

# **Knowledge and Innovation for Growth**

## **Perspectives for Baltic Sea Collaboration**

**Tallinn 3 April 2006**

**Gard Titlestad**

**Head of Departement for Education, Research and Labour Market**

**[gt@norden.org](mailto:gt@norden.org)**

**Nordic Council of Ministers**

# Overview

- Nordic Council of Ministers - NCM
- Shifts and challenges
- Priorities – NCM
- Closer Nordic – Baltic co-operation
  - Areas for co-operation
  - NordPlus
  - Nordunet3
  - NeDAP
  - Investment in Research and Innovation, best practices
- Summing up

## Nordic Council of Ministers

- for governments
- 1971

## Nordic Council

- for parliamentarians
- 1952



- Different ministerial councils for different subjects
- Rotating chairmanship
- Prime Ministers and Ministers for Nordic Corporation
- 30 institutions
- Secretariat based in Copenhagen



Yearly budget of approximately € 120 million.

- Education and science (25%)
- Culture
- Environment
- Health
- Children



Offices in St. Petersburg, Tallinn, Riga and Vilnius.

Information points in Murmansk, Archangelsk and  
Petrozavodsk

# Nordic Council of Ministers – Education and Research

## NCM-Labour Market

NCM Secretariat

Department for education,  
research and labour market

### Comittee of Senior Officials – education and research

## NordForsk

Institutions and  
collaborating bodies

NordVulk  
Nordita  
NIAS  
NSI  
NIS m.fl.

Nordic school  
co-operation  
(NSS)

NordPlus  
programmes

Life long learning  
Adult education  
(SVL)

Higher education  
(HÖGUT)

Norden Language council



# Major knowledge shifts

- National level
  - National efforts increasingly a part of international efforts
- Nordic level
  - Change from internal to external
  - From projects to Northern Research and Innovation Area - NORIA
- European level
  - From programs to ERA
- Global level
  - 70% of industrial research in Hungary and Ireland comes from foreign companies– and in Sweden 40 %
  - In a few years China will bypass EU in research efforts





最新中英文版  
THE NEW CHINESE-ENGLISH EDITION

# 少儿趣味世界地图

THE CHILDREN'S INTERESTING MAP OF THE WORLD



最高的山峰	珠穆朗玛峰	最高的平原	亚马孙平原
最深的海洋	马里亚纳海沟	最长的河流	尼罗河
最大的沙漠	撒哈拉沙漠	最大的城市	东京
最大的岛	格陵兰岛	最大的国家	俄罗斯
最小的国家	梵蒂冈	最小的城市	麦克默多
最大的淡水湖	苏必利尔湖	最大的野生动物保护区	非洲野生动物保护区
最大的野生动物保护区	非洲野生动物保护区	最大的水电站	三峡水电站
最大的水电站	三峡水电站	最大的城市	东京
最大的城市	东京	最大的城市	东京
最大的城市	东京	最大的城市	东京

### 世界七大洲名称对照

亚洲: 东方之雄狮, 世界人口最多, 面积第三大洲。  
欧洲: 西方之巨人, 面积第六大洲, 人口第三多。  
非洲: 世界第二大洲, 人口第二多。  
北美洲: 世界第三大洲, 人口第三多。  
南美洲: 世界第四大洲, 人口第四多。  
大洋洲: 世界第六小洲, 人口第六少。  
南极洲: 世界最南, 无人居住。

### 世界八大奇观

1. 埃及金字塔  
2. 希腊宙斯神庙  
3. 罗马斗兽场  
4. 意大利比萨斜塔  
5. 法国埃菲尔铁塔  
6. 中国万里长城  
7. 秘鲁马丘比丘古城  
8. 美国大峡谷

### 世界十大国家

美国	301,400,000
中国	1,300,000,000
俄罗斯	142,000,000
印度	1,020,000,000
巴西	175,000,000
加拿大	31,000,000
澳大利亚	21,000,000
法国	64,000,000
德国	82,000,000
英国	61,000,000

### 世界人口最多的十个国家

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### 人口最少的十个国家

梵蒂冈	100
圣马力诺	30,000
列支敦士登	35,000
图瓦卢	11,000
瑙鲁	10,000
基里巴斯	110,000
马尔代夫	120,000
所罗门群岛	500,000
安道尔	80,000
圣基茨和尼维斯	51,000

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### 6个字母最普遍的发音方法

Aa [ei]	Bb [bi]	Cc [ci]	Dd [di]
Ee [i:]	Ff [ef]	Gg [gi]	Hh [he]
Ii [ai]	Kk [ki]	Ll [li]	Mm [em]
Nn [en]	Oo [oi]	Pp [pi]	Qq [ki]
Rr [er]	Ss [si]	Tt [ti]	Uu [ui]
Vv [vi]	Ww [wɪ]	Xx [ks]	Yy [ji]
Zz [zi]	ZZ [zi]		



