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# Enhancing Nordic Research Infrastructure Cooperation

## A Regional perspective of Research Infrastructures and their role in ERA

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***Research Infrastructures towards 2020  
EuroRisNet+ Workshop  
5 July 2013***

# The Nordic countries



## Five countries:

Denmark, Finland, Iceland, Norway and Sweden

## Three autonomous areas:

Faroe Islands, Greenland and Åland

- 8 time zones
- 26 million people
- Many official languages
- The worlds 10th largest economy
- Extensive collaboration through the **Nordic Council** (parliamentarians) since 1952 and the **Nordic Council of Ministers** since 1971



Galdhøpiggen  
2469

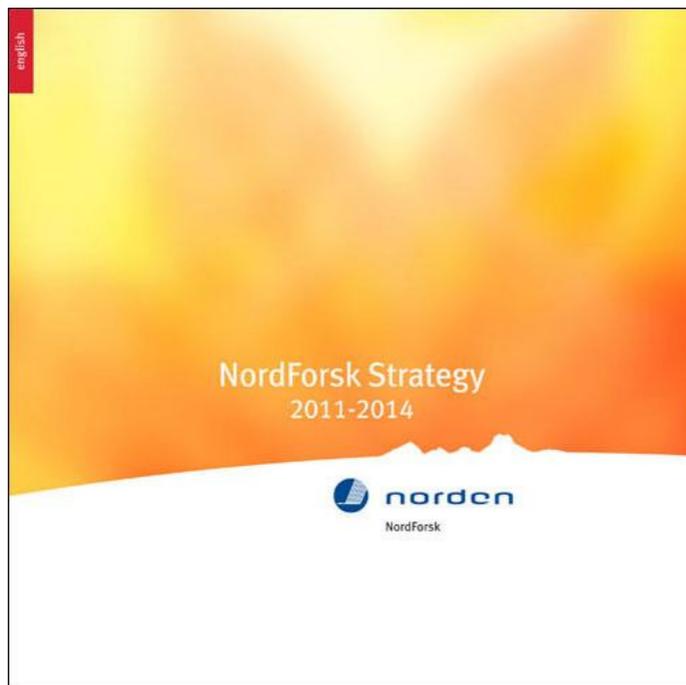
Kebnekaise  
2102

Hvannadalshnjúkur  
2110

Gunnbjørn Fjeld  
3700

Halti  
1328

- **Platform** for joint Nordic research and research policy development in the Nordic countries
- Established by the Nordic Council of Ministers in 2005
- Aim is to **facilitate** cooperation in all fields of research when this **adds value** to work being conducted nationally
- Main stakeholders are the national research financing bodies in the five Nordic Countries
- **Basic funding** from the Nordic Council of Ministers and **additional funding** by stakeholders, especially the Research Councils in the different countries



## **NordForsk's main collaboration areas:**

- Research funding
- Research infrastructures
- Nordic-European cooperation
- Analysis and policy
- Communication

# Partnership to realize the ERA by 2014



NordForsk signed an MoU with the Commission in 2012:

- Support an **open labour market** for researchers in Europe, by open recruitment, researchers mobility, and academia-industry mobility
- Facilitate and support access to national and Nordic **research infrastructures** of pan-European relevance
- Support **cross-border research cooperation**
- Promote optimal circulation and transfer of scientific knowledge – **open access** and **eScience**
- Foster **gender equality** in research



