

20th

NORDUnet Networking Conference

**15-17 April 2002, Bella Center
Copenhagen, Denmark**

15 April 2002

**Early results from the TERENA
Compendium Survey: some things that will get
into the Compendium and others that won't...**

*Bert van Pinxteren,
TERENA Chief Administrative Officer*



How well do you **really** know the Nordic Research and Education Networks?

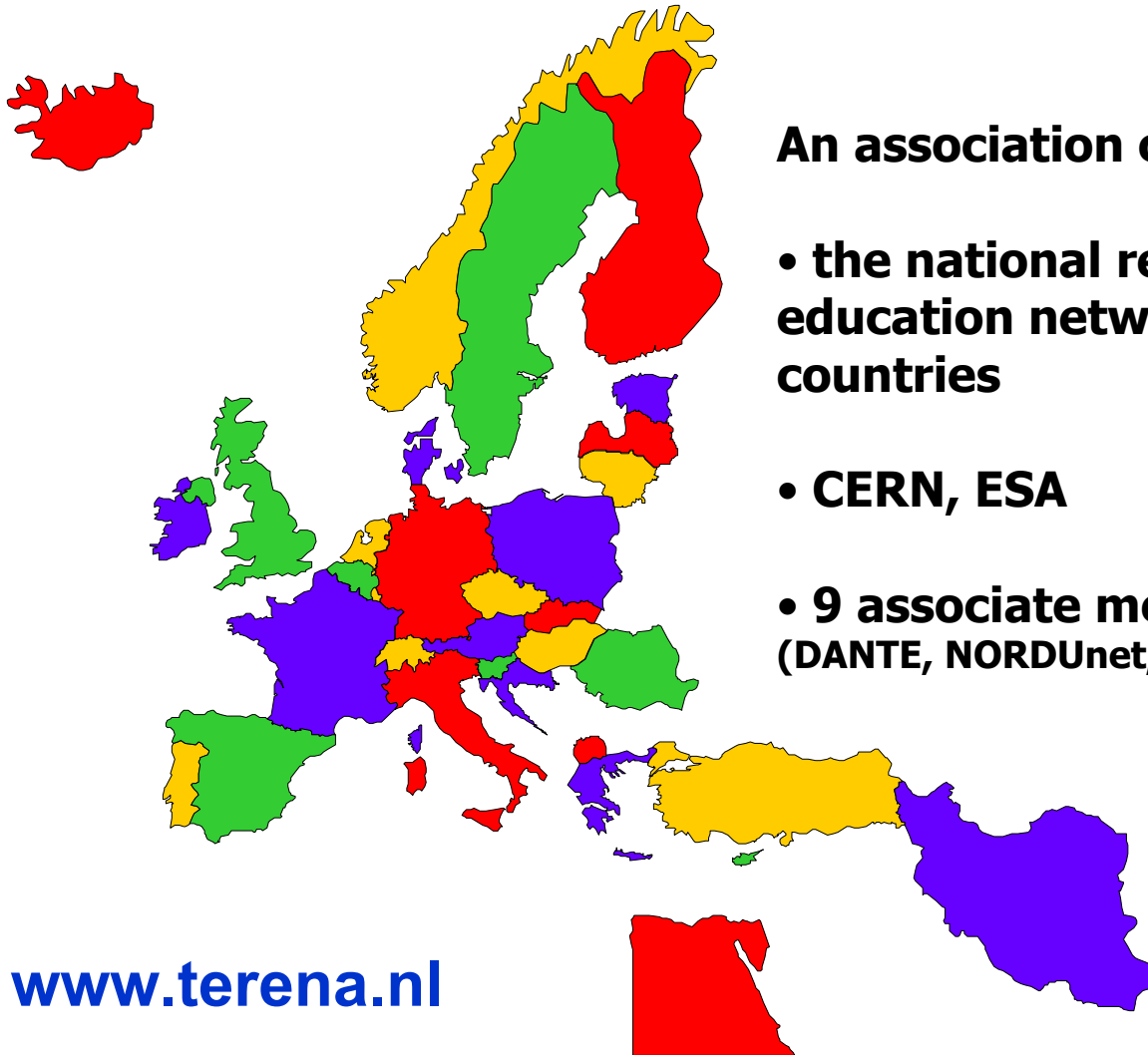
Structure of talk:

- A few words about TERENA;
- Background to the TERENA Compendium;
- Some key facts about the Nordic countries;
- The Gigabit revolution and its consequences;
- A word about benchmarking;
- Will you help?

<http://www.terena.nl/compendium>



What is TERENA?



An association consisting of:

- the national research & education networks of 33 countries
- CERN, ESA
- 9 associate members (DANTE, NORDUnet, industry)

www.terena.nl



What does TERENA do?

The four pillars of TERENA:

- **providing an environment for fostering new initiatives of the European research networking community**
 - **e.g. pilot services (such as the CSIRT Trusted Introducer)**
- **supporting joint European work in developing, evaluating, testing, integrating and promoting new networking, middleware and application technologies through the TERENA Technical Programme**
 - **task forces, projects, workshops/meetings**
- **supporting the exchange of information in the European research networking community, and promoting knowledge transfer to less advanced networking organisations**
 - **conferences/workshops, training**
- **promoting members' interests by representing the common interests and opinions of the membership in contacts with relevant organisations**



TERENA Compendium of National Research and Educational Networks in Europe

Background

- Idea first discussed at TERENA GA meeting in Istanbul, October 1999
- First trial in 2000
- First 'real' version out in October 2001 (print & web)

<http://www.terena.nl/compendium>



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2002 questionnaires distributed early this year, currently processing the results.

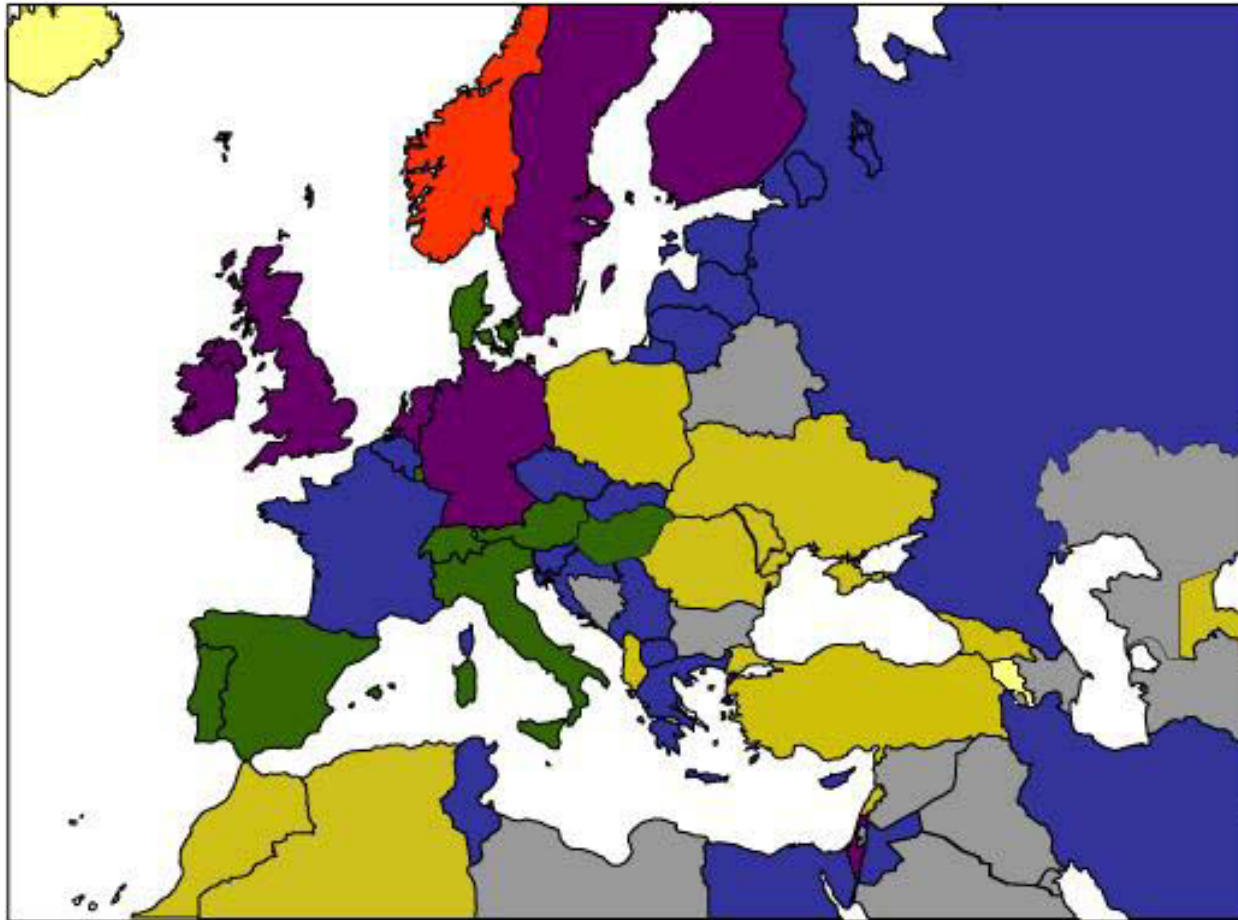
Review panel:

- Lajos Bálint (HUNGARNET)
- Urs Eppenberger (SWITCH)
- Sabine Jaume (RENATER)
- Mike Norris (HEAnet)
- Helmut Sverenyák (CESNET)

<http://www.terena.nl/compendium>



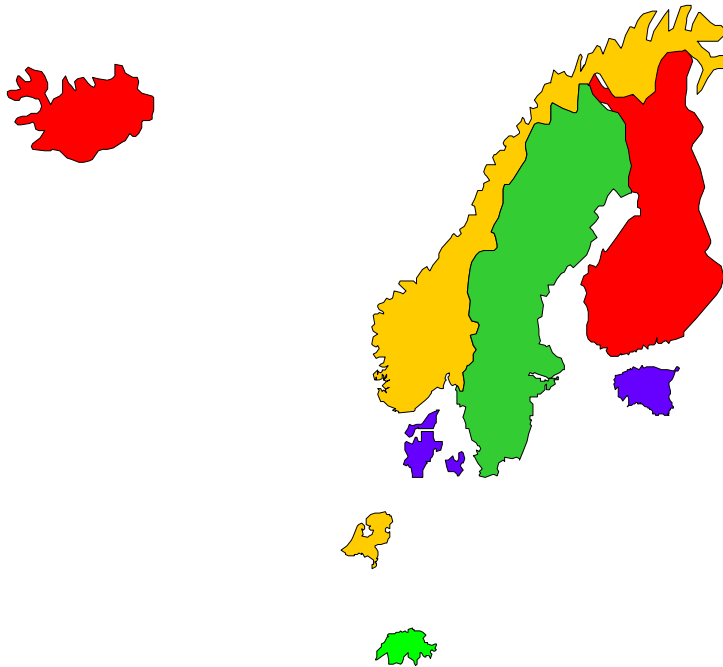
TERENA Compendium: responses to the 2002 questionnaire



<http://www.terena.nl/compendium>



TERENA Compendium: responses to the 2002 questionnaire



Some key results from the Nordic countries,

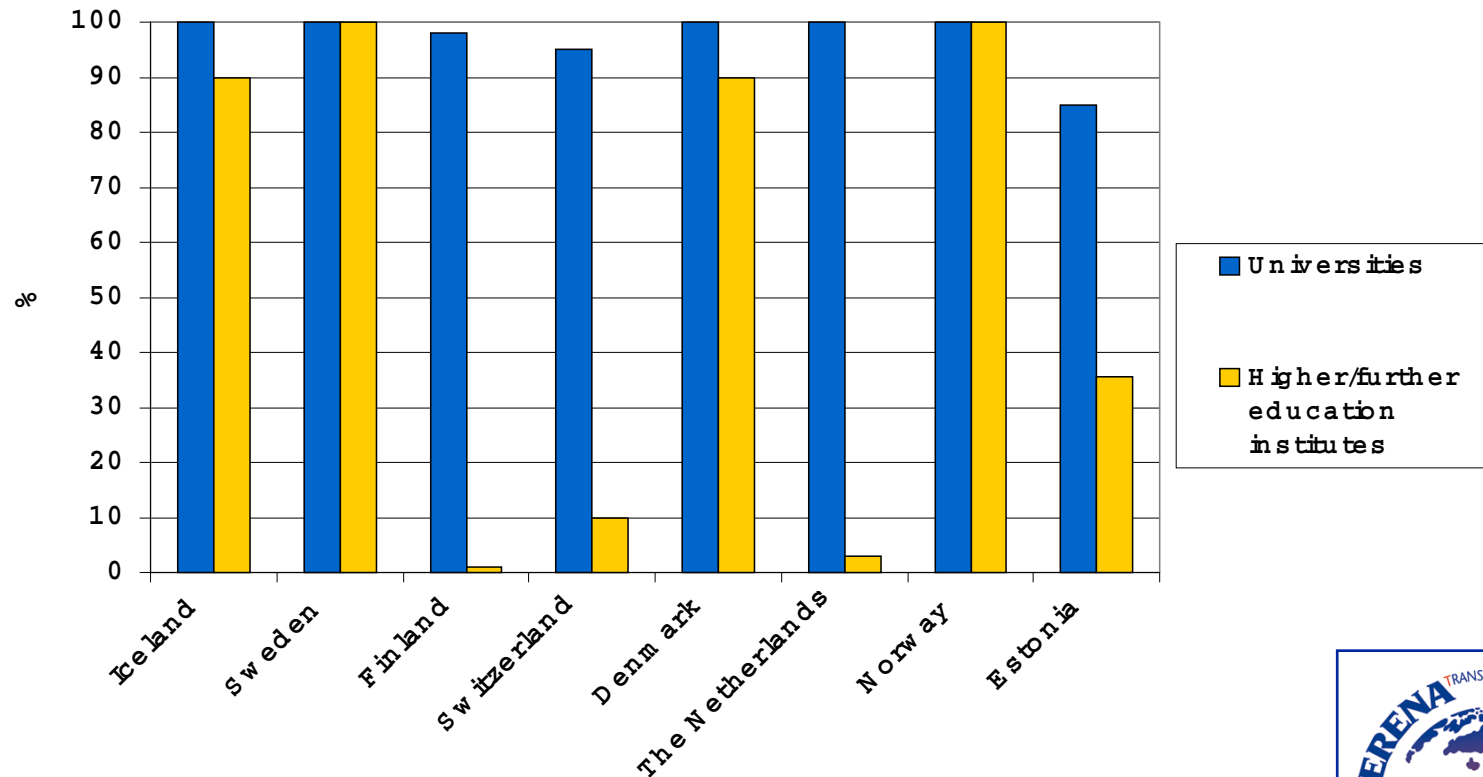
with comparative data from a few other countries.

