

Nordic collaboration on eScience and eInfrastructure

Baltic Sea Strategy and the Internal Market
Tallin, Estonia 16-17 september, 2010

Fredrik Melander
Senior Advisor, Nordic Council of Ministers

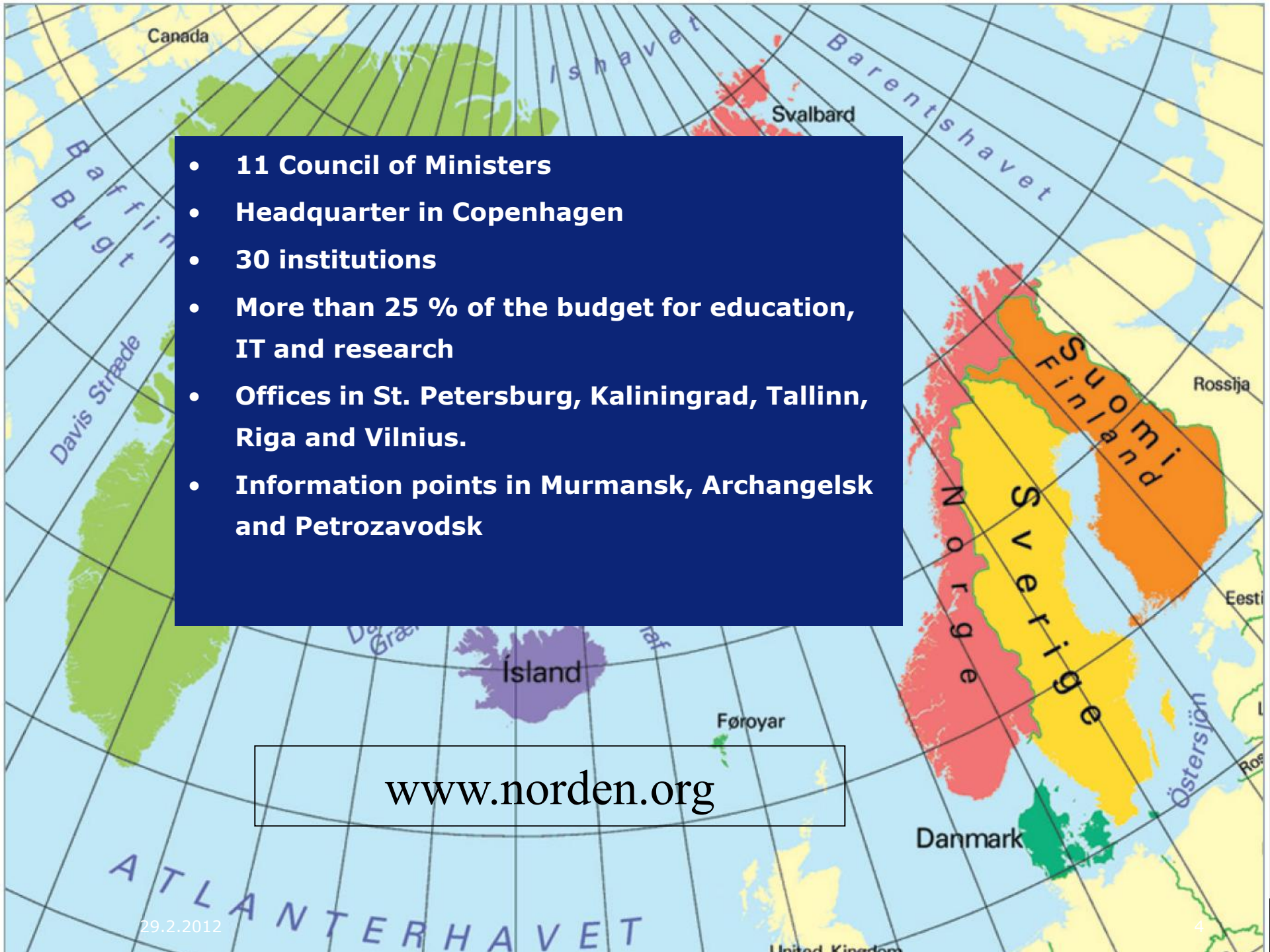
- Nordic Council of Ministers
– Governments

- Nordic Council
– Parliamentarians

What is Nordic Council of Ministers

- **Countries**
 - Iceland
 - Denmark (Presidency 2010)
 - Norway
 - Finland (Presidency 2011)
 - Sweden
- **Autonomous Areas**
 - Greenland
 - Faroe Islands
 - Aaland Islands