→ Redistribution of the economic  
→ Competing about heads and knowledge  
→ Regional development – EU not "special"



**The Economist**

What Russia's winter reveals  
PAGES 14 AND 21-23

Cheney's pot shot  
PAGE 34

Europe's buy-out boom  
PAGES 12 AND 68

Google's bubble pricked  
PAGE 58

FEBRUARY 18TH-24TH 2008 [www.economist.com](http://www.economist.com)



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Nordisk Ministerråd

# HOW TO MANAGE AN AGEING WORKFORCE





# Quick "SWOT"

A dynamic region for knowledge and growth....?

- **Strengths**

- Good knowledge systems
- Will to co-operate
- Markets in growth

- **Weaknesses**

- Size, lack of critical mass
- Common priorities?
- Lack of regional integration

- **Opportunities**

- Globalisation
- Knowledge, innovation and technologies
- Regional development

- **Treats**

- Aging workforce
- Increased global competition
- Go alone

# Priorities – NCM

## Knowledge and innovation for growth



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- Research and Innovation
  - Northern Research and Innovation Area
  - Nordforsk and NICE
- Quality in education
  - NordPlus programmes
  - Nordic Masters
  - Fostering talents
  - Follow up the PISA-survey
- Interplay research, education and innovation
- IT flagship - a few

# Priorities – NCM

## Knowledge and innovation for growth



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## Studies:

- Research and Innovation
- Quality in education
- Interplay research, education and innovation
- IT flagship - a few
- Opening national research programmes in Norden?
- Next generation PISA
- Comparative study teachers education
- Comparative study – what works?
- Comparative studies, benchmarking

# Closer Nordic – Baltic co-operation

- Education
  - Case NordPlus
- Research
  - Case NORDUNET3
- IT
  - Case Northern eDimension Action Plan
- Invest in Research and Innovation
  - [www.n-iri.org](http://www.n-iri.org)

## Our Perspective

- A Baltic Sea region as a major European region of growth and creativity

The Lisbon Strategy, the partnership between the EU and Member States for growth and more and better jobs

### **SPECIFIC AREAS FOR PRIORITY ACTION**

The European Council agrees on the following specific areas for priority action to be implemented by the end of 2007 in the context of the renewed Partnership for growth and employment.

1. Investing more in knowledge and innovation
2. Freeing up SME's and unlocking business potential
3. Getting people into work
4. Efficient, secure and sustainable energy

The principle of "think small first" must be applied systematically and become a guiding principle for all relevant legislation at Community and national levels.





# NordPlus

4 programmes for collaboration on education in schools,  
higher education, adult learning and nordic languages

Yearly budget about 10 mill EURO

*Tentative thinking – before decisions*

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**NordPlus  
programmes**

# Governance - structure

NCM structure and activity		Baltic country activity	NB8
NCM-U	Decide	Advice	Agreements, meets
CSO-U	Program & structure	Program & structure	Committee
Advisory Committees	Advice/decide Yearly mandate	Advice Yearly mandate	Joint meeting One time a year
Programme Committees	Decide Call & projects	Decide Call & projects	Participate on Equal footing



# Nordunet3

A Nordic eScience effort  
Programme running for 4 years  
Budget: appr. 4 mill Euro