<http://www.terena.nl/compendium>



TERENA Compendium: responses to the 2002 questionnaire

Some basic data: market share of NRENs

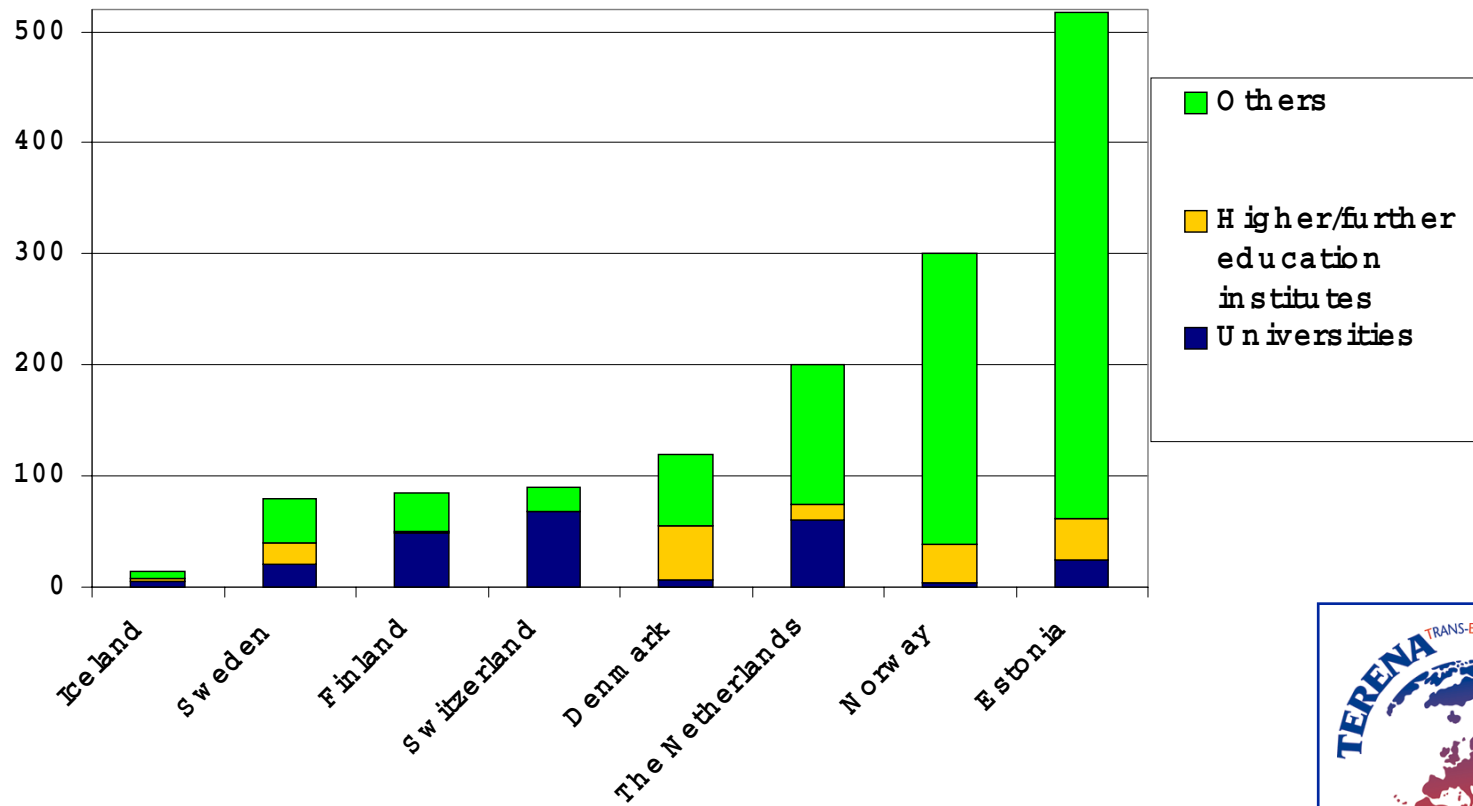


<http://www.terena.nl/compendium>



TERENA Compendium: responses to the 2002 questionnaire

Some basic data: number of institutions with permanent connection

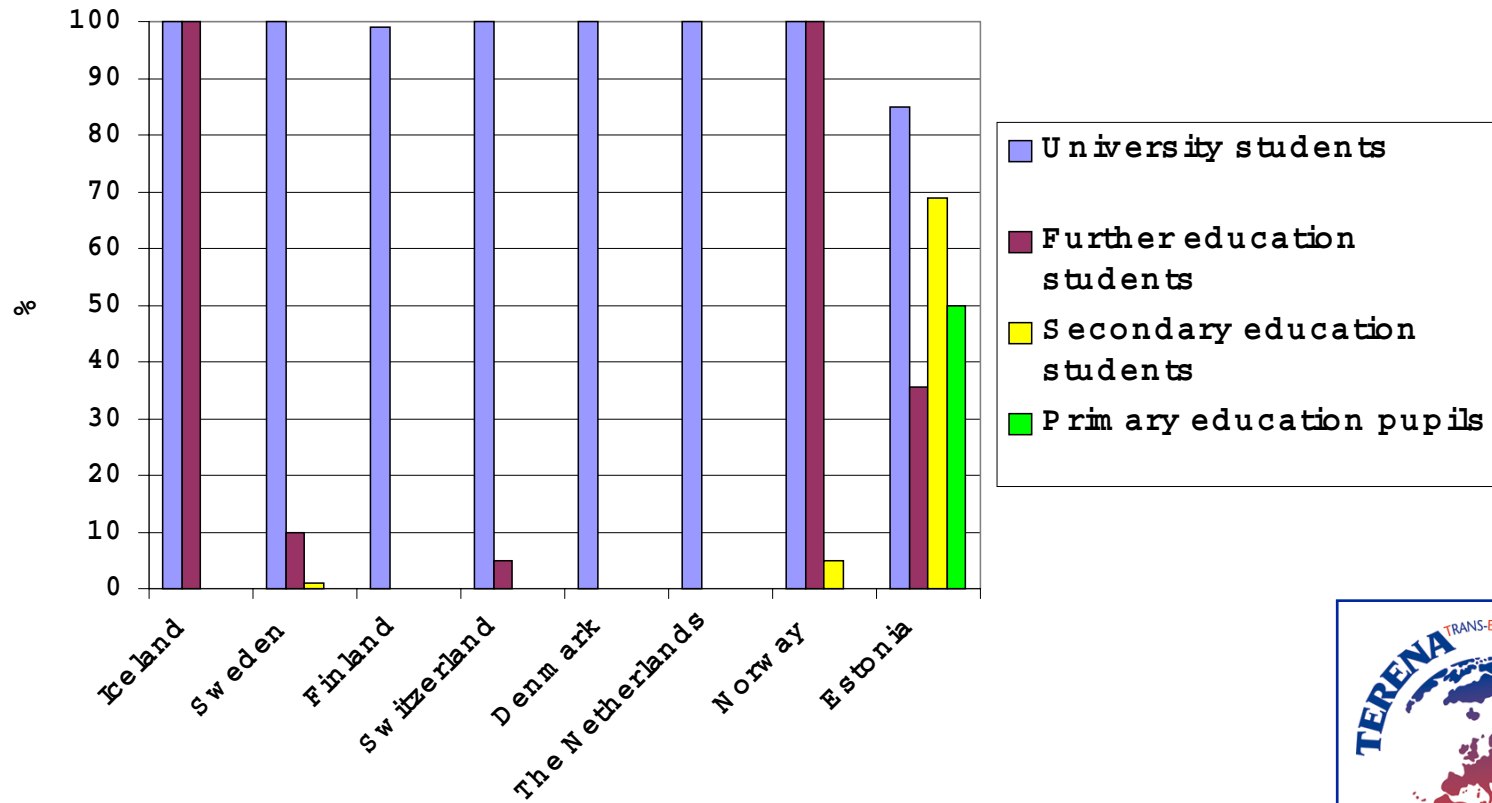


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TERENA Compendium: responses to the 2002 questionnaire