Cooperation between governments

- 
- **11 Council of Ministers**
 - **Headquarter in Copenhagen**
 - **30 institutions**
 - **More than 25 % of the budget for education, IT and research**
 - **Offices in St. Petersburg, Kaliningrad, Tallinn, Riga and Vilnius.**
 - **Information points in Murmansk, Archangelsk and Petrozavodsk**

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The Nordic Globalisation Initiative



19.6.2007 - Nordic premiers meet at Punkaharju to promote more skilled, visible and thriving Nordic region

Nordic premiers held their summer meeting on 18 and 19 June at Punkaharju. The premiers shared a positive attitude towards the opportunities and challenges of globalisation for the Nordic countries.



They want to utilise these opportunities and meet the challenges by developing further the Nordic model, the fundamental parts of which are citizens' future welfare, competitiveness of enterprises, employment and economic growth, as well as a common culture and investment in sustainable development.

The premiers also want develop the strengths of the Nordic countries, the high-standard and extensive education system, expertise and research work, the ability to utilise information technology, as well as creative implementation of innovations.


Therefore, the premiers agreed to launch a new Nordic endeavour in globalisation. The synergy benefits of the work carried out at the European and regional level will be utilised in the implementation. More profound co-operation with the Baltic countries reinforces the competitiveness of the entire Baltic Sea region and increases opportunities to utilise globalisation.

Institutional and organizational set-up in relation to eScience and eInfrastructure




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 - Standard Terms/Conditions of Contract
- NORIA-net
- Nordic Centres of Excellence (NCoE)
 - NCoE Food, Nutrition and Health
 - NCoE Welfare
 - NCoE HumSam
 - Previous programmes
- Networks
 - Researcher networks
 - Networks of national CoE
 - Networks of national research schools
- Nordic Research Infrastructure
- Nordic Stem Cell Mobility Programme
- Private Public Partnership PhD
- Thematic programmes
 - Sustainable freight and logistics
 - Climate and primary industries
 - LILAN
 - Previous programmes
- Research Schools | Research Training Courses

"A New Deal for ERA. Lessons learnt from Nordic R&I cooperation?" - NORDERA final seminar November 25th (08.09.2010)

 What can Europe learn from the Nordic experiences on research cooperation? Can the Nordic region be a model for regional cooperation? Can Nordic experiences contribute to the realization of ERA? These questions are up for discussion at the NORDERA final seminar in Brussels November 25th.


[Read more >>](#)

The future belongs to the entrepreneurial mind! (31.08.2010)

 Experiences, advantages and challenges from PPP PhD projects made up the focal point of a "get-together day" in Oslo on 25 August 2010, staged by NordForsk and facilitated by Monica Lund and Maria Nilsson of NordForsk.


[Read more >>](#)

Welcome to the Annual Conference of the Top-level Research Initiative 15.-16. September! (15.08.2010)

 The Top-level Research Initiative's Annual Conference will take place in Copenhagen in September. This major Nordic initiative on climate, energy, and the environment – the largest-ever venture of its kind - has been up and running for just over a year. We welcome you to get updated on the latest news within the initiative!

[Read more >>](#)

Fighting cancer with whole grain (13.08.2010)

 Whole grain may be more important than both fruit and vegetables in the fight against cancer. This is the theory of researchers at a Nordic Centre of Excellence on food, nutrition and health.

[Read more >>](#)

EuroScience Open Forum 2010: "The Top-level Research Initiative - a wincase" (05.07.2010)

 The Top-level Research Initiative (TRI) is not a showcase but a wincase for international cooperation, stated Jerzy Langer from the Polish Academy of Science.

