

# The new Strategy

NORDUnet Conference 2009

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# NORDUnet

Nordic Infrastructure for Research & Education



## Key strategy drivers

- Globalization and International Competition

To push the scientific borders further Global Collaboration is necessary and to pool global resources and knowledge fx. CERN, eVLBI GLEON, GENI, CINEGRID etc. This raises the competition between international scientists and institutions.

- Cross Boarder Collaboration - Federated Networking

To be a recognized as participant in Global Research Projects it requires that national and regional institutions collaborate and pool resources. The Nordic NREN experience is that a coordinating and facilitating interregional coordination body add significant value to the national efforts as a common level play ground.

- Network Paradigm shift

In addition to the general usage of the network the requirements for specialized high capacity E2E connections are rapidly increasing. This requires a new approach to inter network and inter organizational provisioning and coordination.

- Dependencies of various disciplines

In addition to the paradigm shift in networking the interdependencies between multiple disciplines like Networking, Storage, GRID, AAI etc. raises the international and inter regional coordination challenges to a new complexity level.

- Long Strategy Process
  - Started in 2007
  - Numerous iterations
  - Many intense meeting & discussions
  - Valid for 2009-2012
  - Will be continuously discussed (and revised if necessary)
- Evolved in discussion with and on input from:

Steen Pedersen (Denmark)

René Buch (NORDUnet)

Janne Kanner (Finland)

Jørgen Qvist (NORDUnet)

Sæþór L. Jónsson (Iceland)

Lars Fischer (NORDUnet)

Petter Kongshaug (Norway)

Håvard Eidnes (NORDUnet)

Hans Wallberg (Sweden)

Jerry Sobieski (NORDUnet)

Sven Tafvelin (Sweden)

... and inspired by many other unnamed contributors



## ***"NORDIC Infrastructure for Research and Education"***

- NORDUnet shall provide a common world-class network infrastructure, services, support and collaboration platform for the Nordic NRENs and research and education community.
- NORDUnet shall likewise facilitate other common eInfrastructure as requested by the Nordic national eInfrastructure stakeholders.

## *The NORDUnet mission builds on the following five pillars:*

### **1) Connectivity**

NORDUnet shall build and operate a world-class network infrastructure for the Nordic research and educational community.

NORDUnet shall achieve this through shared infrastructure or bilateral collaboration where it makes strategic, operational and financial sense.

### **2) Coordination of network research and development**

NORDUnet shall actively monitor network research activities and development projects coordinating and facilitating Nordic involvement and participation.

NORDUnet shall actively facilitate best practice and lead knowledge sharing within the Nordic NREN community.

### **3) Network & eInfrastructure Services**

NORDUnet shall build and operate network and other eInfrastructure services in response to the individual needs of Nordic NREN's taking advantage of operational synergies.

### **4) International Representation**

NORDUnet shall, on behalf of the Nordic NREN's, act as the Nordic representative towards GÉANT and DANTE bodies.

