

The Baltic Ring

Jørgen Qvist
eScience Conference
Helsinki, 29th-30th September 2011



- **NORDUnet**
 - NORDUnet network
 - eInfrastructure to support eScience
- **Baltic Ring**
 - The Fifth freedom
 - Baltic Ring project
 - BRAIN

NORDUnet

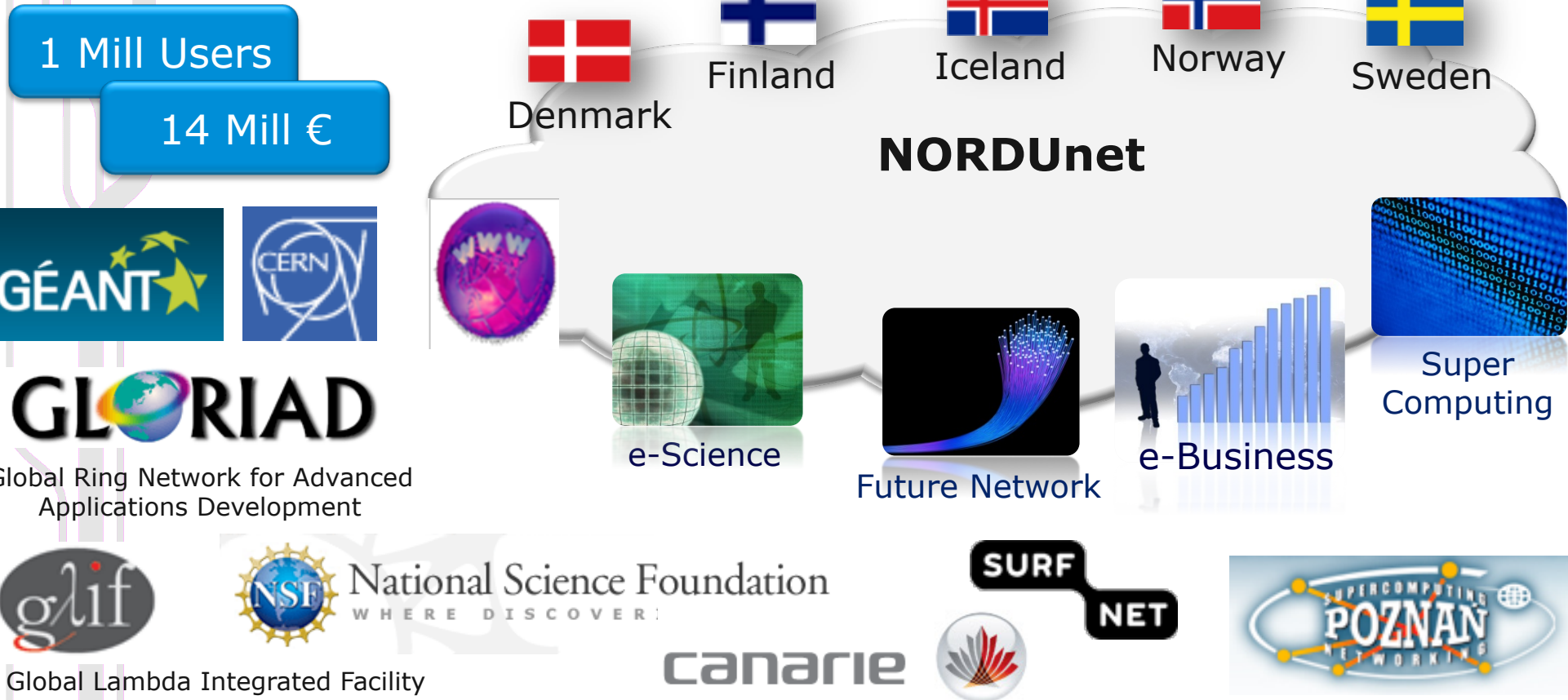


Is the Nordic Infrastructure for Research and Education providing the Nordic backbone to the Global Infrastructure for Research and Education.

NORDUnet is the result of the NORDUNET program (1986 to 1992) financed by the Nordic Council of Ministers.