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Top-level Research Initiative
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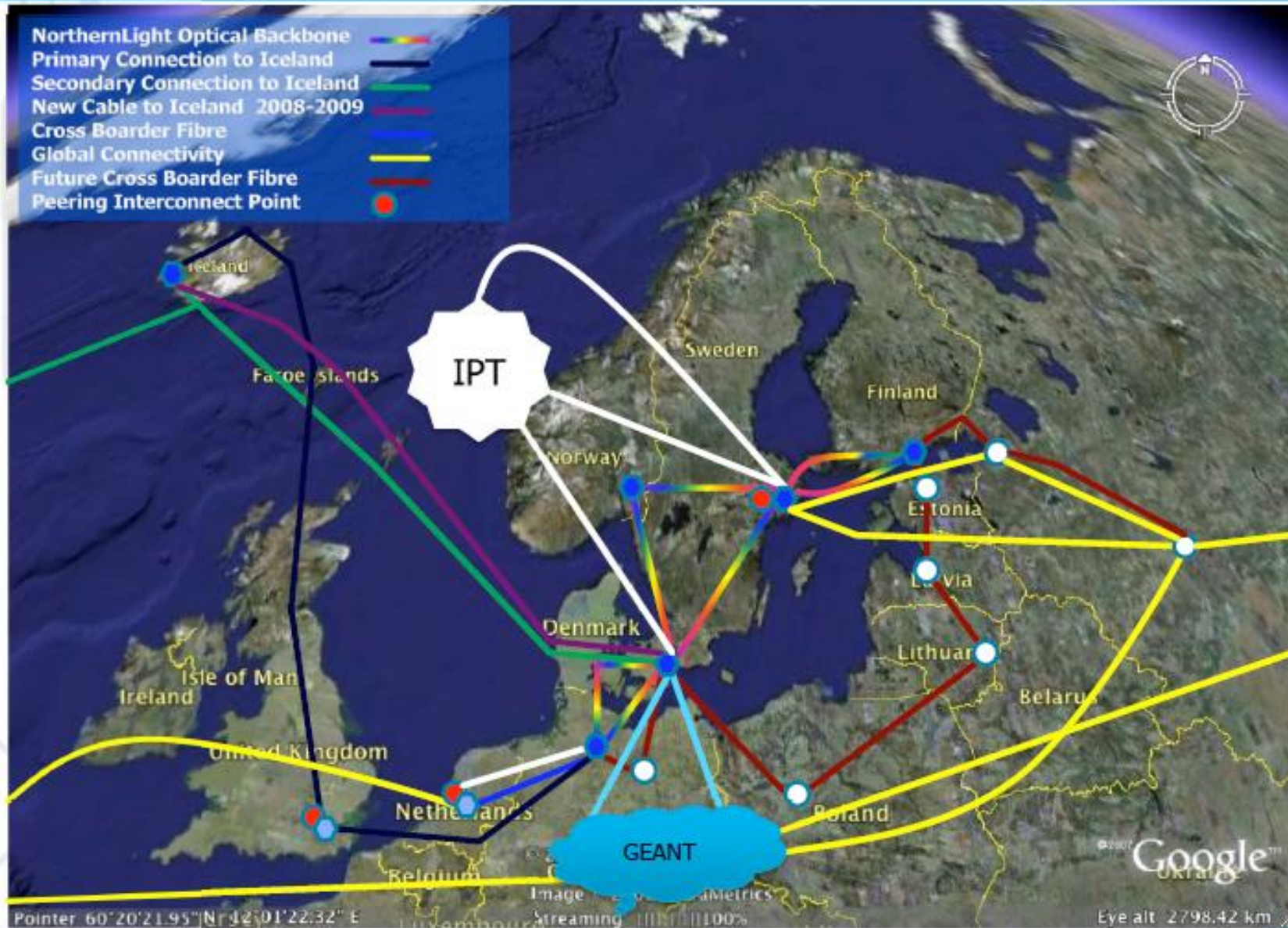
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NORDUnet is a joint collaboration by the five Nordic National Research and Education Networks in Denmark (Forskningsnettet), Iceland (RHnet), Norway (UNINETT), Sweden (SUNET) and Finland (Funet). It operates a world-class Nordic and international network and e-infrastructure service for the Nordic research and educational community.

The five NRENs develop and operate the national research network infrastructures, linking together more than 400 Nordic educational and research institutions with more than 1.200.000 users. NORDUnet and the Nordic NRENS continuously work to develop and offer a range of services that comprise a high capacity e-infrastructure including GRID, Network Operations Center (NOC) and Authentication and Authorization Infrastructure (AAI).

