



norden

Top-level Research Initiative



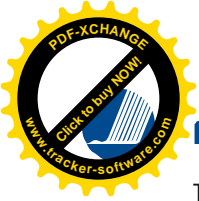
Nordic Research Collaboration

Harri Hautala
Science Adviser, Academy of Finland
4th Nordic Conference on Climate Change Adaptation
The Top-level Research Initiative (TRI) side-event
Bergen, 31 August 2016



Nordic Research Collaboration from the perspective of Program Committee 2 (ICCC)

Interaction between Climate Change and the Cryosphere – a joint effort to integrate cryosphere dynamics in Global Earth System Models



norden

Top-level Research Initiative



Nordic Research Collaboration from the perspective of ICCC

3 Nordic Centres of Excellence (NCoE's) during 2011-2016:

1. SVALI (Stability and Variation of Arctic Land Ice)
2. CRAICC (Cryosphere-Atmosphere Interactions in a Changing Arctic Climate)
3. DEFROST (Depicting Ecosystem-Climate Feedbacks from Permafrost, Snow and Ice)

+ A Program Committee (ICCC) consisting of the Nordic country representatives led by NordForsk.

+ A scientific Advisory Board (SAB) consisting of several cryosphere and climate change research experts led by Professor Mark C. Serreze from University of Colorado Boulder, USA.

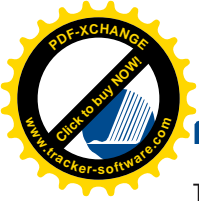


Nordic Research Collaboration from the perspective of IPCC

The IPCC was initiated to the identified need to better understand the cryosphere and changes in it and to parametrize cryosphere processes. This input was needed especially in the work of IPCC in order to estimate future climate changes with global climate and Earth System Models (ESM's).

The original objectives were:

- ü To support science driven questions of high interest to society, science, industry and/or national infrastructure in order to:
- ü Improve our understanding of the cryosphere stability, dynamics and interaction with climate change,
- ü integrate field and laboratory measurements with climate models and Earth System Modelling,
- ü enhance the cooperation between academy, industry, public authorities and policy-makers to meet the future challenges provided by climate changes and
- ü to reinforce the Nordic climate research institutions as attractive partners in international research collaborations



norden

Top-level Research Initiative

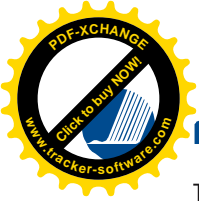


Nordic Research Collaboration from the perspective of IPCC

The Original Main Expectations for the NCoE's:

- ü Virtual centre with common objectives and coordination
- ü Research of excellent scientific quality
- ü Attractiveness of Nordic research beyond the Nordic Region
- ü Efficient and flexible use of Nordic resources
- ü Efficient research and research training environment
- ü Possesses critical Nordic mass
- ü Mobility of researchers
- ü Collaboration between disciplines
- ü Participants from industry, policy makers and societal parties should be included in the NCoE when relevant

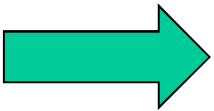
Other expectations: Do world leading research, foster a new generation of cryosphere scientists, cooperate – within Nordic countries and internationally, involve society and industry in the programme, improved cryosphere models for IPCC...etc.



Nordic Research Collaboration from the perspective of IPCC

The Nordic Collaboration Model

- ü IPCC is part of the TRI with a strong political backing
- ü The Nordic Prime Ministers laid the foundation in 2008 for the largest joint Nordic effort to promote research and innovation ever undertaken, focusing on climate, energy and the environment
- ü Political support originates in the TRI high-level management board and in the Nordic research funding organizations of all five countries represented in the Programme Committee
- ü The programme builds on a long tradition of Nordic spirit of cooperation based on common history, values and trust, but also both on a formalised and non-formalised level.



The purpose of Nordic cooperation is, on the one hand, to make it attractive to live, work and do business in the Nordic Region, and on the other hand, to strengthen the Nordic countries internationally.



norden

Top-level Research Initiative



Nordic Research Collaboration from the perspective of ICC

Organisation (meet around once a year)

ICCC Programme committee (PC)
supervision, steering and decision

Scientific Advisory Board (SAB)
About 5 non-Nordic experts
Recommendations to PC, proposes improvements

NCoE
SVALI

NCoE
CRAICC

NCoE
DEFROST



Nordic Research Collaboration from the perspective of ICC

- Annual reports from the NCoE's
- Annual SAB meetings with NCoEs
- NCoEs report their activities to SAB at meetings
- SAB reports to Program Committee
- SAB can recommend changes in plans and structure
- NCoEs take advice from the instructions from SAB



norden

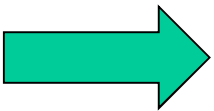
Top-level Research Initiative



Nordic Research Collaboration from the perspective of IPCC

The Funding Model

- ü The funding model of ICCC has proven to be successful.
- ü An impossible-to-be- thought cross-border common pot funding model has been realised, not intended to substitute national funding
- ü Financiers represent the five Nordic countries, Nordic Council of Ministers and Nordic organisations.
- ü This funding model is possible since we are both historically and socially closely located.
- ü The call for proposals and the evaluation were based more on what is to be done and who does it best, rather than where do the applicants come from.



A very modest amount of funding has led to high impact results and best practices in research collaboration!



norden

Top-level Research Initiative

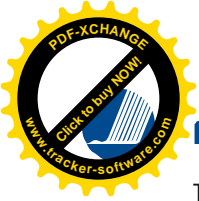
Nordic Research Collaboration from the perspective of IPCC

The Main Outcomes

- ü Excellent and interactive research collaboration between the 3 NCoEs
- ü World leading international quality research on the interaction between climate change and the cryosphere with high societal and scientific impact
- ü High number of scientific papers published in high profile journals w/ high visibility
- ü Extensive support and education of early career scientists – the next generation of the researchers
- ü Unique collaboration in developing graduate schools with cooperative PhD education between Nordic universities



The programme has given a strong fundament for future collaboration both on the Nordic and international level.



norden

Top-level Research Initiative

