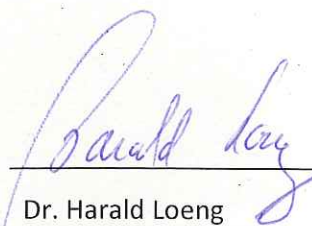
The AESC will play a role in the following frames:

- To create additional synergies between the Arctic ECRA participating institutions and other EPB members and relevant Polar scientific organizations
- To promote and coordinate joint high-profile scientific and technological initiatives in priority fields relevant to the Arctic ECRA's priority actions in which it is a key player, also based on the EPB's Green Paper.
- To facilitate the development of participation and capacity building of the smaller Polar Organizations
- To detect the complementarities and the specificity of the European Polar infrastructures and to offer a forum for implementing the coordination and the interoperability among the participating members.
- To maximise the shared use of the European Polar stations and facilities and to develop code of conducts.
- To implement the MoU «Polar Framework» signed in Brussels on June 2009.

Paris, 8 November 2012



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