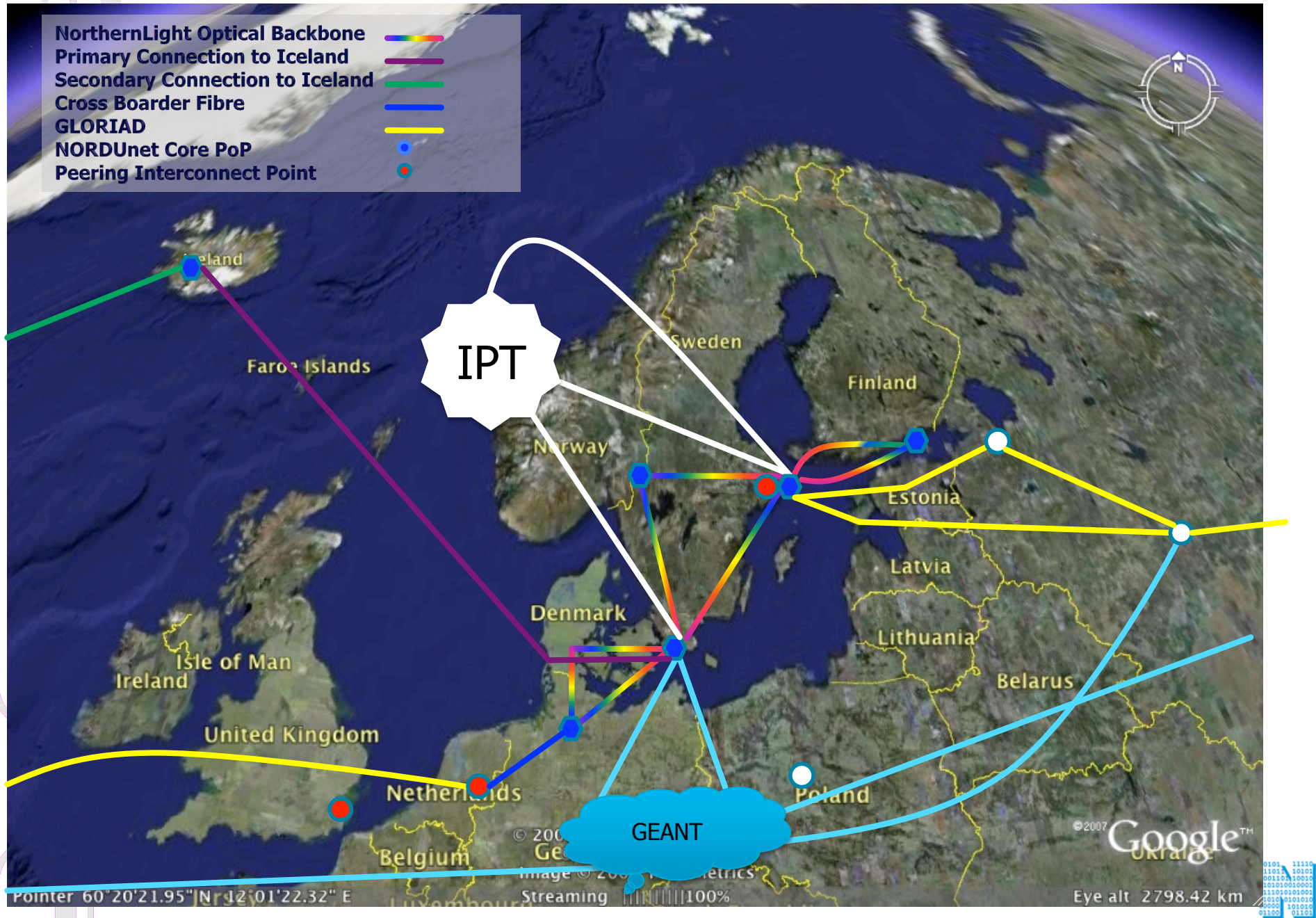
NORDUnet may act as the Nordic representative or as a coordinator of important issues and proxies towards other international bodies as applicable.

### **5) Operational Paradigm**

NORDUnet shall operate according to best practices within corporate governance, corporate culture and pursue the best possible utilization of all NORDUnet resources.

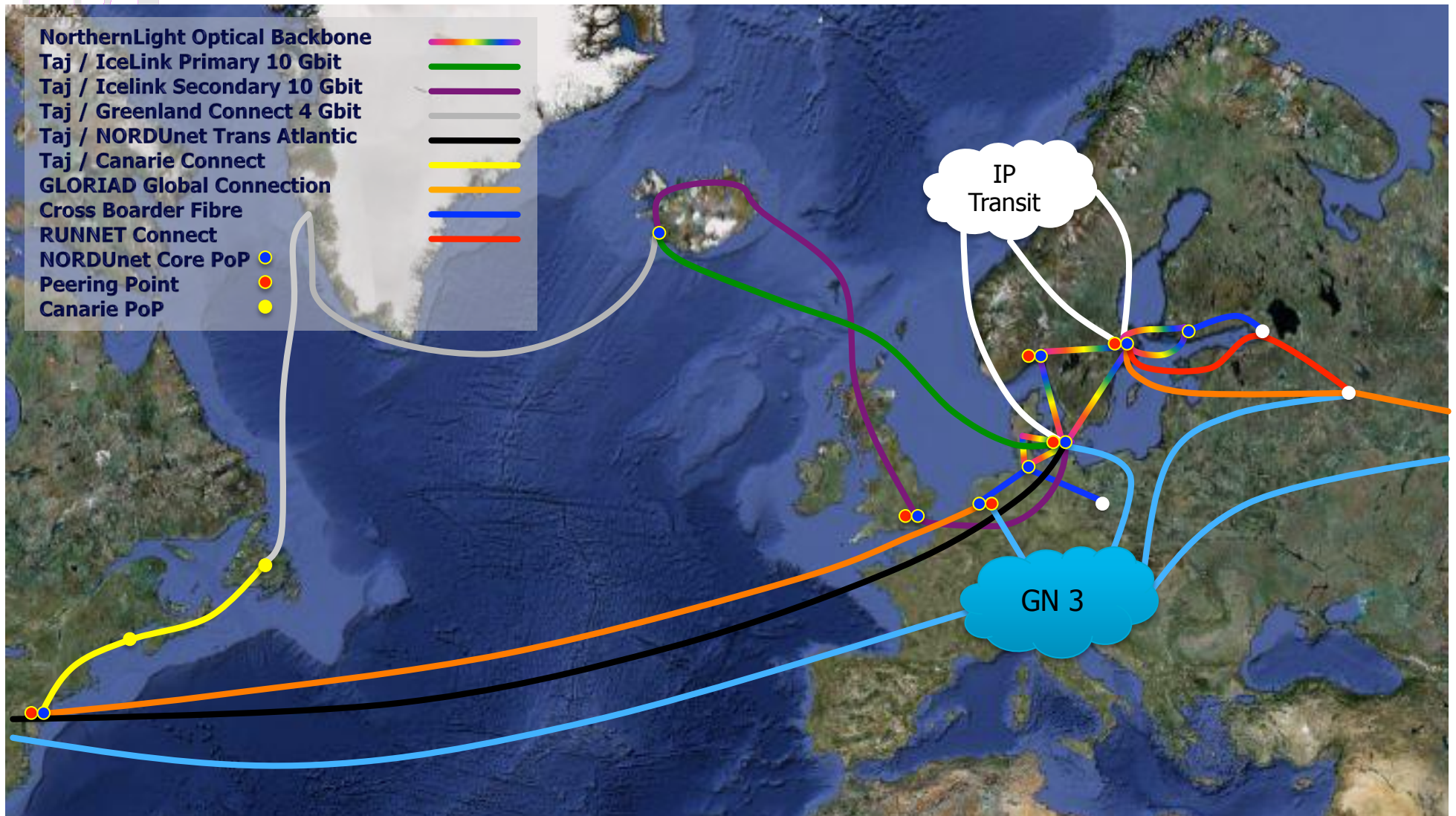
NORDUnet shall facilitate both common and individual services as long as they are financially neutral to other NORDUnet activities.