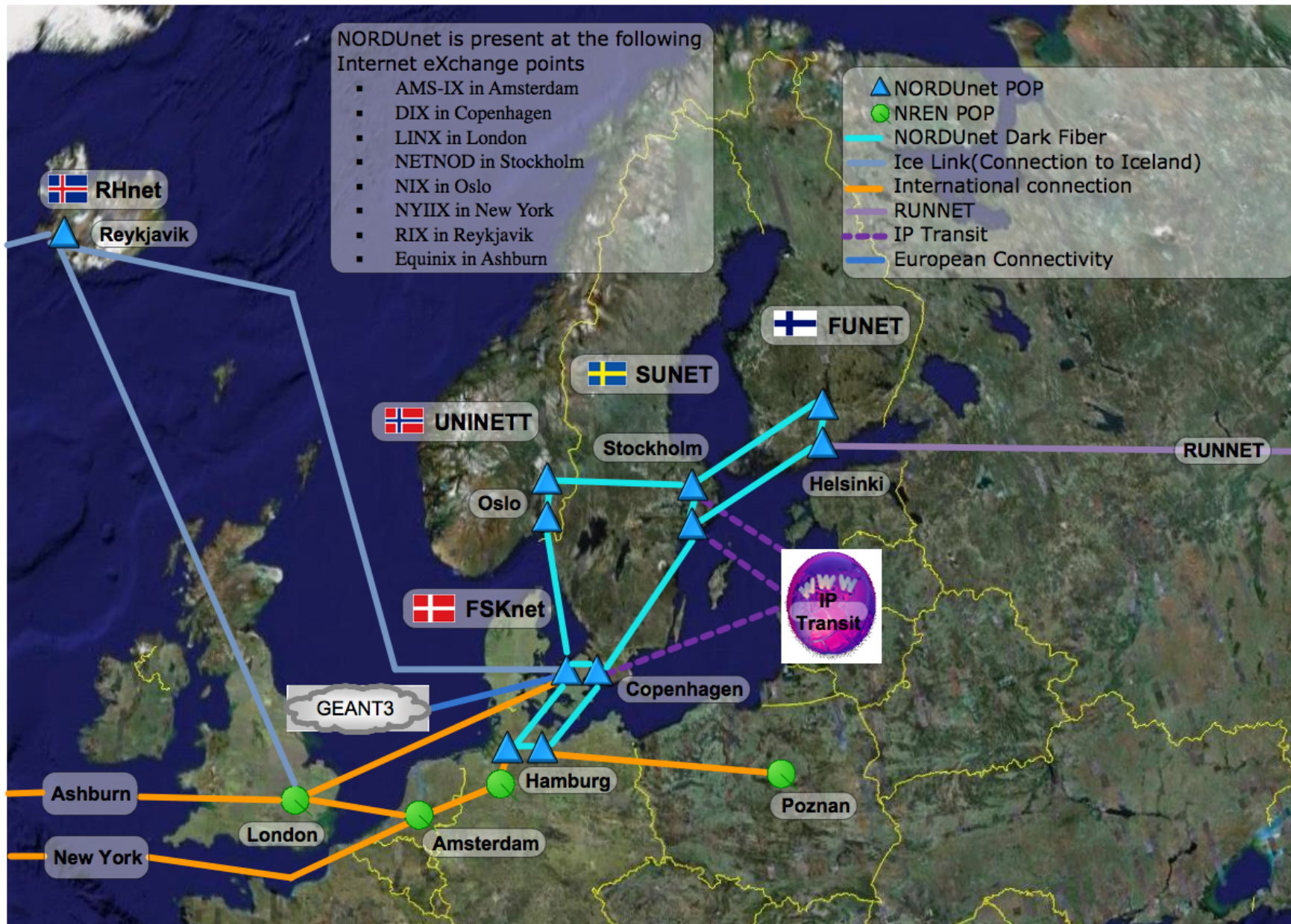


Danish limited company owned by the governments or government institutions in Scandinavian.