# Why Nordic research infrastructure cooperation?



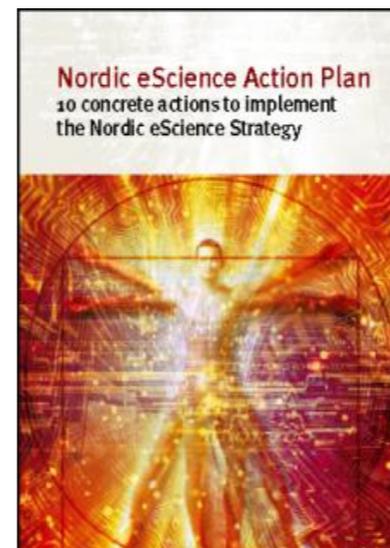
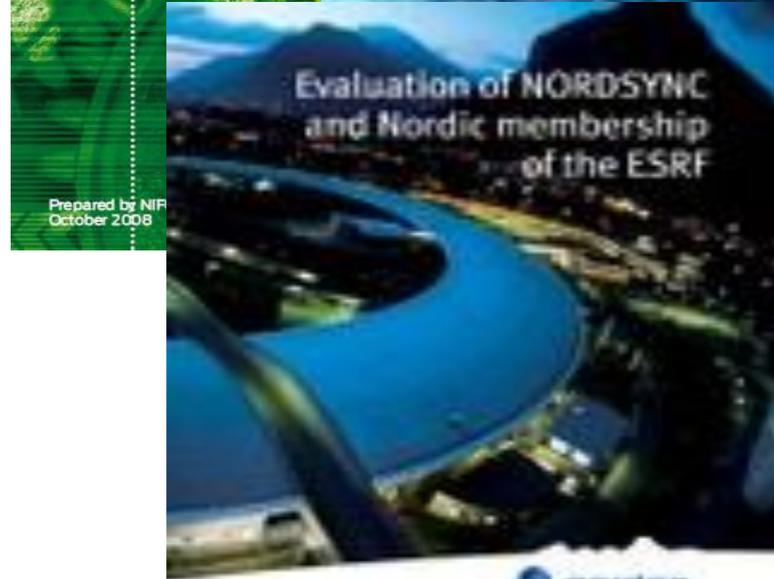
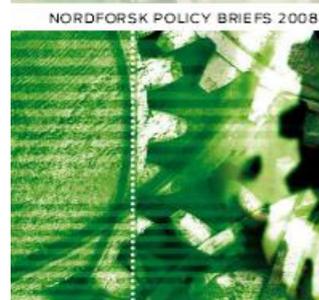
- Excellent research infrastructures are a prerequisite for conducting competitive research of high international quality in dynamic environments
- Research infrastructure is a topic of mutual interest for all the Nordic countries and an area where Nordic cooperation can make a contribution
  - Pooling of national resources
  - Reduced fragmentation
  - Creating critical mass
- NordForsk's activities aim to strengthen Nordic cooperation on research infrastructure policies, strategies and funding
  - Joint Nordic actions
  - Flexible funding schemes
  - Allowing variations of common pots and variable geometry

# Policy Papers guide Nordic Actions



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- RI activities are based on thorough analysis
- Recommendations on how to strengthen Nordic cooperation on RI
- Advise from newly appointed High-level Advisory Group on RI