- Core Nordic Backbone
  - 40 Gbit Opto and WSS Upgrade
  - 40 Gbit IP upgrade to T1600
- Taj / Icelink Project
  - Dual 10 Gbit to Iceland
  - 4 Gbit to Greenland / Canada
- Trans Atlantic Connectivity to NYC
- New IX Connectivity
  - London
  - New York
- Cross Border Fibre:
  - Russian
  - Poland







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- Nordic Workshops:
  - DCN Management Workshop
  - DCN Technical Workshop
  - Introduction to T-MPLS and MPLS-TP
  - Planned:
    - Global Gigabit User Projects
    - The GENI Project
    - Cinema Quality (4K) Streaming Projects
    - Global NREN IPTV Projects
    - Basic DWDW Systems Operation
- Nordic Operational Forum
- Nordic CTO Forum
- The NORDUnet Conference
- Nordic GN3 Coordination

- NORDIC commitment to GN3
  - 45 MY over 4 years (8,5 MY in GN2) -> 11 fulltime staff
    - WAYF + UNI-C: 6,1 MY
    - SUNET 4,0 MY
    - CSC 3,9 MY
    - UNINETT 16,3 MY
    - NORDUnet 15,6 MY
  - 3<sup>rd</sup> largest GN3 partner (after DANTE and PSNC)
  - Nordic participation Areas:
    - Campus Best Practice
    - AAI – identity federations & roaming (JRA3, SA3)
    - Network architecture, core network (SA1T1, JRA1)
    - Hybrid Networking, Network provisioning (JRA2, SA2)
    - Network Monitoring & Measurement (SA2, JRA2)
    - Environmental impact
    - Security

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- Project Hosting
  - NDGF
  - Nordunet3
- NOC Services
- Equipment Hosting & Operation
- Applications Hosting & Operation
- Nordic Meeting Facilities:
  - Meetings Rooms:
    - Kastrup (750m from Airport):
      - 35, 12 and 6 persons.
      - 2 Guest Offices
    - Stockholm - Central
      - 10 persons
      - Guest workplaces available
    - All Video and Audio Conferencing Enabled
  - Fully VCONF enabled with Terminal, MCU & Desktop AV access.

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- Geant 3 Project
    - NREN PC
    - GN3 AC/WG
    - Activity Leader JRA1
    - Task Leaders (Multiple)
  - Dante BoD
  - GLORIAD Co-PI on Taj/IceLink
  - MANTICORE
  - FEDERICA FP7 project
  - DICE
  - GLIF
  - OGF
  - CANS
  - LHC OPN
  - RIPE
  - AMSIX, LINX, NIX ....
  - Kantara
  - TM forum
  - APAN
  - Internet2
  - LDAP Directorate
- In addition participation in
- Terena WG
  - IETF
  - IRTF
  - .....



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[http://www.nordu.net/ndnweb/the\\_nordunet\\_strategy.html](http://www.nordu.net/ndnweb/the_nordunet_strategy.html)



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