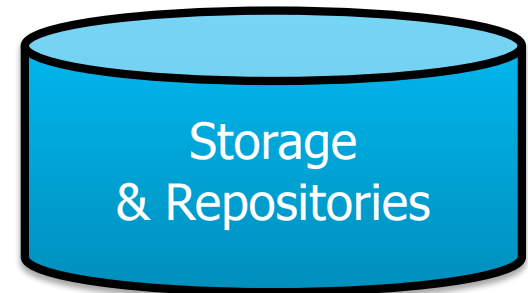
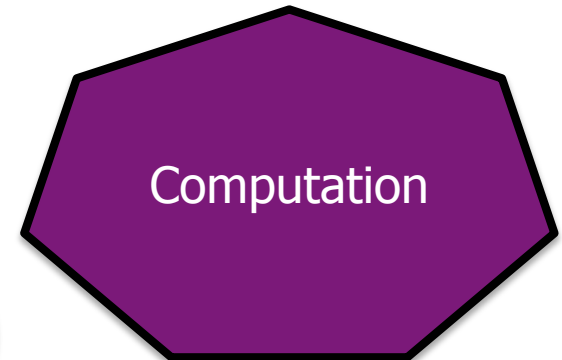
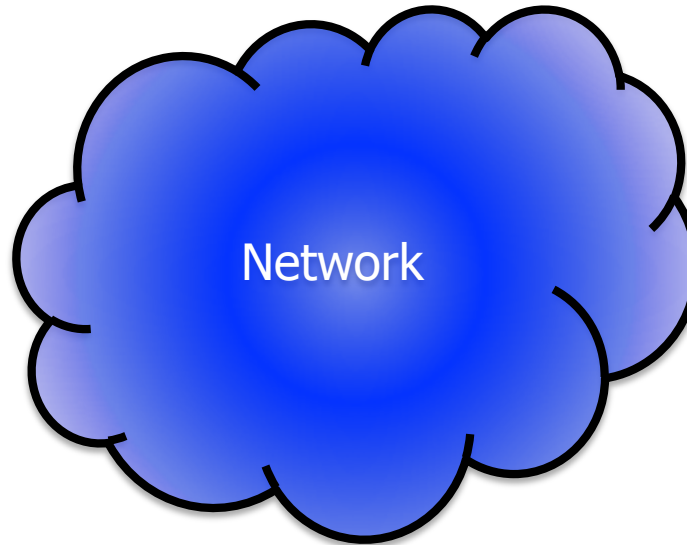
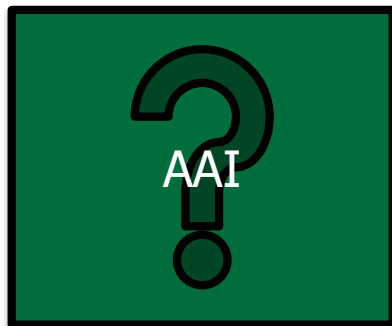


NORDUnet

Nordic infrastructure for Research & Education



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The Baltic Ring

The 5th Freedom



- Fifth freedom – the free movement of knowledge
- A proposed addition to the Four Freedoms in European Union Law
 - Free movement of goods, capital, services and people

- Knowledge Infrastructure for the Fifth freedom in the Baltic Sea Area



- feasibility study funded by the Nordic Council of Ministers
- Date of publication Feb 18th, 2010

<http://www.norden.org/en/publications/publications/2010-516>

6. Strategy proposal

...



The initial actions:

1. Establish a fiber ring network through the countries around the Baltic Sea
2. ..
3. ...

- The interconnection between the e-Science communities in the region
- Strenghtens the collaboration
- Strenghtens the role of the region in the European collaboration

Feasibility study



2009-2010

Definition

Design

Baltic Ring Project
2010-2011

Implementation

TBD
2011-?

Deployment

TBD
2012-?