Some basic data: % of students with Internet access through the NREN



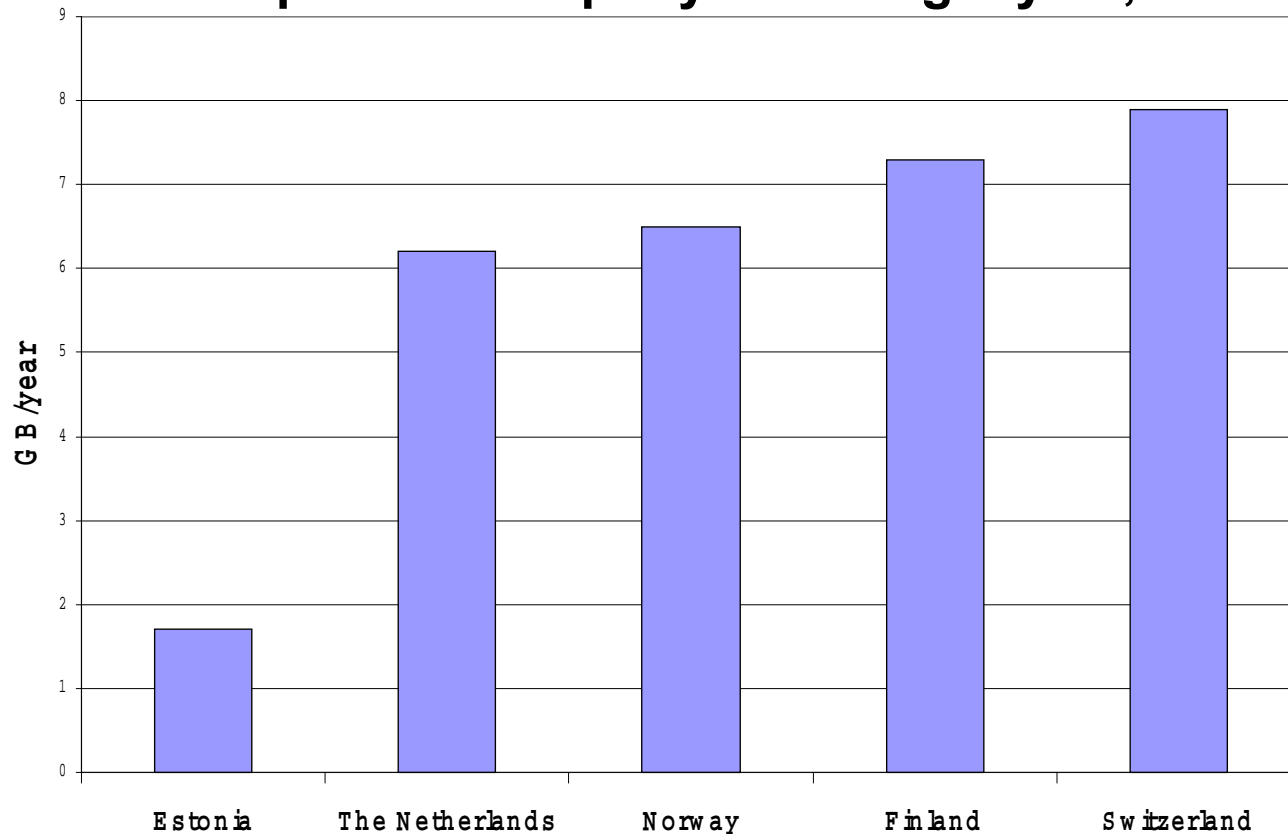
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TERENA Compendium: responses to the 2002 questionnaire

Relative size:

Traffic per student per year in Gigabytes, 2001

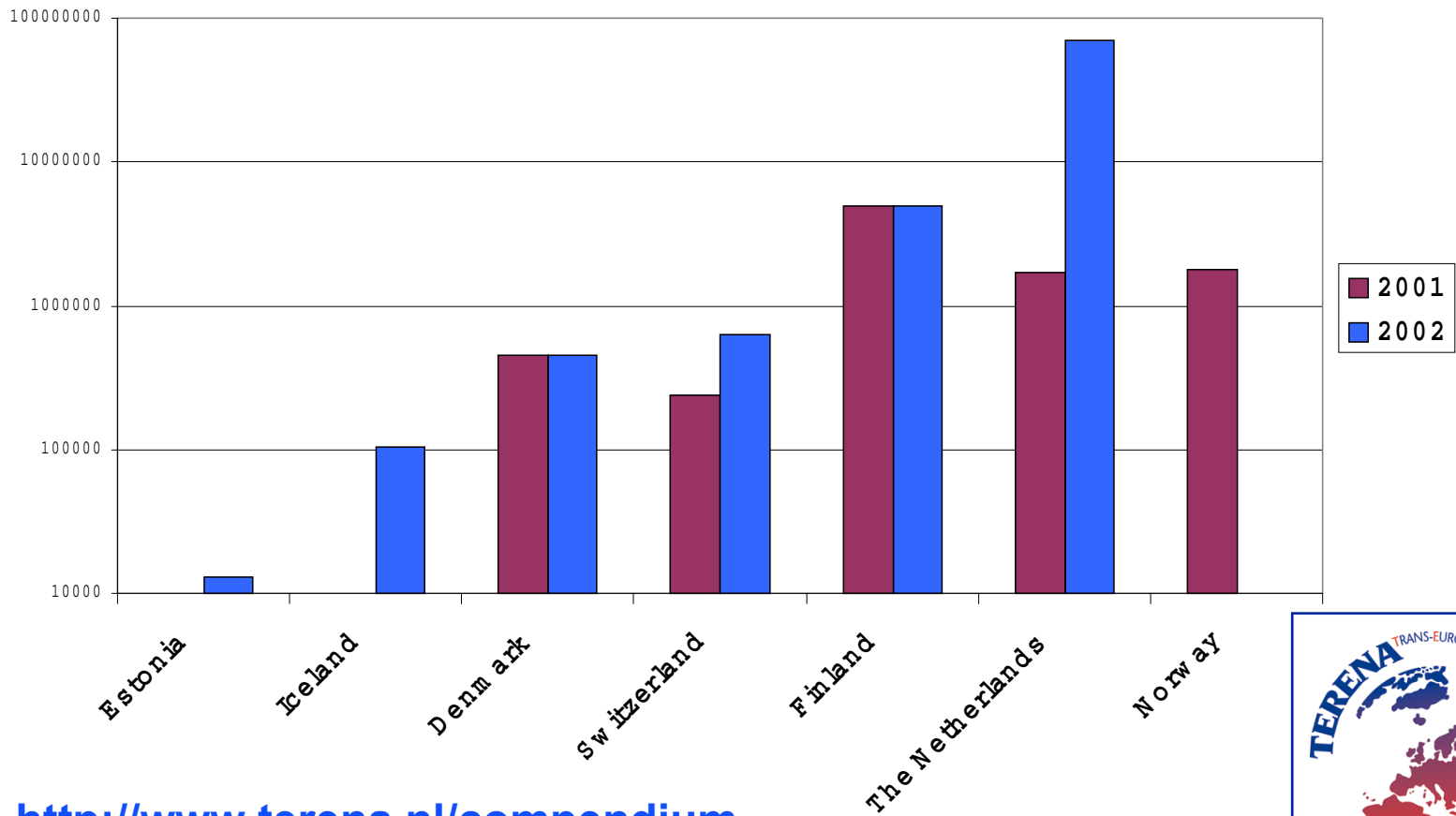


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Absolute network size: Mbps x km:



<http://www.terena.nl/compendium>



TERENA Compendium: responses to the 2002 questionnaire

I will return to this matter of relative size later.

But first, let's go back in time...

to 1999: the TERENA – NORDUnet Conference
in Lund, Sweden.

Its theme was:

“The Challenge of Gigabit Networking”

Now, Gigabit networking has arrived!

