

Photo: James Balog

## **Top-level Research Initiative**

## Climate Changes' Interaction with the Cryosphere

The cryosphere is the common term for those areas of the Earth where the water is in the solid form. That is sea and freshwater ice, river ice, snow cover, glaciers, permafrost and ice caps. The direct impact of the cryosphere on society and industry in the Nordic region and the geographical proximity of the Nordic region to the Arctic as well as the long historical connection to this area, make the Nordic countries especially suitable for accomplishing joint research programmes within this topic. The knowledge produced by such a research programme is relevant not only for the Nordic region, but also in a global perspective. The climate changes are experienced early and most intensively in the polar regions, and provide an early indication of the impact of global warming on the environment and society.

Some objectives of the sub-programme are to reinforce Arctic research cooperation in the Nordic region and

internationally, to improve modelling of the climate change interactions with the cryosphere, and provide results for infrastructure risk assessments and possibilities.

The sub-programme is launching a call for Nordic Centres of Excellence (NCoE) at the end of October 2009. The committee utilises the NCoE programme to promote research of very high scientific quality by ensuring efficient and flexible use of the Nordic resources in order to create critical mass and added value within this research theme. The call welcomes applications for Nordic Centres of Excellence on scientific observations, analyses and modelling on cryosphere-climate interactions. The focus will be on Nordic and Arctic regions. The budget for this sub-programme is approximately 100 MNOK over five years.



NordForsk Nordic Innovation Centre Nordic Energy Research

## Top-level Research Initiative

 a major Nordic venture for climate, energy and the environment

The world's major climate and energy challenges demand new knowledge and innovations. The Nordic countries are particularly well placed to contribute to this, due to their high level of education, political will to act, and abundance of natural resources.

The Top-level Research Initiative was initiated by the Nordic Prime Ministers in 2008, and is supported by national institutions and agencies, in particular those financing research and innovation. The initiative will promote research and innovation of the highest level, involving the very best agencies and institutions. Great importance is attached to a close partnership with business and industry to ensure application and utilisation of research results.

The Top-level Research Initiative shall provide a platform for increased international cooperation both within the EU and beyond.

The initiative will last for five years. Calls for proposals begin in the autumn of 2009.

## **Top-level Research Initiative Programmes:**

- 1 Effect Studies and Adaptation to Climate Change
- 2 Climate Changes' Interaction with the Cryosphere
- 3 Integration of Large-scale Wind Power
- 4 Sustainable Biofuels
- 5 Nanotechnology and Energy Efficiency
- 6 Carbon Capture and Storage

For further information, Climate Changes' Interaction with the Cryosphere, please contact:

Chair of the Programme Committee

Magnus Friberg, The Swedish Research Council, magnus.friberg@vr.se Phone +46 8 546 44 122

Programme secretary

**Michael Andersson**, michael.andersson@nordforsk.org Phone +47 941 68 547

NordForsk, Stensberggt 25, 0170 Oslo, Norway