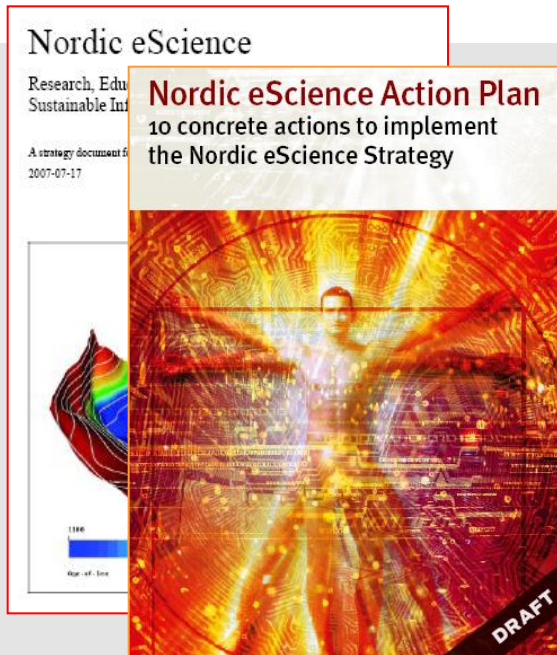


Initiatives and activities

eScience: what and why?

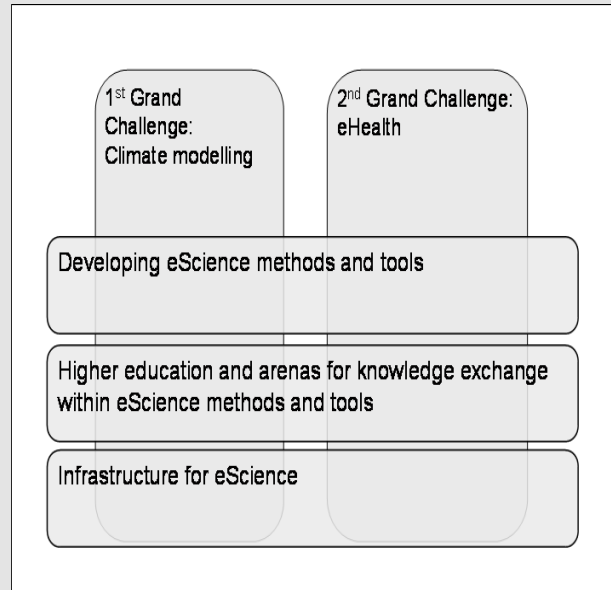
- *eScience is often referred to as the third pillar of the scientific method, that is, theory and experiments are now complemented by computer based simulations, computations, and analyses.*
- *Often, the simulations, computations, and computer based analysis must replace real experiments when such are too **dangerous** (analyzing spread of fire), **impossible** (global climate effects), **too expensive** (full-scale aircraft crash worthiness simulation), **too demanding** (comparing genomes), **too difficult** (testing side-wind effects on moving vehicles), or **unethical** (predict the social effects from political decisions).*

Three steps initiative up to now



Nordic eScience strategy and action plan

2007 - 2009



Proposal for eScience as a globalization initiative

2010 -



A baltic sea knowledge infrastructure for the fifth freedom

2010 ----?

Nordic eScience Action Plan

Nordic eScience Action Plan 10 concrete actions to implement the Nordic eScience Strategy