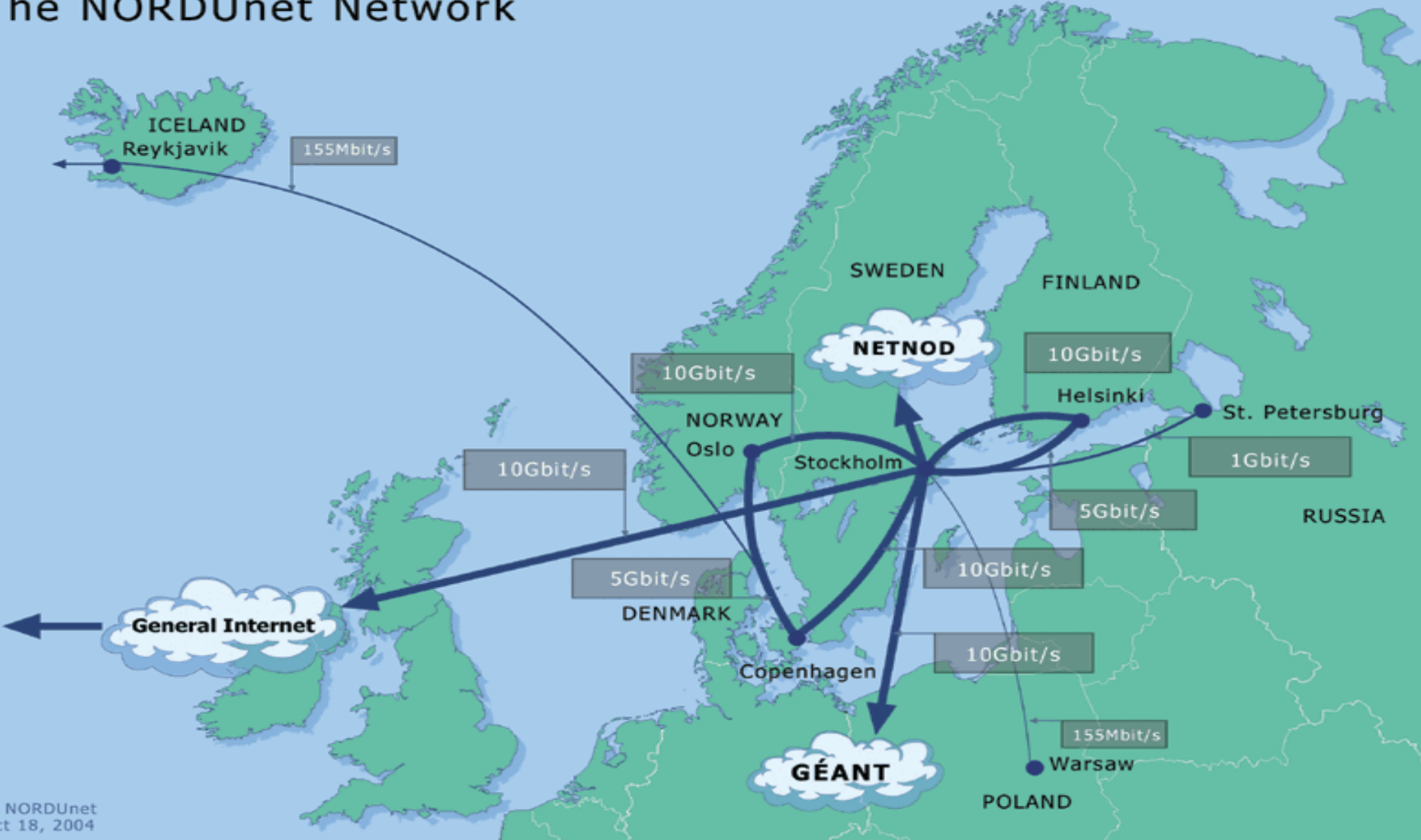
*Tentative thinking before final decisions*

# Background

1. 1985 – 91 Nordunet (1) programme: Building of a joint data communications network for research and education
2. 1993 NORDUnet A/S Company: Operational joint Nordic Stock Company, owned by the 5 Nordic Government according to a GDP share
3. 1999-2001 Nordunet2 programme: Research within Distance education, Tele Medicine, Digital libraries, Infraservices (protocols, security)
4. 2003 Nordunet3 policy document: “A Nordic eScience Area”, by IT-policy Group
5. 2003 Nordunet3 research proposal: By Joint Committee of the Nordic Natural Science Research Councils, NOS-N
6. 2004 Nordunet3 funded by NCM and NOS-N: 1 M€ pr year for 4 years => NCoE in 2009?
7. 2005 Nordunet3 Memorandum: Network security; Internet and communication services
8. 2005 NeDAP AL 1 Proposal: 10% in reserve dedicated cooperation with Baltic/Russian + ?