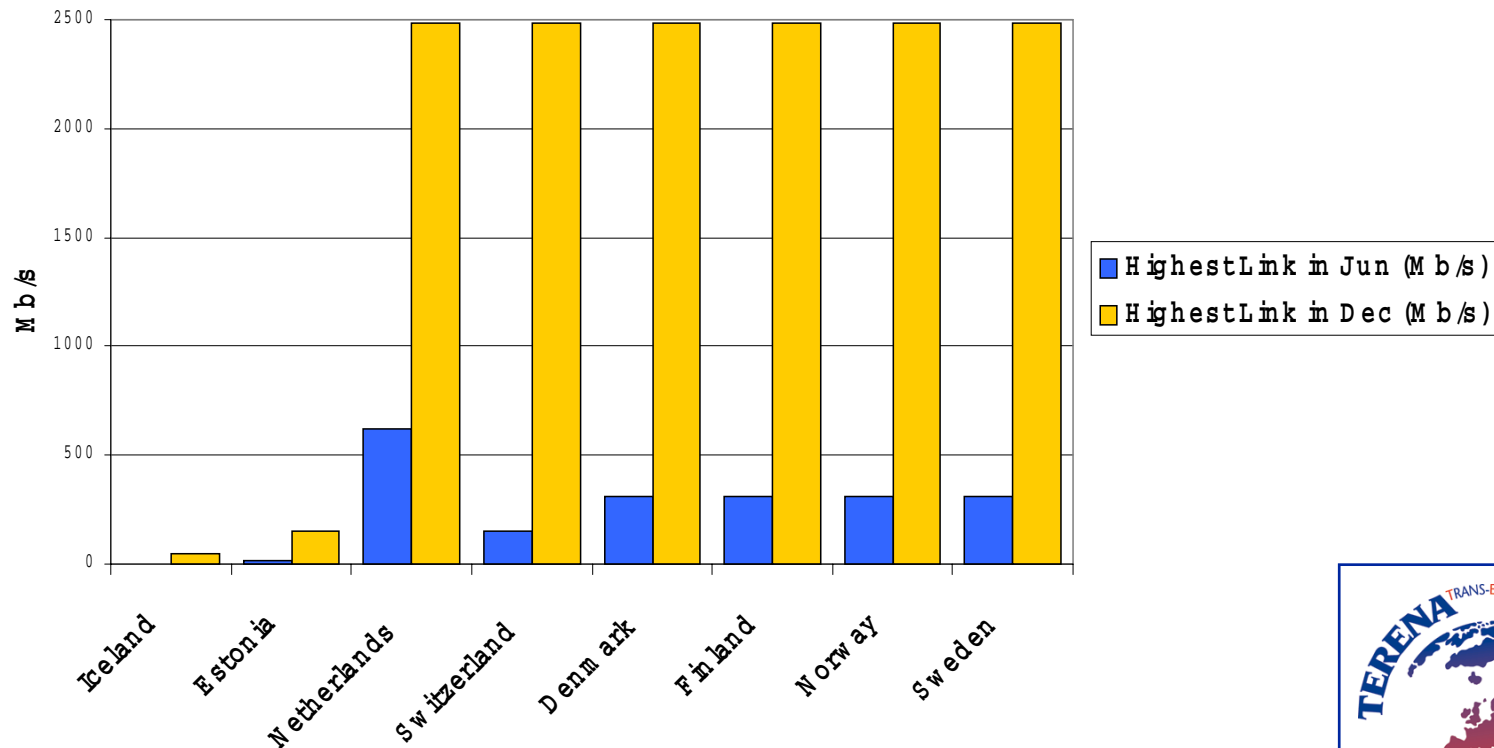
<http://www.terena.nl/compendium>



TERENA Compendium: responses to the 2002 questionnaire

The GÉANT Quantum Leap of Nov./Dec. 2001

Capacity of highest link, June and December 2001



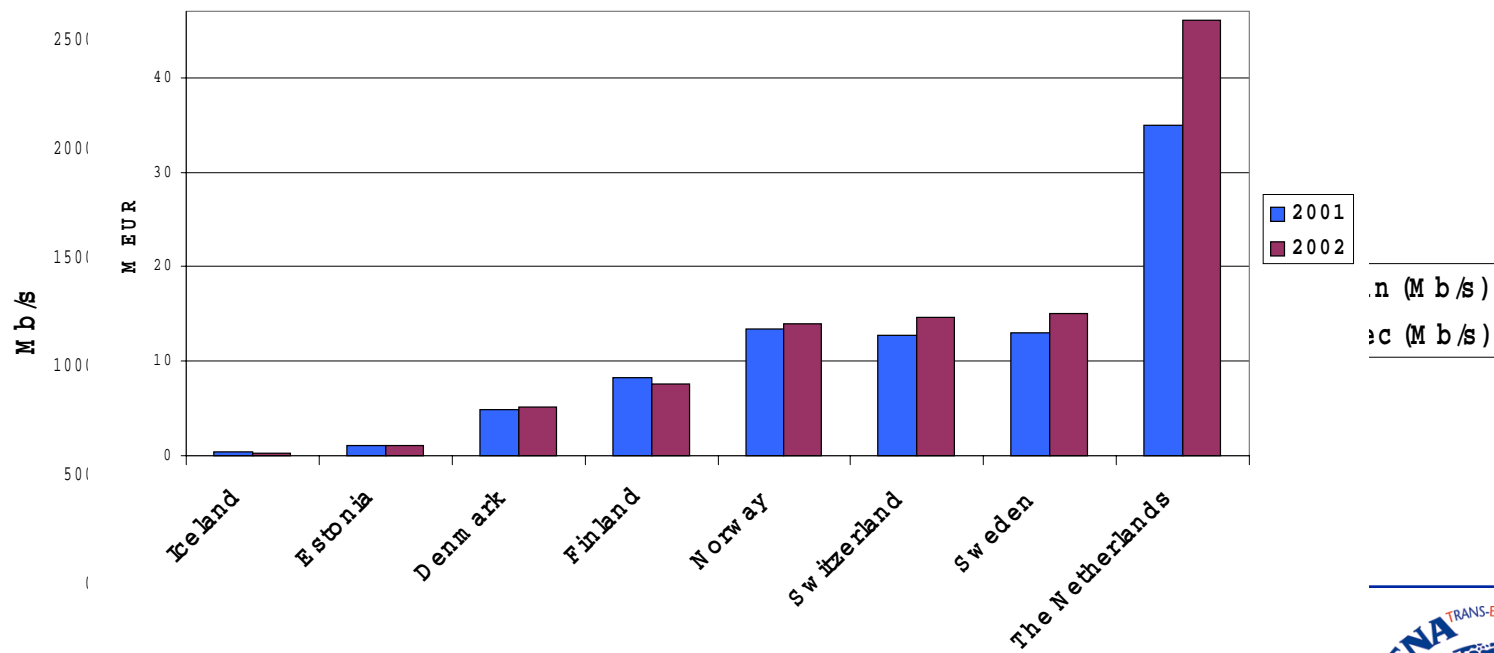
<http://www.terena.nl/compendium>



TERENA Compendium: responses to the 2002 questionnaire

Bandwidth has gone up tremendously, but...