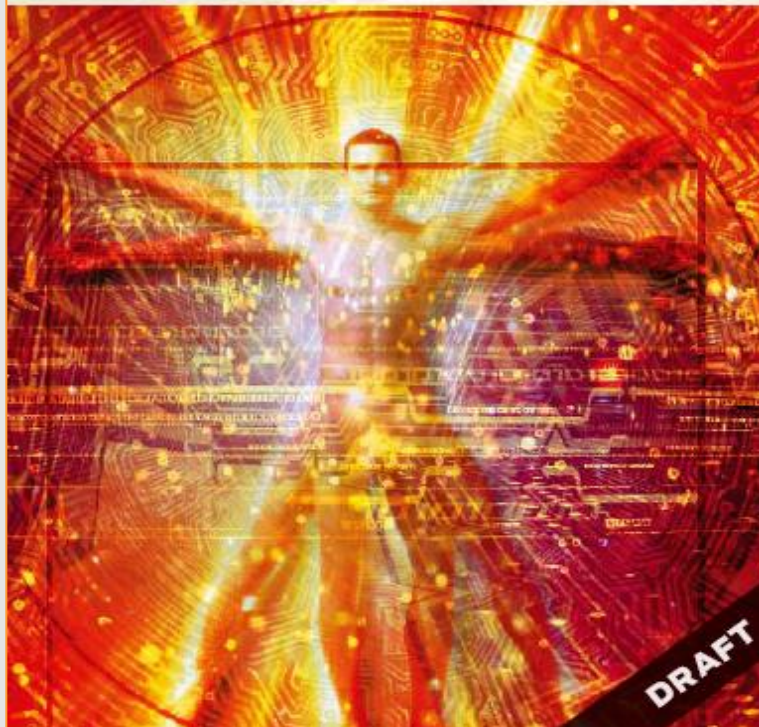
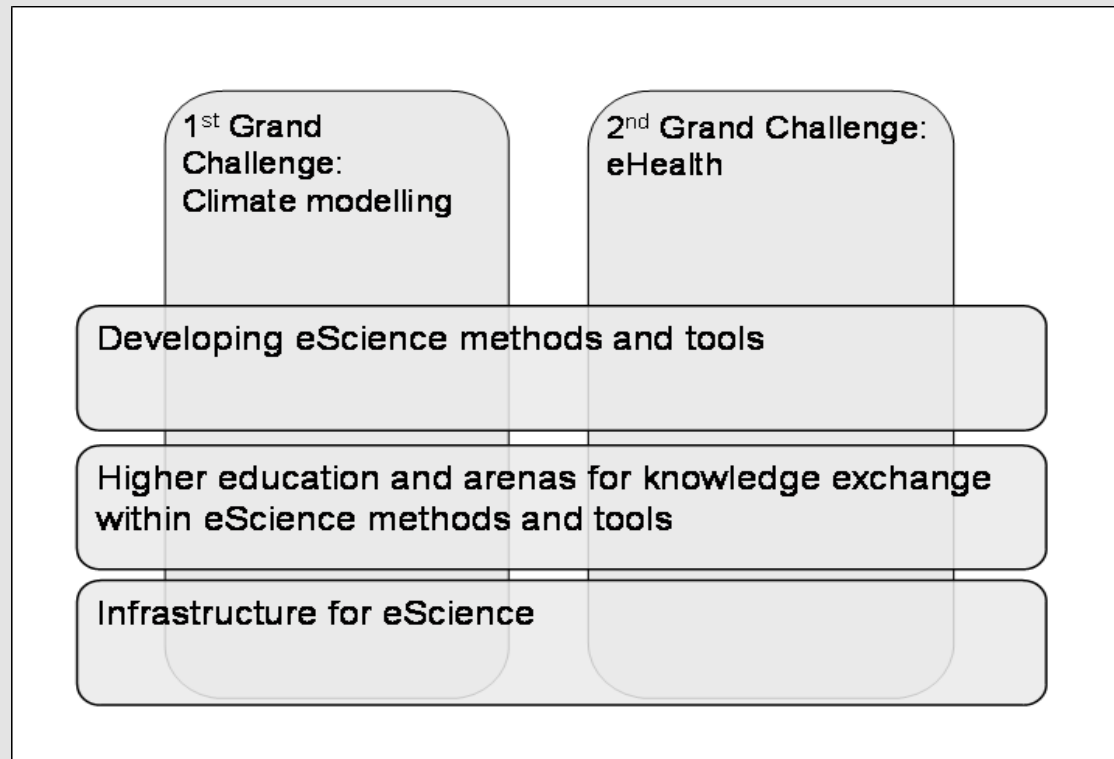


Table of Contents

Foreword	3
Table of contents	4
Introduction	5
Mission and Objectives	6
Organisational framework for Nordic eScience Cooperation	7
Three Action Lines Comprising Ten Concrete eScience Actions	8
Action Line A. Creating a Nordic Higher Education Arena for eScience	8
– Action 1. Training Researchers in eScience Tools and Methods	9
– Action 2. A Nordic eScience Masters Education	9
– Action 3. Sharing and Specialising Nordic eScience Educational Modules	9
– Action 4. Fostering Nordic eScience Collaboration through Mobility	9
Action Line B. National and Nordic eScience Programmes in Pursuit of Grand Challenges	10
– Action 5. A Nordic eScience Programme for Research into Grand Challenges	11
– Action 6. Strengthening National eScience Initiatives	11
Action Line C. Knowledge Creation through Cross-Border Sharing of eScience Infrastructure	12
– Action 7. Open Access to National Data Repositories	13
– Action 8. Facilitating Sustainable Grid Infrastructure Collaboration	13
– Action 9. Implementing Cross-Border Sharing of Resources	13
– Action 10. Environmentally-Friendly Nordic High Performance Computing	13
Endnotes	14
Postscript	15
Executive Summary	16