# IT infrastructure and the research on top of it

## The NORDUnet Network

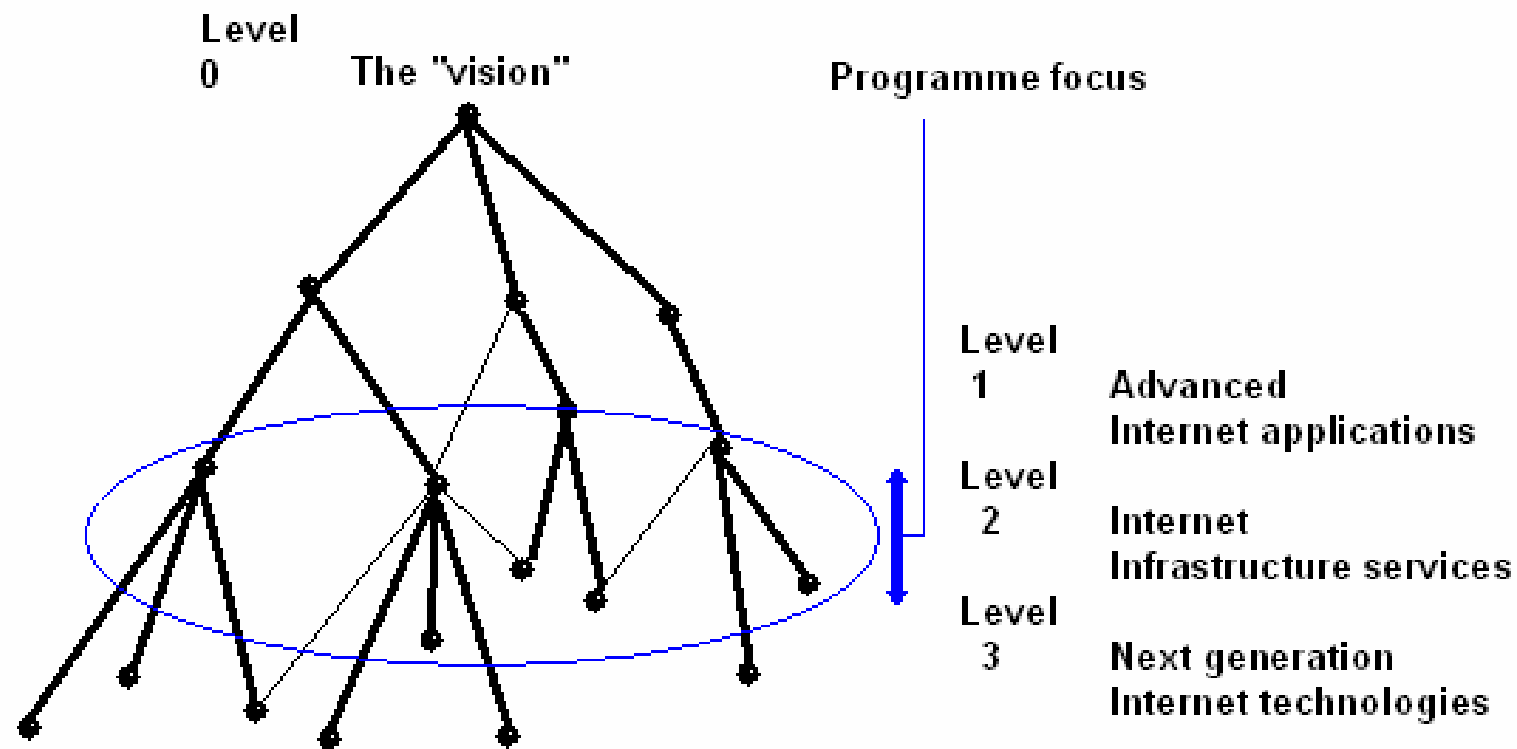


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Oct 18, 2004

# Nordunet3 – Policy Rational

**Vision:** Strong Nordic Niche within Internet Supported R&D (eScience) – Supporting Knowledge-Society

Research and Development  
in Internet and advanced Internet applications





# Nordunet3 – R&D Substance

## Network security

- Safety
- Privacy
- Anonymity, anonymous data access
- Authorization and Authentication
- Trust
- Identity management
- Inter-organization and international resource sharing.
- Encryption
- Digital signatures
- Legal issues
- Scalable security architectures
- Security in very-high-speed networks
- Security of networked computing and storage platforms
- Security aspects of roaming and mobile network use
- Wireless Security

## Internet communication services

- Grid Computing
- Peer-to-peer Networking
- Quality of Service
- End-to-end Network Services and End-to-end Resource Management
- Network Monitoring, Measurement, and Profiling
- Performance of Internet Protocols
- IPv6
- Network Usability
- Support for very high data rates and large amounts of data
- Mobile Internet
- Networks for Pervasive Computing

# Northern eDimension Action Plan

A joint action plan on IT – partnership CBSS – Norden  
Under the umbrella of the Northern Dimension action plan