NREN budgets



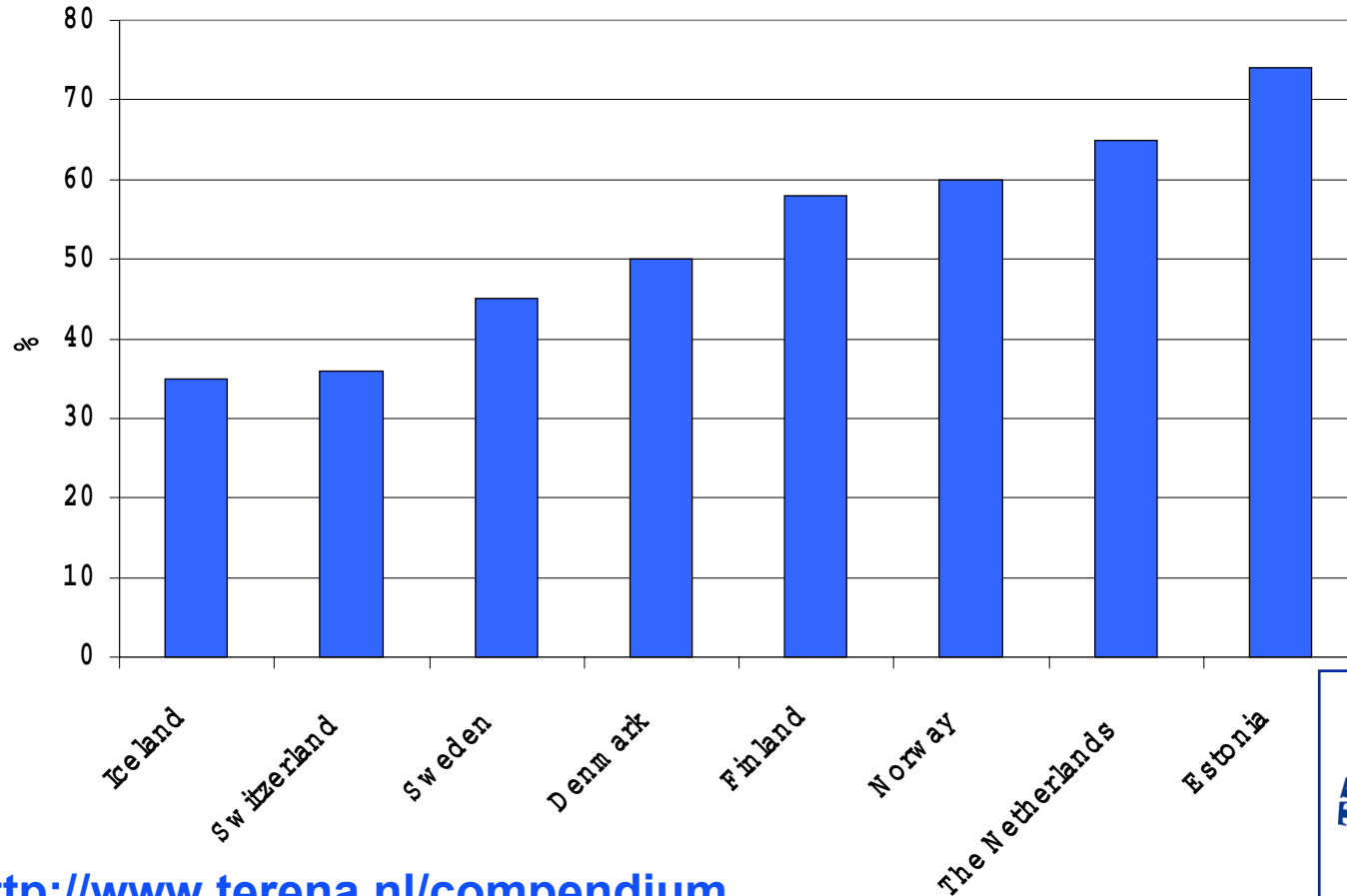
without a corresponding increase in budgets!

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TERENA Compendium: responses to the 2002 questionnaire

Telco cost as % of total budget, 2002

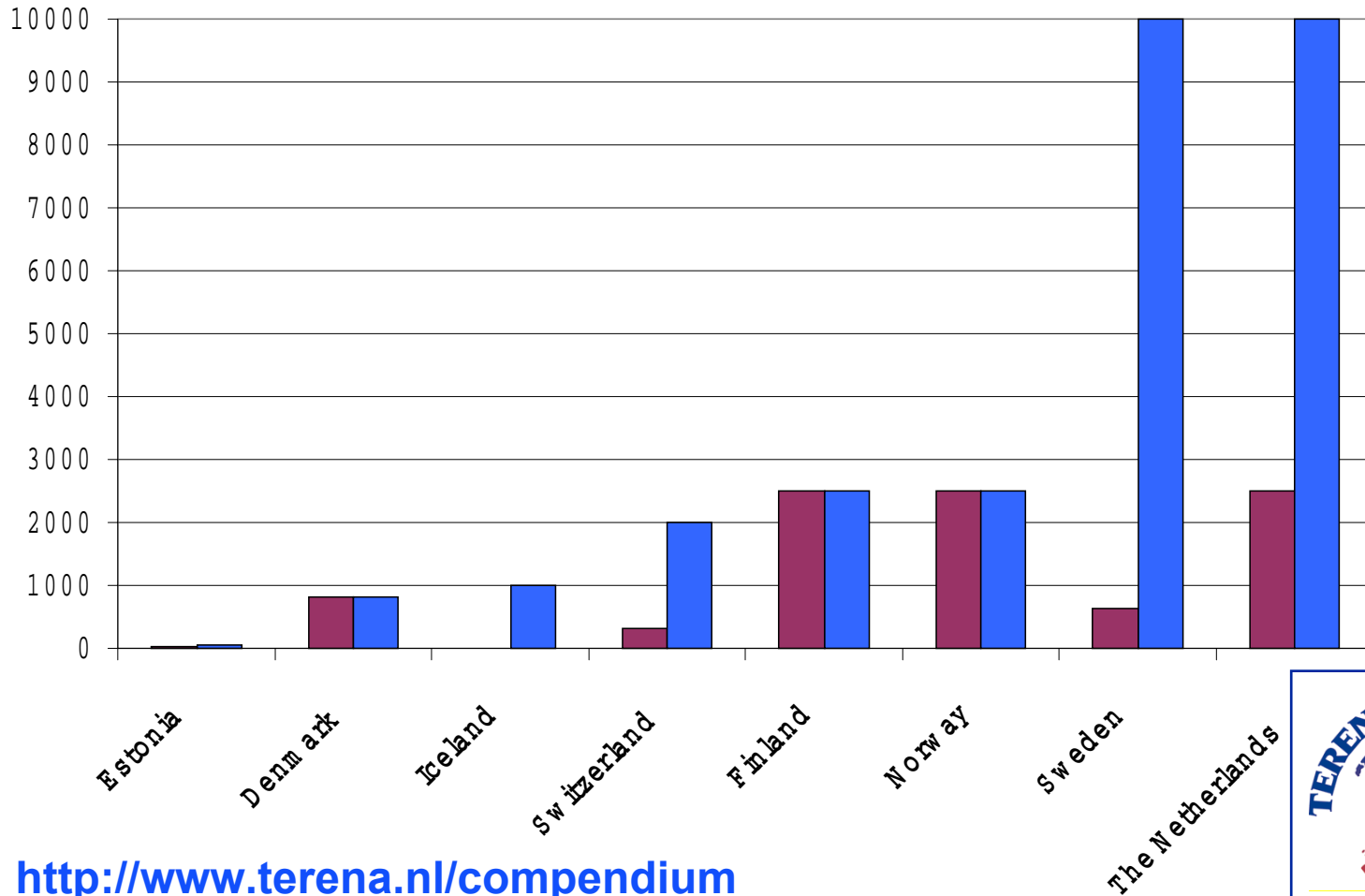


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TERENA Compendium: responses to the 2002 questionnaire

