

## Call for Proposals

### Focused projects on Risk Analysis for Global Challenges

The High Performance and High Productivity Computing Platform (HP2C) invites the submission of proposals focused on applications of high performance computing to risk analysis for global challenges.

These projects should focus on advances in mathematical methods, algorithms and computational techniques to better exploit next generation supercomputing platforms for the analysis and forecast of global challenges, including climate change, regional weather prediction, natural hazards, but also social challenges like major disruptions in financial markets. Given the short duration and the limitation of budget, projects are expected to focus on methodological development and testing to prove the feasibility and impact of the new methods proposed. Projects focused merely on methods and algorithms for current low-end computer platforms will not be supported.

Projects will be developed by one or more groups in a Swiss higher education institution, in close cooperation with the HP2C core group at CSCS and USI, which will provide scientific computing expertise (computational mathematics and computer science). The application developers from the project will also have access to the prototype computing hardware operated and maintained at CSCS.

Additional information on the HP2C initiative and on funded domain sciences projects can be found at URL <http://www.hp2c.ch>.

**Project duration.** Projects are expected to start 01.01.2011 and to have a maximum duration of 24 months.

**Finances.** A maximum amount of 1 mio. CHF is reserved to this call; the HP2C platform expects to support 2-3 projects. Each project has to provide matching funds. These can be in-kind and must be at least equal in value as the requested support from HP2C.

**Eligible participants.** Main project applicants have to be at one of the Swiss cantonal universities; participation from groups in the Federal Institutes of Technology, Universities of Applied Sciences and other public research centers is possible, but only limited support will be available.

**Proposal submission.** Complete project proposals must be submitted in PDF format via email to [projectoffice@hp2c.ch](mailto:projectoffice@hp2c.ch) by September 15, 2010 (23:59 PM). Applicants are requested to submit the following information:

- The proposal narrative.
- The budget forms.
- The CV of the principal investigator (PI) and co-PIs.
- The list of five more relevant publications in the domain of the PI and co-PIs.

All documents have to be submitted in pdf format.

All call documents and templates are available on the following website: <http://www.hp2c.ch/about/call-focused-projects/>

**Advance notice.** Applicants are requested to notify their intention to submit an application by August 31, 2010; the advance notice should include the title of proposal, names of applicants and a short summary. Applications where an advance notice has not been submitted will not be considered for evaluation.

### Format of the proposal narrative

Proposal narrative will have the following structure:

1. Cover page including basic project data (see template)
2. Project summary (max 2 pages)
3. International standing of applicants
4. Proposal narrative (max 15 pages) including the following sections:

- Background and significance.
  - Proposed research: goals, justification, and description of research/development tasks.
  - Required resources, including embedded developers in domain science group, personnel in the core group, as well as prototype hardware / software.
  - Timeline and milestones.
  - Project organization, including a description of interaction between software developers and domain scientists (developers of models and methods as well as anticipated users of the software stack) and the interactions with the scientific computing core group.
  - Expected results and their impact.
5. References

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