eScience – the globalization initiative



Knowledge Infrastructure for the Fifth Freedom in the Baltic Sea Area

A feasibility study for the Nordic Council of Ministers



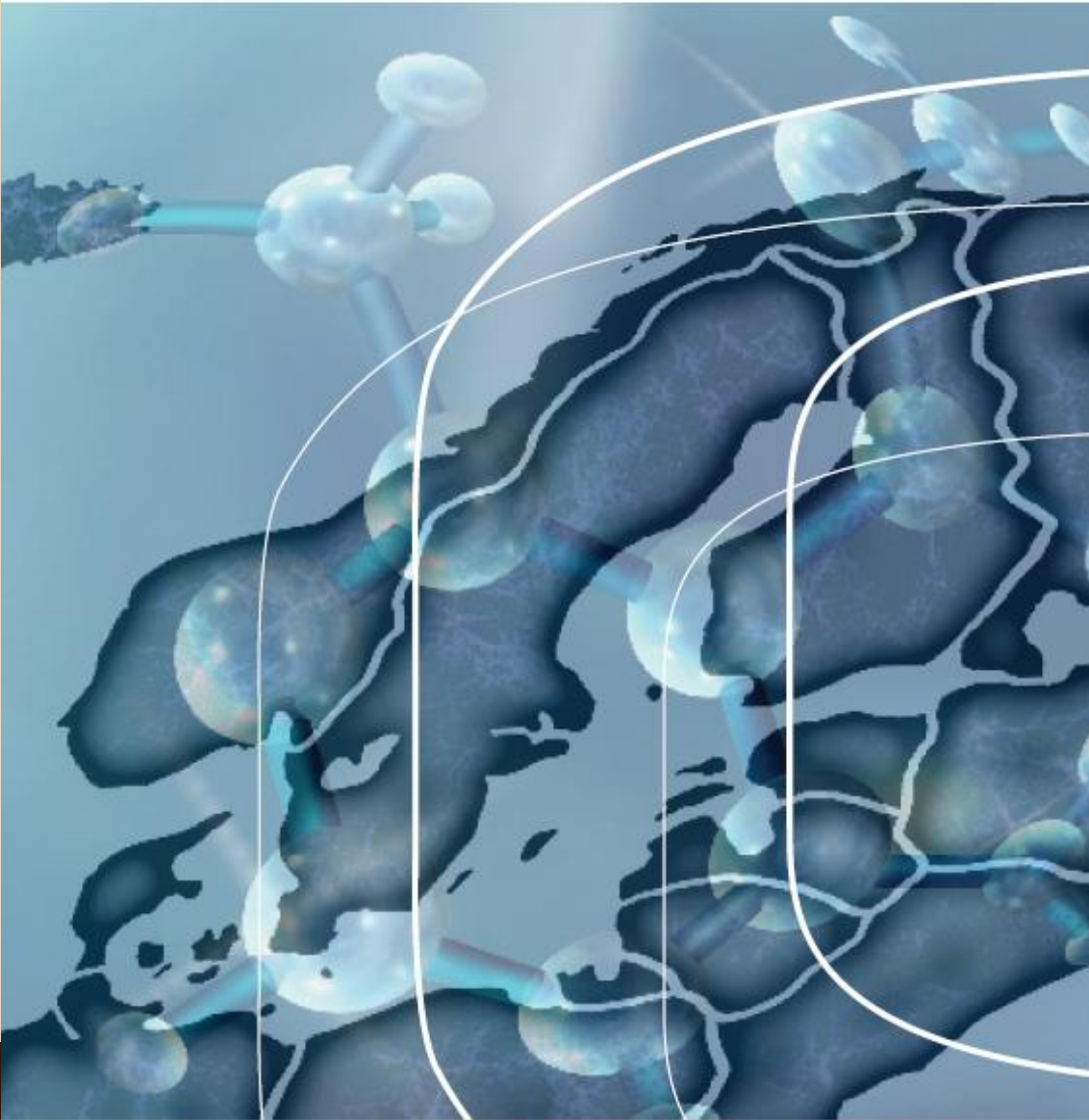
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Nordisk Ministerråd

Knowledge Infrastructure for the Fifth Freedom in the Baltic Sea Area




A feasibility study for the
Nordic Council of
Ministers

Erik Elmroth
(*Scientific Secretary*)



The study proposes

The proposal is to:

- Establish a joint Nordic–Baltic Sea eScience strategy focusing on
 - eScience education and training, 
 - eScience research programs, and
 - cross-border sharing of eScience resources.
- Facilitate the implementation of the strategy by
 - establishing a Baltic Ring of optical networks and 
 - establishing a light weight coordinating body for the implementation of the strategy. 

Thank you for your attention!