



Enabling Grids for E-science

# Fusion SSC

*Antonio Gómez*

*Asociación Euratom/CIEMAT para Fusión*

*antonio.gomez@ciemat.es*

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[www.eu-egee.org](http://www.eu-egee.org)



- **Fusion SSC:**

- Russia: Kurchatov.
- Poland: Poznan Supercomputing and Networking Center.
- Germany: FZK, FZJ.
- Spain: CIEMAT, BIFI-UZ, IFCA.

- **OTHERS: TBD**

Moscow State University, MEPHI, MPTI, Trinity,  
 UCM(?), ENEA (?), CEA (?), NIFS-Japan (?),  
 GA-PPPL-ORNL-USA (?), CBPF-Sao Paulo-Brazil (?)

- **Intention to integrate non-EU Partners**
  - It's important to count on as much users as possible.
- **ITER and Fusion centres relationships**
  - Key for not duplicate efforts.
- **Relation with other projects/initiatives:**
  - EGI/NGI
  - PRACE
  - EDGES
  - EUFORIA
  - ITER
  - ITM
  - ...

- **NGIs: Spain, Poland, Germany, ... More?**
  - The European community well integrated in their NGIs.
  - Other countries are also on the way (Brazil, Argentina...).
- **Representatives of the involved NGIs invited to the Steering Committee.**
  - Necessary for **standardization** and coordination.
- **Coordination in common interests with other SSC.**
  - Key factor to have voice in EGI / PRACE.

- **Give support to ITER.**
- **Exploit e-infrastructures for Fusion research.**
- **Give support for the remainder of Fusion Community.**
- **Develop services useful for Fusion research (and other activities).**
- **Relations of Fusion Community with EGI/PRACE.**
- **Relations with NGIs.**
- **Attract new users.**
- **Standardisation.**
- **Relationships applications/infrastructure (NGI, PRACE), how to organize?**

- **SSC General management (Unique NA): 1 FTE**
  - General Coordination with other SSC.
  - Coordination with EGI & PRACE.
- **Dissemination and training (Unique NA): 3 FTE**
  - Conferences, All-Hands Meetings, UF, tutorials, bulletins...
  - Possibility of new (funded) incorporations to the SSC.
- **Application Identification & Support: 6 FTE**
  - Selection of suitable codes.
  - Porting of the codes.
  - Contact with code owners for exploitation.
  - Integration of a common updated repository.
  - **Data Management**
    - Multi-machine data works.
    - Multi-access to a single machine data.

- **Middleware, Tools and Services development: 7 FTE**
  - New Services and portals for friendly running applications.
  - Middleware developments.
  - Connection with NGIs for the e-infrastructure maintenance and PRACE.
  - Virtualization / Cloud Computing, GPU.
  - **Workflows**
    - Maintenance of workflow engines.
    - Plugging applications to the workflows.
    - Adoption of existing workflows tools.
    - Creation of specific workflows from scratch.
- **VO Management: 1FTE**
- **Monitoring, Resource, Frontdesk,: 2 FTE**

**PRELIMINARY ESTIMATE: 20 FTEs**

- **Leader.**
- **Steering Committee: composed by Task Force Leaders + Representative of NGIs.**
- **Task Forces.**
- **All-hands meeting.**
  
- **CONTACTS WITH OTHER SSCs:**
  - The SC is in charge of the relations.
  - Sharing developments with other SSCs (e. g. HEP).



- **Funding from EU expected.**
- **NGIs guarantee the infrastructure sustainability.**
- **Middleware: in principle the same solution as for NGIs.**
- **Funding from National Programmes.**

- **Dissemination**
- **Grid+HPC Conferences & Publications.**
- **Fusion conferences: EPS, IAEA, SW, ...**
- **Fusion Journals.**
- **Other communities? Call for New Communities-Applications-Partners.**
- **Volunteer computing as a tool for General Public dissemination.**
- **Tutorials and training/users material.**
- **General Services (management): web, mailing list.**

- **First talks in Catania EGEE UF.**
- **Contacts during this time.**
- **Composition by September.**
- **Ready for September call.**
- **Meeting during EGEE09.**
- **READY TO GO BY THE END OF 2009.**
- **Kick off Meeting in the beginning of 2010.**