Core networks speeds, 2001 and 2002

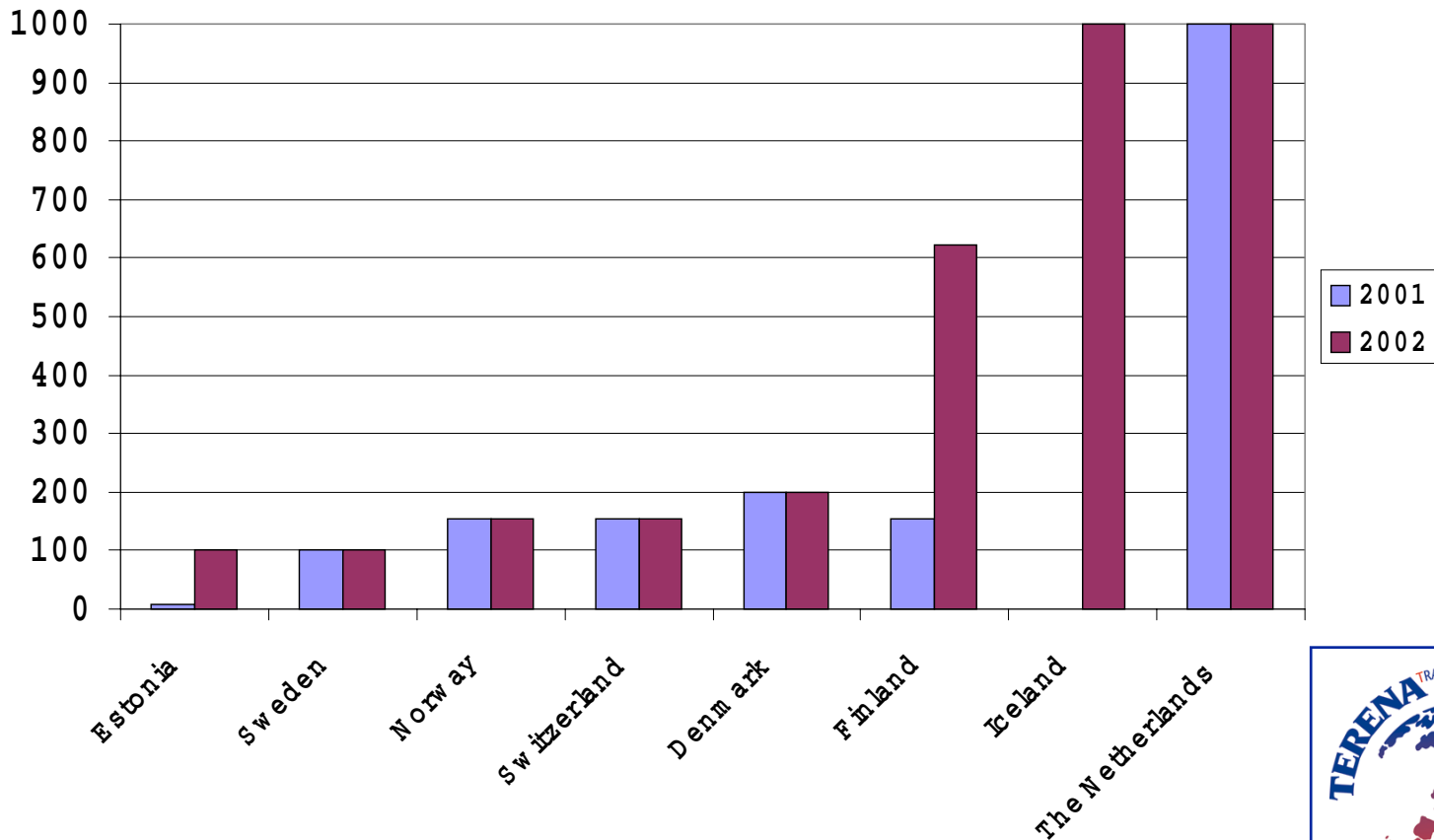


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TERENA Compendium: responses to the 2002 questionnaire

Large-site access speeds, 2001 and 2002

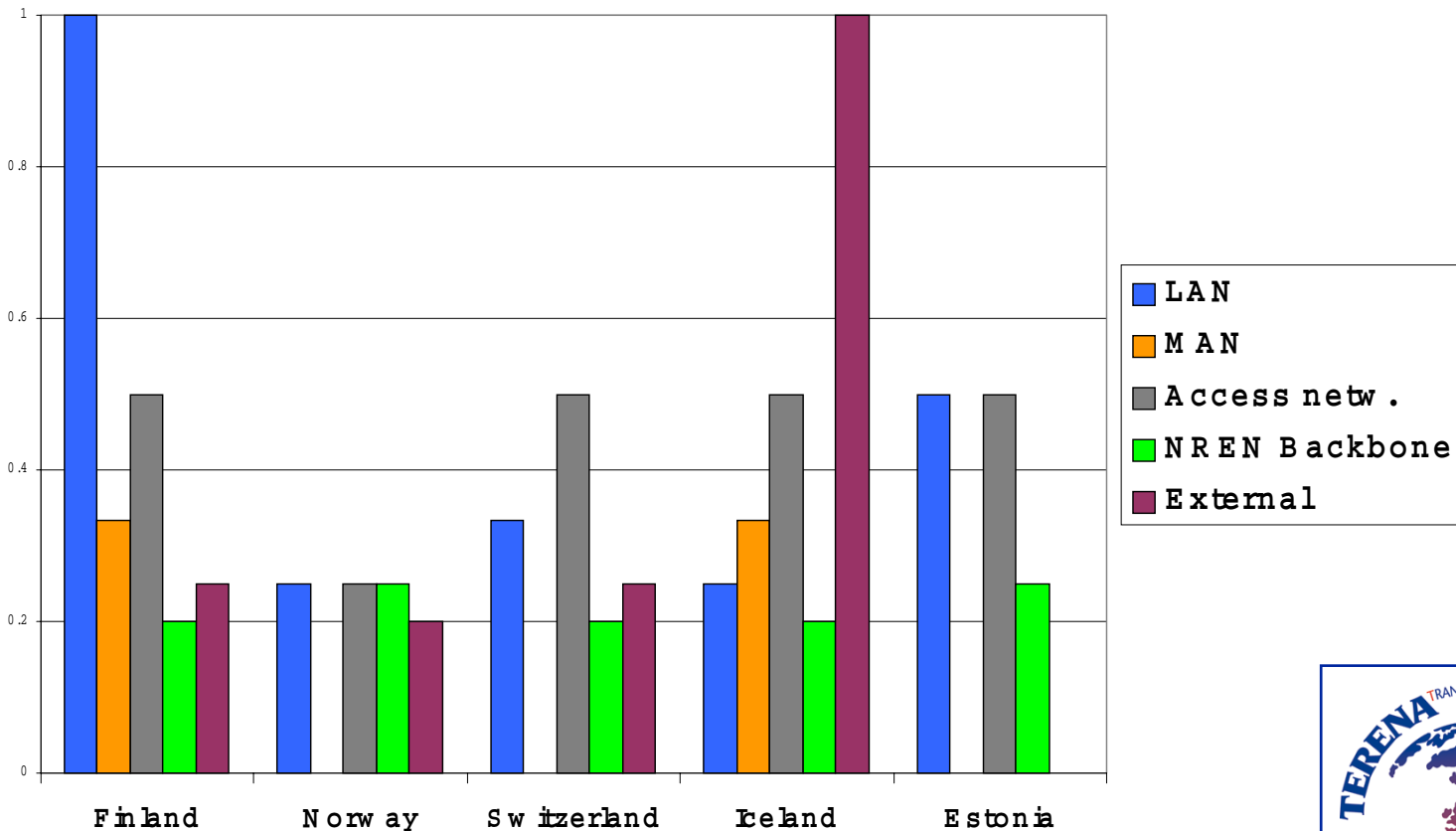


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TERENA Compendium: responses to the 2002 questionnaire

Where is the congestion in the network? (rankings)

