



HELSINKI UNIVERSITY OF TECHNOLOGY

COMP / LABORATORY OF PHYSICS

*e-IRG Workshop*  
*CSC, October 4, 2006*

*Recent developments in cyber-infrastructure:  
the "northern dimension"*

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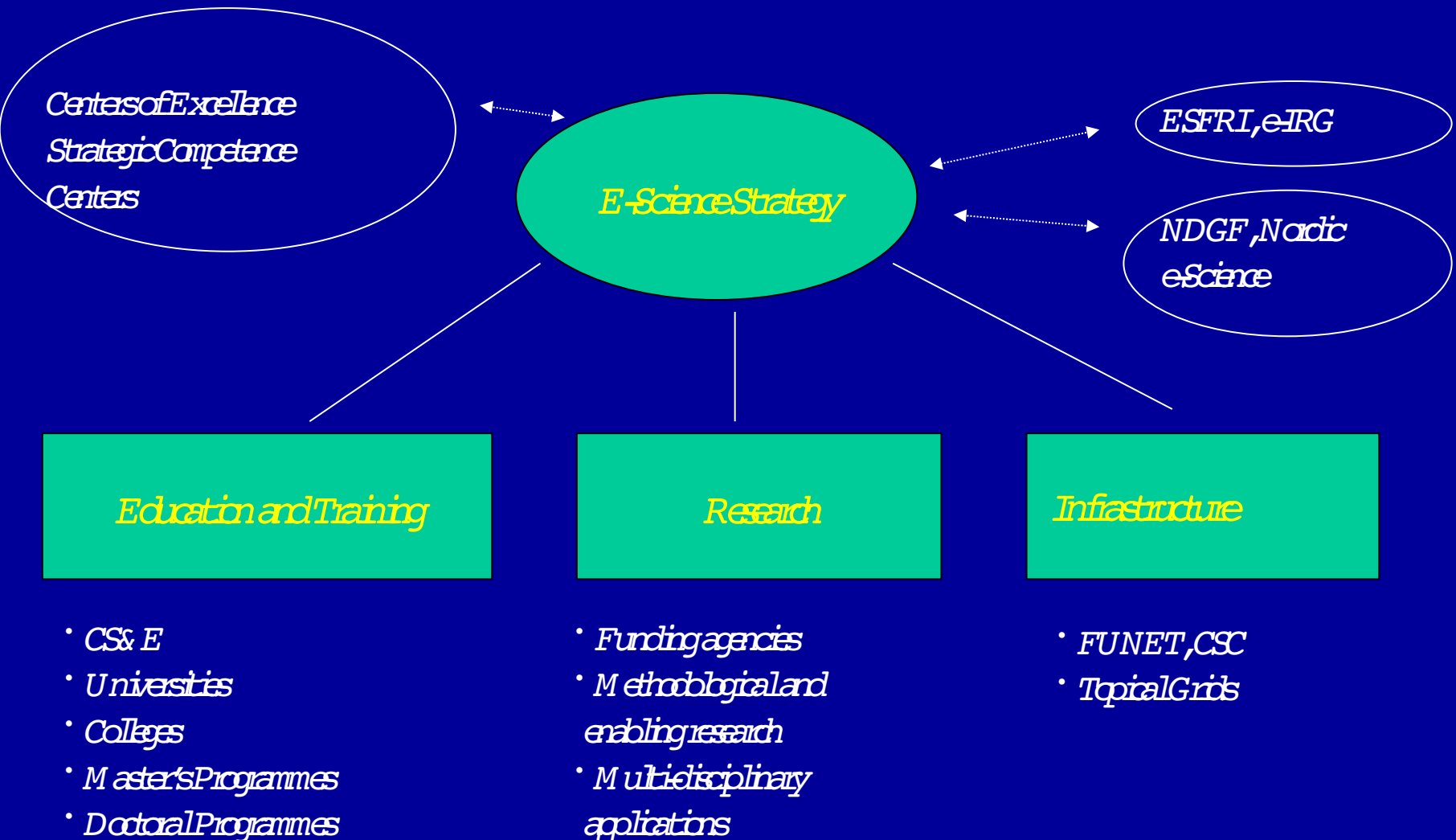
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# 1. Finish National GRID / eScience Strategy

Due 31.12.2006

Proposed Outline:



## *2. Nordic Science Strategy*

*Denmark-Sweden-Norway-Finland-Iceland*

*NordForsk*

*NOSA*

*NOSH*

*NOSM*

*networks, infrastructure*

*natural sciences*

*social sciences*

*medical sciences*

## *M GRID — the first large scale grid structure in operation in Finland*

- *Based on strong tradition in computational materials science*
- *Partners: seven university laboratories in physics, chemistry + HIP+CSC*
- *Funding: Academy of Finland + participating organisations*
- *Coordinated procurement & installation (CSC)*
- *Operational, middle heavy throughput facility since late 2004*
  - *based on Linux clusters*



# TheM-GRID system

- *Different-sized Clusters:*
  - *HP Proliant 64-bit Opteron*
  - *2x1 Gbit interconnect*
- *Operating system:*
  - *Linux Red Hat Rocks*
  - *GRID middleware: NodeGridARC*
- *Total cost ca. 1M EUR*
- *In total over 1000 processors, expanding*
- *Total peak performance 2.9 Teraflops*
- *Versatile selection of shared software, archives, databases*
- *Good value for money!*



## *4. Top-end, Capability Computing*

- *CSC as a national facility—new procurements*
- *European infrastructure: HET, FP7?*

*Thank you for your attention.*

*W elcome to Finland!*