EUFORIA - EU Fusion for ITER Applications

Project objectives
Bringing a comprehensive framework and e-infrastructure to the fusion modelling community oriented to the development of ITER physics needs with particular emphasis on Grid and HPC activities

- Deployment of Grid and HPC infrastructure
- Resources: Interactive European Grid
- Adaptation and Optimization of Fusion Codes
- Platform oriented Grid and/or HPC
- Development of advanced tools for
  - Workflow management
  - Visualization tools
  - Data mining

Work plan outline

Fusion Plasma Simulation

Integration Architecture

Promoted Codes

Country | Institute | Capabilities
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SWEDEN | CHalmers University of Technology (coordinating) | Fusion, Grid, (CS)
FINLAND | CSC – Tietoturva-laitos Ltd | HPC, (CS)
| Åbo Akademi University | Code Optimization & parallelisation, CS
FRANCE | CEA – Commissariat à l’Energie atomique – Cadarache | Workflow, Fusion, CS
| Université Louis Pasteur – CEST | Visualization, Applied Math
GERMANY | Forschungszentrum Karlsruhe GmbH | Grid, Code parallelisation
| Max-Planck-Institut für Plasmaphysik – IPP | Code Optimization & parallelisation, CS
ITALY | CINEA | Fusion, Grid, HPC, GATEWAY
SLOVENIA | University of Ljubljana – LECAD | Visualization, CS
POLAND | Poznan Supercomputing and Networking Center (PSNC) | Grid, Migrating Desktop, CS
| Bialystok Supercomputing Center – Centrum Nacional de Supercomputación | Grid, Code optimization & parallelisation
| Centro de Investigaciones Energéticas Medioambientales y Tecnológicas – CEMADET | Grid, NA, HPC, Code Optimization & parallelisation
| Consejo Superior de Investigaciones Científicas – CSIC | Grid, CSS, HPC
UNITED KINGDOM | The University of Edinburgh – EPCC | Code Optimization & parallelisation, CS
| Steinbuch Centre for Computing (SCC) | Fusion, HPC, User support, (GRID)