



Title of activity Permafrost Research Priorities - A Roadmap for the Future					
Type of activity	Date	Place			
Online questionnaire,	2014 to 2015	Online, Various locations			
henchmark nublication					

## Main organizer(s) (name and/or organization) and additional partners

The PRP Core group is composed of the following individuals:

- ► Hugues Lantuit (AWI, Germany, Chair)
- ► Michel Allard (Université Laval, Canada)
- ► Mauro Guglielmin (Insubria University, Italy)
- ► Margareta Johansson (Lund University, Sweden)
- ► Gleb Kraev (Centre for Forest Ecology and Productivity, Russian Federation)
- ► Michael Krautblatter (Technical University of Munich, Germany)
- ► Gerhard Krinner (LGGE Grenoble, France)
- ► Edward A. G. Schuur (Northern Arizona University, USA)
- ► Ylva Sjöberg (CliC Fellow, Stockholm University, Sweden)
- ► Jenny Baeseman (CliC Director, Ex-Officio)
- ► Karina Schollän (IPA Executive Director, Ex-Officio)

#### Organizers:

Consultation Process organized by the International Permafrost Association (IPA) and the Climate and Cryosphere Project (CliC)

#### Endorsed by:

Scientific Committee on Antarctic Research (SCAR)

IASC Cryosphere WG

Permafrost Young Researcher Network (PYRN)

Association of Polar Early Career Scientists (APECS)

### Abstract<sup>1</sup>

The International Permafrost Association (IPA) and the Climate and Cryosphere project (CliC) were invited to participate in the Third International Conference on Arctic Research Planning (ICARPIII) process, led by the International Arctic Science Committee (IASC). The IPA and CliC, acknowledging that no consensus document exists at the international level to identify forward-looking priorities in permafrost research, decided to initiate a process by which such a document, focusing on permafrost research at large (i.e. including Arctic, Mountain, Antarctic and Sub-sea permafrost) would be published based on the engagement of the permafrost research community.

The aim of the Permafrost Research Priorities (PRP) process, which follows the Sutherland et al. (2011) method as did the SCAR Horizon Scan and other efforts, is to establish a concise set of  $\sim 15$  - 20 key research priorities for the next ten years, as agreed upon by permafrost researchers, and with input from researchers in cognate scientific disciplines. The target audience of the exercise is three-fold:

<sup>&</sup>lt;sup>1</sup> Provide a short summary of the activity

- 1. The research community;
- 2. Funding agencies and
- 3. Policy-makers.

Through community consultation in the form of an online questionnaire, more than 300 people submitted in total almost 650 potential priority questions for future permafrost research. submitted questions can be found at http://www.climatecryosphere.org/media-gallery/1288-2014-10-06-prp-questions. Demographically, respondents came from 37 countries; a majority were men (69%), working in academia (68%), and with a Ph. D. as their highest degree (79%). The submitted questions considered arctic (55% of questions), mountainous (31%), antarctic (19%), and planetary (6%) permafrost geographically, and regarded themes such as climate change (55%), the carbon cycle (23%), ecology (21%), and the ground thermal regime (21%). In the next phase of the project these questions will be ranked through a community voting process, for identifying the top 15-20 questions. For highlighting the input from early career researchers (ECR) on future permafrost research priorities, a similar but parallel project was carried specifically for ECRs, headed by ECRs from PYRN, APECS, ADAPT and PAGE21.

The outcomes of the PRP project will be communicated widely, with specific focus on the target audiences. The PRP products will include a high level, but short benchmark publication that lists and puts into context research priorities for 2015 to 2025.

References: Sutherland, W.J., Fleishman, E., Mascia, M.B., Pretty, J., and Rudd, M.A., 2011: Methods for collaboratively identifying research priorities and emerging issues in science and policy. Methods in Ecology and Evolution 2: 238-247.

# Main contributions to ICARP III<sup>2</sup> in terms of the ICARP III priorities<sup>3</sup>

The PRP has through a transparent process engaged the permafrost research community in a process for identifying future research priorities, with over 300 people participating so far. This has been achieved with support from established organizations and networks for permafrost and polar sciences, such as the IPA and CliC (as organizers), SCAR, IASC, PYRN, and APECS. The steps along the process have been openly communicated to the permafrost research community for full transparency. The project is ongoing and as such no final recommendations for future permafrost research priorities will be ready for the ICARP III Toyama meeting. The final outcomes of the project will be communicated to the Arctic research community, policy makers, and people who live in or near the Arctic. The PRP Core Group strives for involving not only researchers but also policy makers and funding agencies in the process. The outcomes of the project will be communicated widely to the larger scientific community, policy makes and local stakeholders in the Arctic.

identify Arctic science priorities for the next decade

<sup>&</sup>lt;sup>2</sup> List a few key statements (findings, priorities, recommendations) that you would like to see reflected in the overarching ICARP III products

<sup>&</sup>lt;sup>3</sup> ICARP III priorities:

<sup>•</sup> coordinate various Arctic research agendas

<sup>•</sup> inform policy makers, people who live in or near the Arctic and the global community

build constructive relationships between producers and users of knowledge