

# EGI SSC – Finnish NGI Contribution

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**CSC – IT Center for Science Ltd**



# CSC at a glance

- Founded in 1970 as a technical support unit for Univac 1108
- Reorganized as a company, CSC – IT Center for Science Ltd. in 1993
- All shares to the Ministry of Education of Finland in 1997
- Operates on a non-profit basis
- Facilities in Espoo, close to Otaniemi community (of 15,000 students and 16,000 technology professionals)
- Staff >170
- Turnover 2008 19.6 million Euro



# CSC – Support for Science

- **In total ~90 persons working with computational science support**
  - Maintenance and operation of data and compute resources (including grid resources)
  - Support to users of data and compute resources
    - Application experts
    - HPC expertise (optimization and parallelization)
    - Grid expertise
- **> 200 Scientific applications and databases supported from all major application areas.**
- **Training events in 2008: 85 course days and >1000 participants.**



# SSC Background

- **Recognize the need for user support in scientific and computational matters**
- **Present model (as described in EGI Blueprint) based on experience from EGEE and existing Support Clusters**
  - Good but not sufficient – incomplete picture
- **Existing support for computational science is in most countries predominately provided by computing centers (supercomputer centers)**
  - Different models in different countries (NGI dependent)



# SSC - General Suggestion from CSC

- **Build on existing organizations for computational science support and add coordination**
  - National and regional computing centers as given by NGIs
- **In most research areas VOs will come in many different sizes, be dynamic and temporary, and of varying geographical scope.**
  - Support should not be based on VO but on scientific area
  - The specific support should focus on applications and usage of the infrastructure and not on scientific content.
- **The use of the infrastructure and the support must be based on a peer review process**

# CSC Answers

- **Proposed SSC**
  - Coordination of Materials Science SSC
  - Participation in other SSCs as needed from a national/regional perspective
- **Scope of proposed SSC**
  - Provide and develop grid services for material science community.
  - Support on usage of the infrastructure.
  - Maintain and support applications within materials science.
  - Provide expertise in HPC and performance optimization.
  - Support applications using Message Passing Interface (MPI) on clusters and grid enabled supercomputers.



# CSC Answers (cont.)

- **Leading Organizations**
  - CSC and NDGF (coordination)
  - M-Grid (Finnish Material Science Grid) members (participation)
  - NDGF members (participation)
  - Other NGIs (participation)
- **Providers of computing resources**
  - M-Grid Sites
  - NDGF Sites
  - Potential expansion to DEISA Sites
  - Other NGI's Sites



# CSC Answers (cont.)

- **Proposed organization**
  - CSC as the representative of the Finnish NGI will have the coordinating role in collaboration with NDGF.  
(Resources and support in the Nordic will be coordinated through NDGF – already existing plans for support for Materials Science from NDGF)
- **Funding**
  - Coordination cost: Included in EGI SSC EU proposal, NDGF Material Science proposal and National funding
  - Support cost: Contribution from EU and/or participating NGIs and NDGF
- **Plans**
  - Ongoing service for M-Grid and other CSC users (and soon NDGF) to be gradually scaled up as funding and scope evolves.