The Baltic Ring Project

Lars Fischer

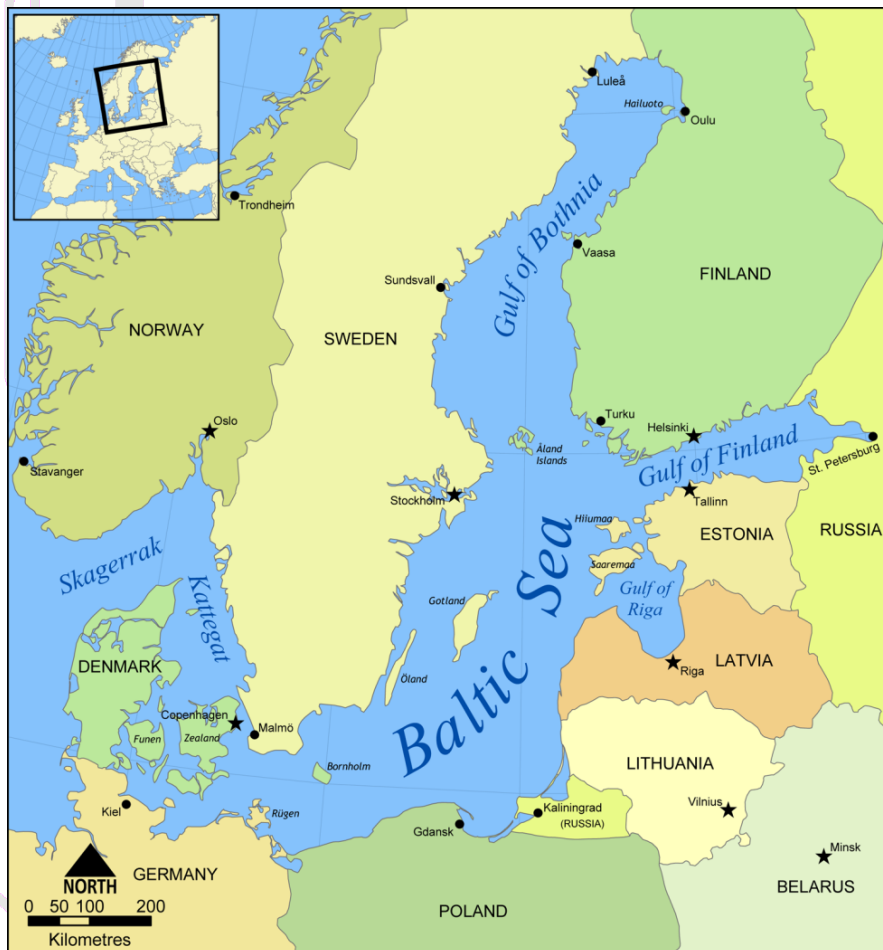
Project responsible, CTO, NORDUnet

Jari Miettinen

Project manager, Funet Services, CSC



1. Provide a technical description of a federated Baltic Ring network
2. Provide a decision framework for partners willing to participate and collaborate
3. Provide sufficient information to the liaison organizations



Source: Norman Einstein, May 25th, 2006 (Wikipedia)

- 9 countries – 9 NRENs
- Max length 1600km
- Max width 193km
- Average depth 55m





