

Scientific Partnership

between the

World Climate Research Programme (WCRP)

(Geneva, Switzerland, hereafter "WCRP")

and the

Past Global Changes (PAGES) Project

(Bern, Switzerland, hereafter "PAGES")

1 Parties of this Partnership

This Partnership has been undertaken between PAGES and WCRP, hereafter called “Parties”.

PAGES (Past Global Changes) supports research aimed at understanding the Earth’s past environment in order to understand patterns and mechanisms of variability (both pre-anthropogenic and under the influence of humanity) and to constrain projections for the future. Founded in 1991, PAGES is funded by the U.S. and Swiss National Science Foundations, and the National Oceanic and Atmospheric Administration (NOAA). PAGES currently exists as a core project of the International Geosphere-Biosphere Programme, with designation to join Future Earth by 2015. It is overseen by a Scientific Steering Committee (SSC) comprised of members chosen to provide balanced expertise in the major techniques, disciplines and geographic regions that contribute to paleoscience, with attention to issues of diversity relative to national origin, gender, and ethnicity. Over 6,000 scientists from more than 100 countries around the world conduct research within the PAGES sphere of interest.

WCRP is an international research programme co-sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the International Council for Science (ICSU). A Joint Science Committee (JSC) with international and interdisciplinary membership agreed by the three sponsors oversees the goals and activities of WCRP. The WCRP Mission is to facilitate analysis and prediction of Earth system variability and change for use in an increasing range of practical applications of direct relevance, benefit and value to society. The two overarching objectives of the WCRP are to determine the predictability of climate and the effect of human activities on climate.

2 Background

The World Climate Research Programme (WCRP) stimulates and coordinates research into climate change and climate variability through a variety of projects and working groups covering interlinked land, ocean, atmosphere, and ice processes using a complex array of observations, reanalysis and models. In time span the WCRP foci cover from a few weeks to a few centuries. In almost all cases the WCRP research, analysis and

modeling activities draw on or even require data and understanding developed from ice cores, ocean sediments or other paleoclimate records extending far into the past. PAGES scope of interest includes the physical climate system, biogeochemical cycles, ecosystem processes, biodiversity, and human dimensions, on all time scales, but with special focus on the Pleistocene, Holocene, last millennium and the recent past.

PAGES and WCRP presently recognize convergence in their interests and activities and the existence of substantial mutual collaboration. Fundamental understanding of the global carbon cycle and its impact on climate, for example, derives equally from ice core records of atmospheric CO₂ going back nearly one million years and from calibrated and validated models of future CO₂-induced warming. Research from both PAGES and WCRP contributes substantially to IPCC Assessment Reports. Both PAGES and WCRP seek to maintain flexibility in budget and structure to respond to 'bottom-up' initiatives that arise from the climate and paleoclimate communities.

Anticipating growing need and opportunity to coordinate research and planning, PAGES and WCRP establish this Scientific Partnership.

3 Parties, subject and scope of this Partnership

The Parties agree to maintain this Partnership for the mutual benefit of both Parties. This document sets out the intended goals and activities of the Partnership as well as responsibilities for each Party.

4 Activities of Collaboration and Partnership.

4.1 Who: Official addresses and contact information

The official address of WCRP will be:

World Climate Research Programme
c/o WMO
7bis, avenue de la Paix
Case postale 2300
CH-1211 Geneva 2
Switzerland

Official correspondence concerning WCRP should go to its Director, David Carlson, dcarlson@wmo.int.

The official address of PAGES will be:

PAGES International Project Office
Falkenplatz 16
3012 Bern
Switzerland

Official correspondence concerning PAGES should go to its Executive Director, Thorsten Kiefer, [kiefert@pages.unibe.ch](mailto:kiefer@pages.unibe.ch)

4.2 What: Elements of collaboration and partnerships

The Parties will develop explicit activities of mutual interest focused on enhancement of climate and paleoclimate research. These activities might include workshops, ad hoc or on-going shared working groups or panels, jointly sponsored and produced reports or assessments, convergent and interoperable data sets and databases, integrated models, joint sessions at international conferences, collaborative proposals, public outreach and education, or other activities or products of mutual interest.

4.3 How: Enhanced communication and research planning

The Parties will establish sustained communication and mutual research planning at several levels, starting from the director and steering committee level and extending as necessary and useful into the project and working group levels of both WCRP and PAGES. This communication and planning collaboration might include elements such as shared calendars, mutual representation on steering committees, coordinated activities on data or modeling, and other regular or ad hoc interactions as identified by the parties. Each Party will announce and promote this scientific partnership on their respective websites and other publications where appropriate.

4.4 When: Upcoming actions and activities

The directors of PAGES and WCRP together with the co-chairs of the WCRP Joint Science Committee and the PAGES Scientific Steering Committee will identify a small scoping committee, consisting of appropriate members from within the research communities of

each Party, and charge and support that committee to develop a WCRP-PAGES interactions and collaborations synopsis for approval by the full steering groups of both organizations. The scoping effort will identify opportunities for episodic and on-going research collaborations between PAGES and components of WCRP including, but not limited to, the WCRP CLIVAR (Climate Variability) project. Presuming multiple opportunities identified by the scoping committee, the JSC of WCRP and the SSC of PAGES may choose to endorse and initiate specific actions and to review progress of those activities at subsequent meetings.

5 Financial and Administrative Commitments of the Parties

5.1 Nothing in this agreement commits or requires either Party to expend or exchange funds or other resources. Mutually-agreed funding exchanges or joint funding of agreed activities will require active communication, close coordination of proposal plans and decisions, and, when necessary, separate mutually-agreed and signed Letters of Agreement between the Parties.

5.2 The Parties agree to institute administrative cooperation as necessary, at the director level, to support the overall goals and mutually-agreed tasks of this Partnership.

5.3. The parties invite representatives of the collaborating party to the meetings of their steering bodies.

6 General provisions

6.1 Amendments and additions to the Partnership

This Partnership document describes the intended relationship of and collaboration between the Parties. There are no existing collateral agreements and any earlier official or unofficial agreements are hereby terminated. Amendments and additions to this Partnership are only valid if made in writing and signed by both Parties.

6.2 Obligation of assistance

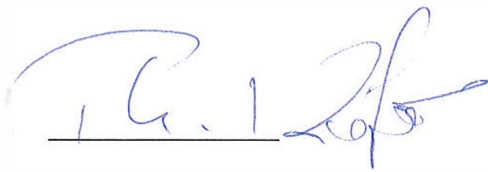
The Parties will provide each other promptly, to the extent possible, with any mutual assistance required to enable this Partnership. In particular they agree to provide timely information and cooperation in advance of JSC or SSC meetings and to ensure, again to the extent possible, timely cooperation on joint proposals.

7 Term and right of termination

This Partnership will enter into force once it is signed by the Parties and endorsed by the WCRP JSC and PAGES SSC, and be valid for 3 years. This Partnership can be renewed.

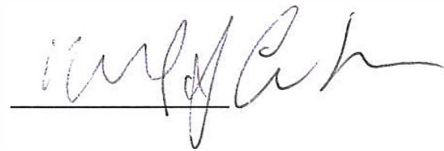
If either Party desires to terminate this Partnership prematurely, it should submit a justification in writing to the other Party at least 3 months in advance. Upon receipt of such letter both Parties will work together to plan the way forward.

Signed by the duly authorized representatives of the Parties:



Dr Thorsten Kiefer
Executive Director
PAGES International Programme Office

Bern, October 2014



Dr David Carlson
Director
World Climate Research
Programme

Geneva, October 2014