# NORIA-net Nordic Research Infrastructure Network (NRIN)

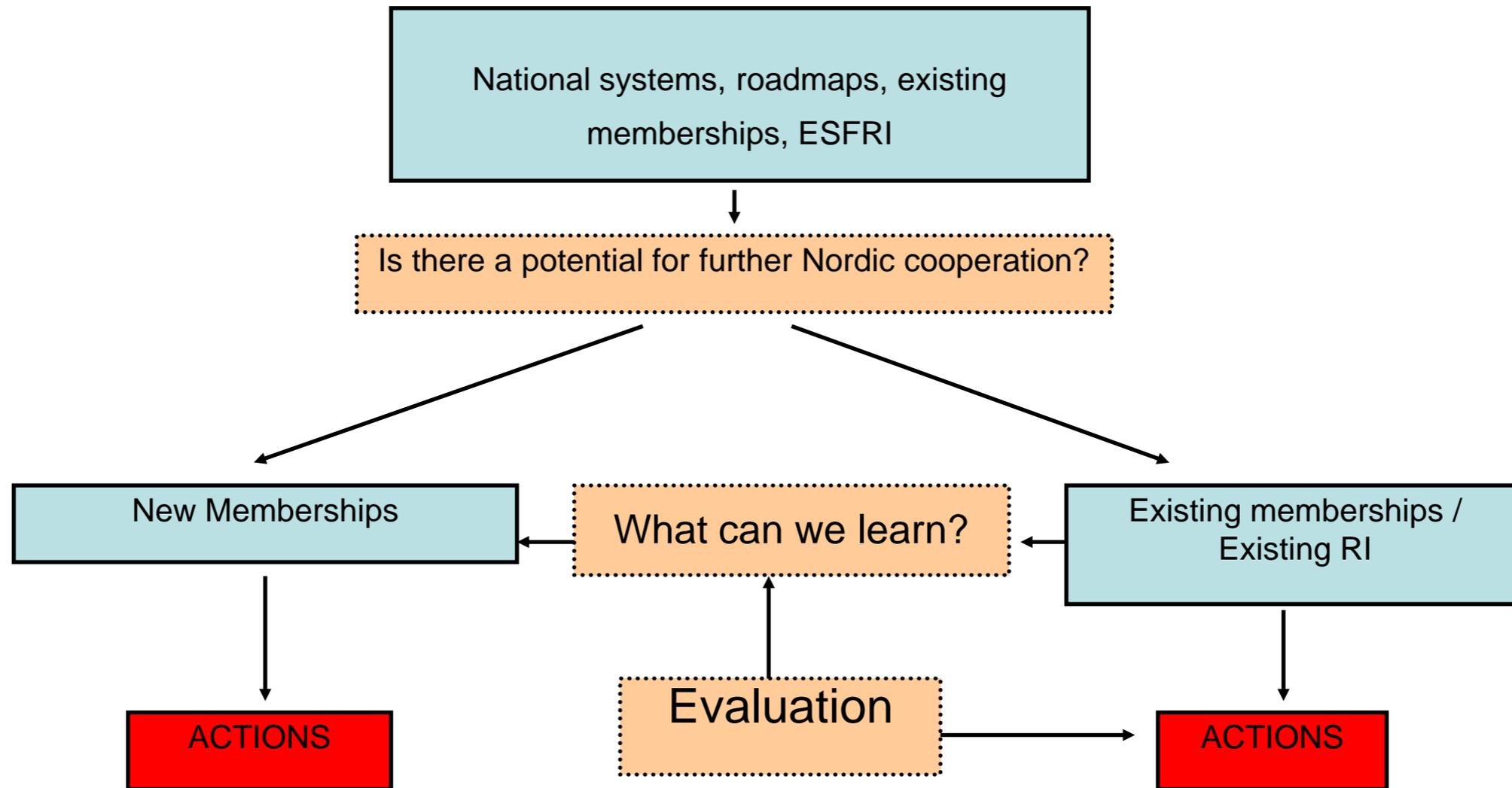


- NordForsk-funded working group with representatives from Nordic research councils/ministries



- Mapped existing national RI policies, funding, and international involvements
- Reviewed ESFRI roadmap projects, to identify potentials for Nordic collaboration
- Evaluated an international membership – Comparative view

# Mapping by NRIN



# Identifying areas suitable for Nordic RI cooperation



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- In order to identify common Nordic priorities it is essential to have a good understanding of each country's roadmap
- National roadmaps are however not directly compatible!
- A national RI roadmap basically consists of a combination of two aims:
  - a) To motivate funding
  - b) To prioritise investments (where funding is already secured)
- The individual Nordic roadmaps reflect differences in the balance between these two aims including differences in RI policy (organisational issues, funding levels and mechanisms, legal issues and overall research funding system)
- Differences in vision, strategy, and prioritisation between the five Nordic countries sometimes make it difficult to prioritise at the Nordic level
- Nordic initiatives should underpin implementation – NordForsk could play an important and constructive role to create real added value for the Nordic countries!

## Questions to be considered:

- National competition for RI or national cooperation?
- Who prioritises the RI investments? (Researchers, institutions, policy makers, international advisory groups)
- Who decides on national and international engagements in RI?
- National level investment vs institutional investments in RI
- How to ensure access to RI to relevant user communities?
- Where to locate the RI?
- How to agree on running costs?
- Who is responsible for follow-up investments in research activities using the RI?