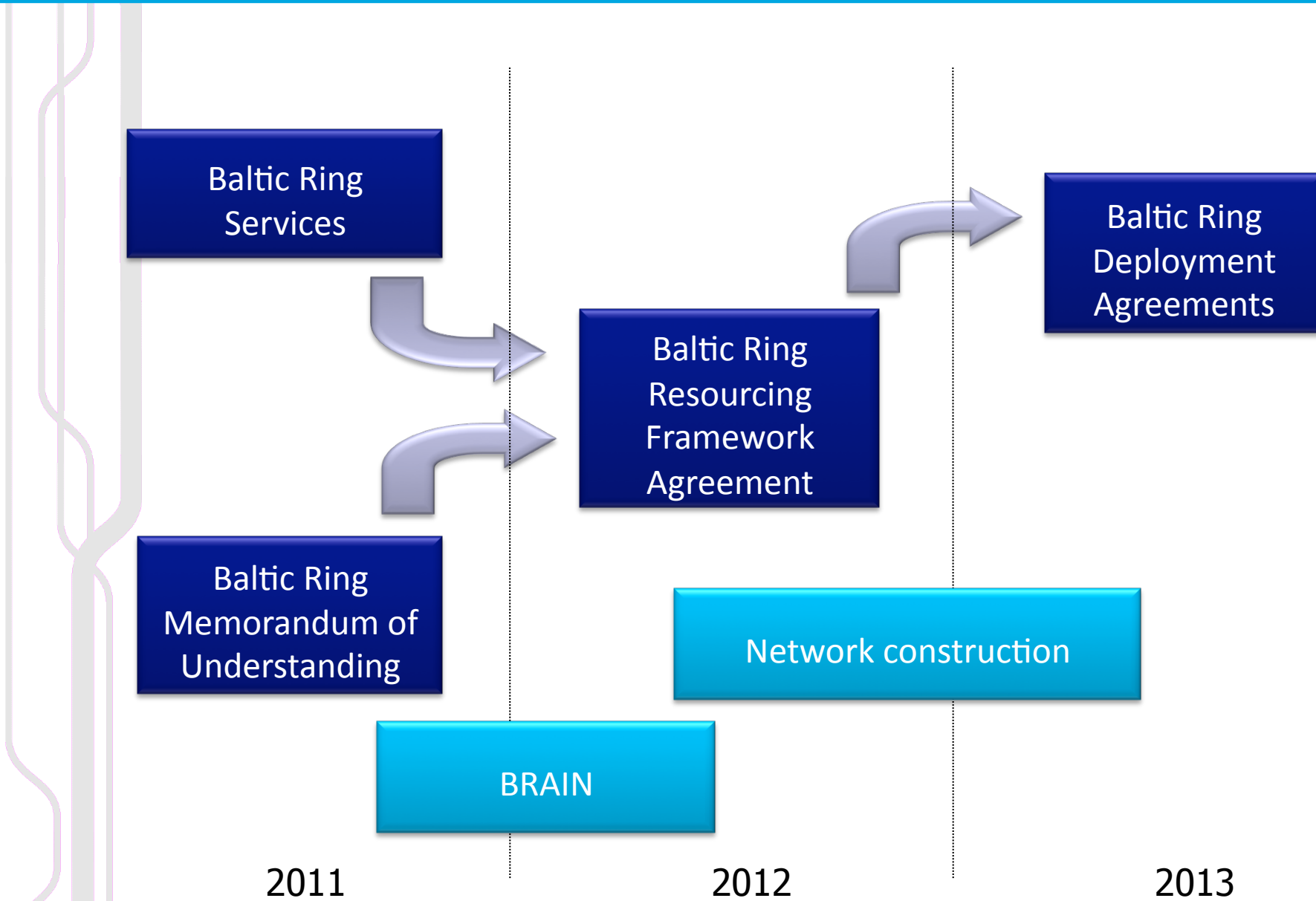
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a new federated network

- complete dark fibre footprint forming a ring
- DWDM infrastructure supporting 40 and 100 GBPS
- Provide at least one, preferably two flexible add-drop Points in each country
- The architectural design should support the possibility of transporting a wavelength without Optical-Electrical-Optical (OEO) regeneration from Helsinki to Hamburg