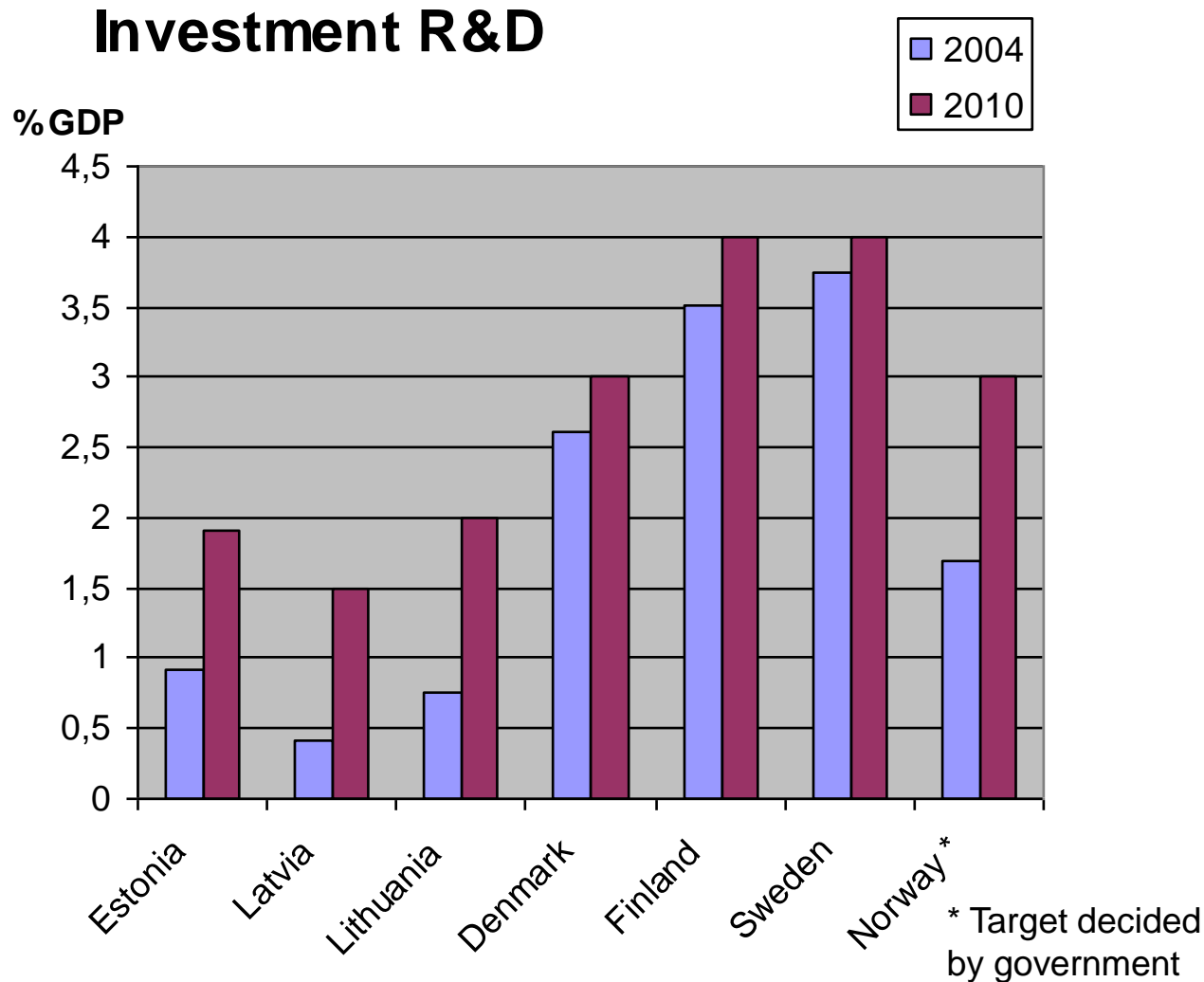
- Nordunet3
  - Statistics and benchmarking
- **Analyse if and how the choice of Nordic Flagship(s) also can give effect in relation to NeDAP**



# “Investing in Research and Innovation – Exchanging European Experiences in a Nordic Context”

- co-organised with the European Commission
- will take place in Copenhagen 16 – 18 October 2006
- a key event for the Norwegian Presidency of the Nordic Council of Ministers

# R&D expenditure (2004) as % of GDP and targets set by Nordic and Baltic States in National Reform Programmes



# Main themes for the conference:

- Strategical aspects of integrating the European Research and Innovation Area
  - Human potential – Researchers' careers and mobility
  - Innovation, investments and commercialising
  - Research and Innovation for regional growth – bringing regions faster into the knowledge economy
- 
- Pre conference workshops
    - 16.10: Opening up Nordic national research programmes
    - 17.10: The Baltic Sea initiative 2010

# Main **aims** of the conference

## The conference should:

- **stimulate** territorial entities (sub-national entities but also cross-border regions) countries and regions to participate in building the European Research and Innovation Area
- **exchange experiences** and best practices on the role of territorial entities and their contribution to the European Research and Innovation Area
- **mobilise** actors to prepare for the 7th Community RTD and the Competitiveness and Innovation Framework programmes.



## Our Perspective

- A Baltic Sea region as a major European region of growth and creativity



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