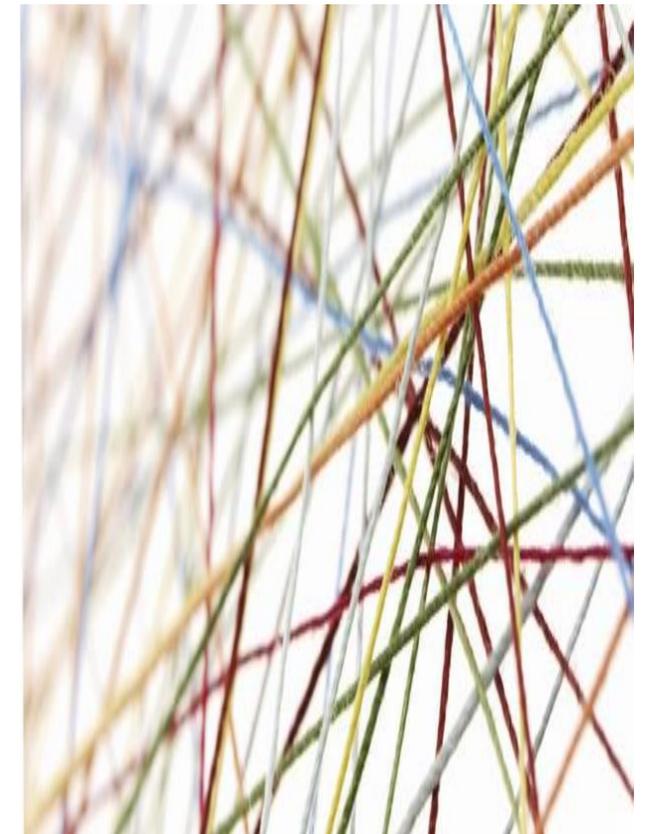
- Nordic collaboration must add value to the project nationally, be feasible and desirable
- Enhance coordination and knowledge exchange
- Actions to facilitate Nordic cooperation could target
  - ESFRI projects
  - Distributed projects (e-infrastructure, governance, implementation, registries and data sharing and legislation (health))
  - Regional dimension
  - Evaluation of memberships in international RI
  - Training and mobility linked to RI
  - Foresight studies and policies

## NordForsk's three goals within research infrastructure (RI) cooperation:

I) to increase the **use** of existing research infrastructure

II) to facilitate the **establishment** of cross-border infrastructures

III) to facilitate **joint Nordic actions** towards the international research infrastructure arena



NordForsk increases the **use** of existing national, Nordic, and international research infrastructures by:

- Funding research infrastructure cooperation through joint Nordic research programmes

*e.g. the Nordic eScience Globalisation Initiative, Nordic Centres of Excellence*

- Promoting Nordic awareness of existing and future research infrastructure initiatives through conferences and workshops

*e.g. several conferences with focus on eInfrastructure and RI gathering key stakeholders*

NordForsk facilitates the **establishment** of cross-border research infrastructures by:

- Facilitating processes aimed at harmonisation of national infrastructures, *e.g.* overcoming distinct barriers and obstacles of ethical, legal, technical, or other nature

*e.g. "NORIA-net Registries", an incentive to increase Nordic registry-based research*

- Initiating and coordinating funding to facilitate the establishment of research infrastructures

*e.g. Joint Nordic Initiative on Health and Welfare, Nordic e-Infrastructure Collaboration (NeIC)*

NordForsk facilitates a **joint Nordic actions** towards the international research infrastructure arena by:

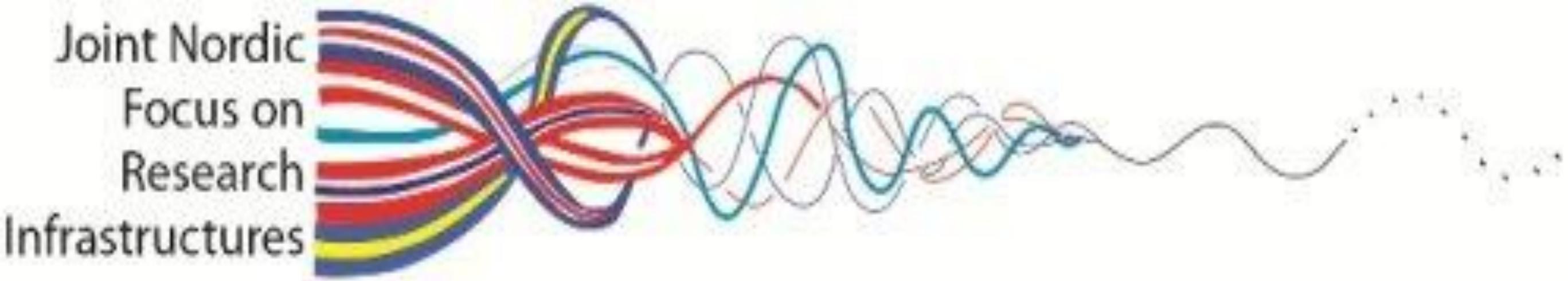
- Responding to upcoming opportunities at the EU or international level, including facilitating processes aimed at identification and articulation of Nordic standpoints
- Identifying Nordic added value and joint actions in relation to e.g. ESFRI