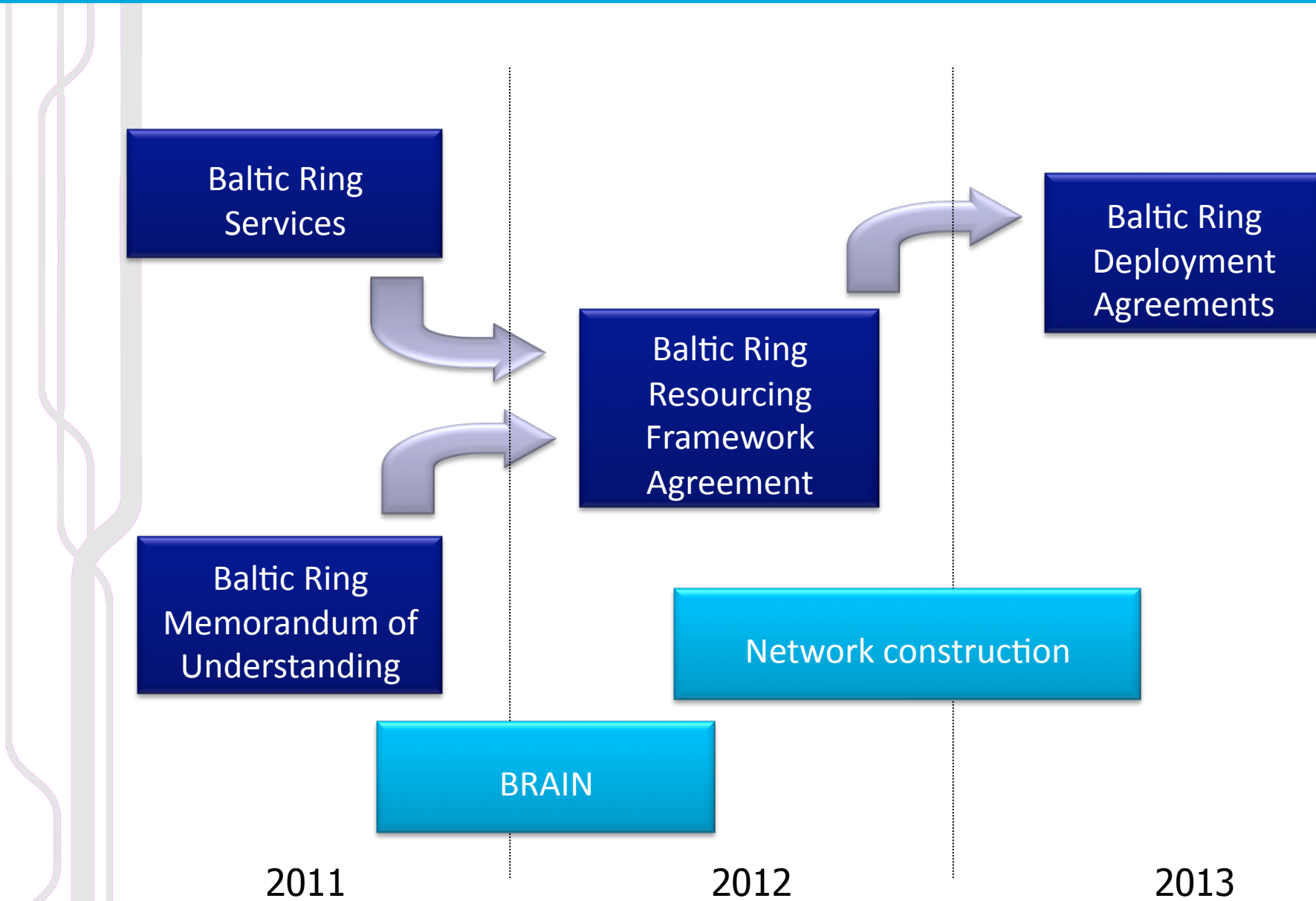


- Consortia
 - Partnership of member states
 - Collaboration of R&E networks in the Baltic Sea countries
- A limited, topical collaboration with a specific objective (delivering a Baltic Ring network)
- ...but, at the same time a platform for further, expanding collaboration on e.g. eScience, eInfrastructure (cloud computing, ...)

- Deploy & Operate Baltic Ring regional infrastructure to:
 - *ensure* equal level of basic connectivity for Baltic Sea countries
 - *provide* high-quality, high-capacity, expandable international connectivity
 - *integrate* at network and service level with the GÉANT collaboration, offering network transport to the GÉANT network
 - *facilitate* Europe – Russia connectivity
 - *facilitate* regional eScience and eInfrastructure collaboration

- *Consortia on behalf of partners*
 - Project planning, Project Finances
 - Pursuing funding opportunities, agreements with funding bodies
 - Vendor relations, tendering
 - Deployment, Operation, Maintenance
- *Partners*
 - National connectivity, connecting to the Baltic Ring, national networks
 - National resources
 - Partner contributions to consortia
 - Funding for national networks and activities

- **BRAIN**
Baltic Regional Academic Infrastructure Network
- The main partners of the project are
 - CSC
 - Eenet
 - Institute of Mathematics and Computer Science, University of Latvia (sigmanet).
- A project application has been sent to the "European Central Baltic INTERREG IV A Programme 2007-2012".





Questions?