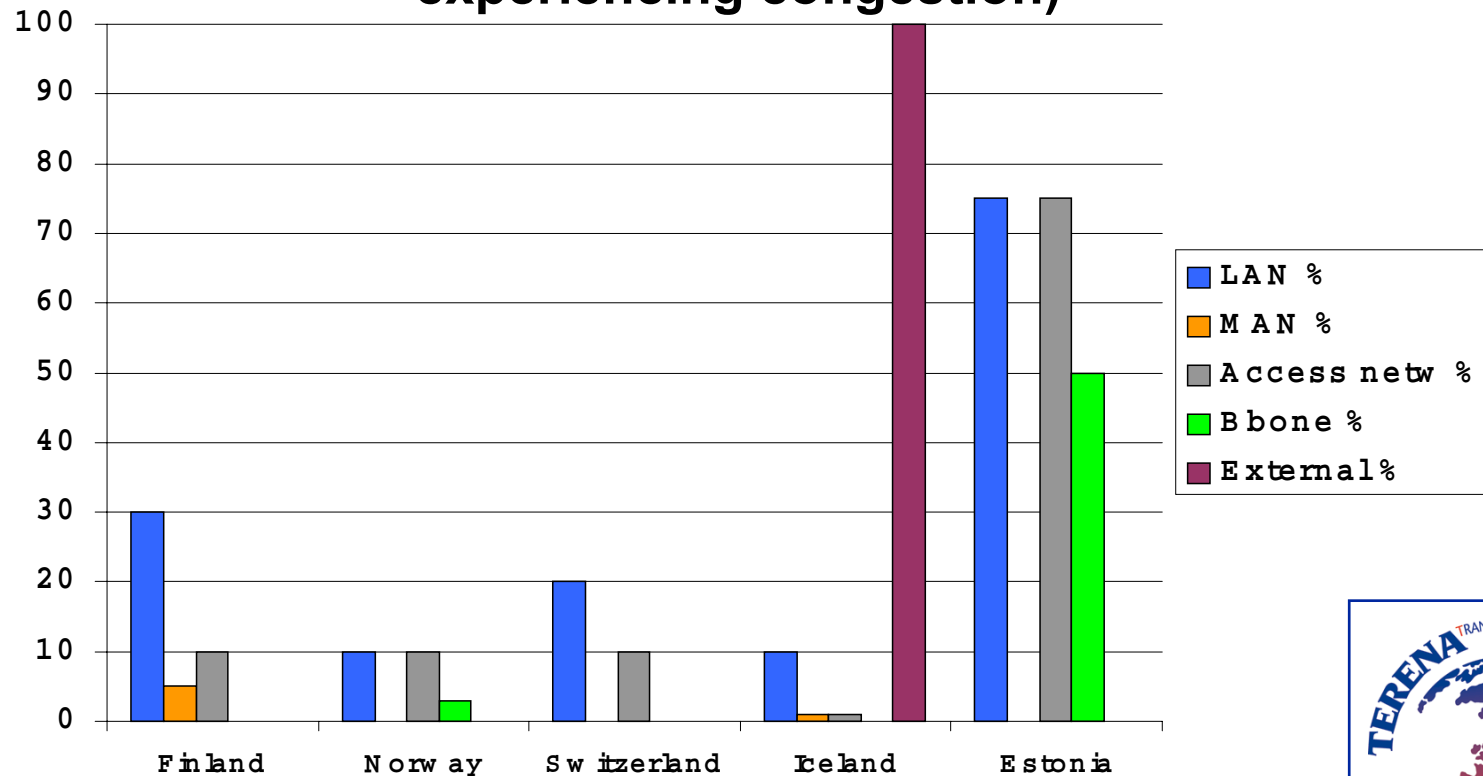


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TERENA Compendium: responses to the 2002 questionnaire

Where is the congestion in the network?
(absolute: estimated percentage of connected institutions experiencing congestion)



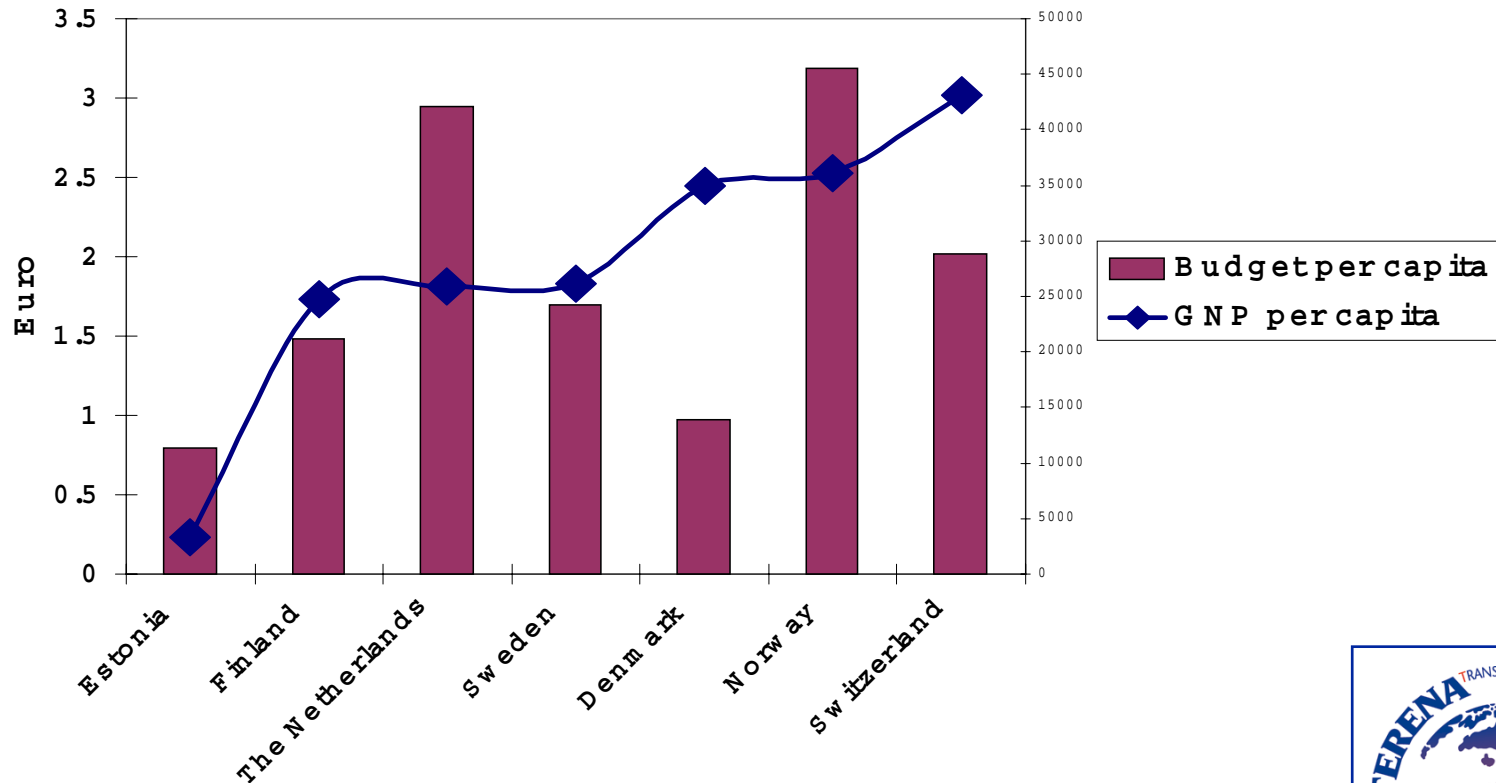
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Relative financial size:

NREN budget per capita, 2002 (*preliminary data !*)



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The policy relevance of the Compendium:

- Has been used by several NRENs to help convince their governments that more funding was needed
- Was an important basis for the Internet for Research & Development section of the SIBIS project, which aims to develop Statistical Indicators for Benchmarking the Information Society
- Was used for eEurope Action Plan benchmark indicators.

<http://www.sibis-eu.org>

<http://www.europa.int/>



TERENA Compendium of National Research and Educational Networks in Europe

- The Commission will provide funding for the COM-REN project, which will make publication possible of the Compendium in 2002 and 2003
- The COM-REN project is also supposed to generate two sets of benchmarking data

Benchmarking

What on Earth does it mean?

It is one of these new buzzwords that in theory has a precise meaning, but in practice can mean almost anything.

<http://www.terena.nl/compendium>



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- In the eEurope Action Plan, the main indicator in the area of “*Faster Internet for researchers and students*” was:
- **Speed of interconnections and services available between and within national research and education networks (NRENs) within EU and world-wide**
- **But the eEurope Action Plan is ending, and there is no certainty about the fate of benchmarking in its successor (eEurope 2005?)**

<http://www.terena.nl/compendium>



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So, will **Benchmarking** disappear as quickly as it appeared??

I don't think so...

- The EU will continue to play an important role in the development of research networking
- Europe is being forced to be accountable for what it does with all its funds
- This is likely to happen at the national level as well

Therefore: let's work together to make sure that indicators that are developed are both meaningful and useful!

<http://www.terena.nl/compendium>



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Relative size:

Traffic per student per year in Gigabytes



(But that should improve in future years.)

<http://www.terena.nl/compendium>



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HELP WANTED!

- Send us your criticisms!
- Volunteer for the new Review Panel!
- Let's think about what we *really* want to know.
(note: more questions leads to fewer answers!)
- Ideas / proposals for further study?
- *Check and update your data as they become available!*
- To be continued...

<http://www.terena.nl/compendium>

mail to: bert@terena.nl



TERENA Networking Conference, Limerick, Ireland, 5-7 June 2002

- You are cordially invited to attend,
- registration is still open,
- I will present again in the session on the TERENA Technical Programme.

<http://www.terena.nl/tnc2002>

Concert Hall