*e.g. Nordic Biobank Initiative, Nordic Lifewatch network, ELIXIR Nordic, Evaluation of Nordic memberships in international research infrastructures*



- *exchange of experiences*
- *best practise /harmonisation*
- *coordinated actions*





## **Nordic conference on RI cooperation, Stockholm 27-28 November 2013**

- Focus on Nordic RI Cooperation: how to facilitate and improve the modes of collaboration around RI including joint efforts
- Themes: Materials & Molecules, Climate & Environment, Health & Welfare, Education/Training, e-science/e-infrastructure
- Aimed at both research leaders and policy makers
- Conference will be a stepping stone for future RI cooperation, aims to produced joint statements on how to move forward

*A co-arrangement between The Nordic Council of Ministers, the Swedish Ministry of Education and Research, NordForsk and the Swedish Research Council*

# Nordic e-Infrastructure Collaboration (NeIC)



- New organisational form for e-Infrastructure collaboration, hosted by NordForsk from 2012
- Aims to facilitate the development of high-quality e-Infrastructure solutions in areas of joint Nordic interest
- Governed by the national Nordic agencies and national computing initiatives
- Builds on the Nordic DataGrid Facility (NDGF) projects, funded by DK, FI, IS, NO, SE since 2003
- In May 2013, the Nordic countries signed a Memorandum of Understanding which will ensure funding to NeIC for the coming 10-year period.



# Nordic e-Infrastructure Collaboration (NeIC)



- Each Nordic country in itself is too small to take part in the highly specialised e-Infrastructures, but together we can take full advantage of our resources
- NeIC has been created as a framework ensuring that resources and capacity can be directed directly to the benefit of our researchers
- NeIC missions:
  - Support new collaboration areas
  - Strengthen collaboration on e-Infrastructures, all levels
  - Increase visibility of e-Infrastructure collaboration
  - A sustainable Nordic e-Infrastructure ecosystem
  - Elicit new collaboration opportunities

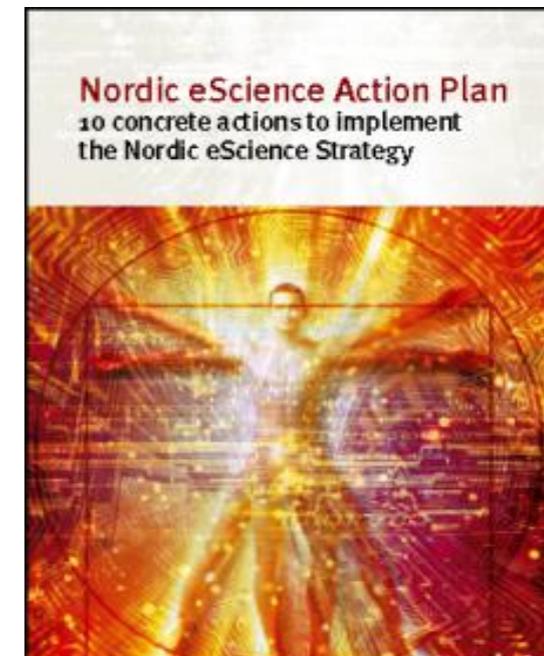
More information on NeIC may be found here: [neic.nordforsk.org](http://neic.nordforsk.org)

# Lessons learnt from Nordic RI cooperation



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- Research infrastructures is an area of national priority that has been strengthened through Nordic cooperation
- Nordic cooperation has generated common research policy (Nordic eScience Action Plan)
- Joint Nordic research programmes and calls for proposals based on national prioritisations (Nordic eScience Globalisation Initiative)
- Nordic initiatives to identify and overcome barriers impeding cross-border Nordic cooperation in several areas proven successful (NORIA-nets)



*Nordic eScience  
Action Plan  
(to be updated 2013)*

# Trust – a key precondition to move from policy to action



- The Nordic region has come a long way in research cooperation in a variety of fields.
- A common cultural community and a high level of mutual trust seems essential to pool resources through joint research initiatives.
- The Nordic funding model, based on voluntary participation, facilitates trust, by allowing each country to take part in joint research activities that add value to their national initiatives.
- Value of NordForsk as a platform for collaboration - underpins implementation of national roadmaps, foresight studies, training and mobility activities.



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# Thank you for your attention!

<http://www.nordforsk.org/>

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