



Access to HPC resources in Italy and Europe

Paola Alberigo
p.alberigo@ Cineca.it
SuperComputing Applications and Innovation Department

Access to HPC resources: CINECA aims and basic principles



Our objectives:

- ✓ Providing Italian and European researchers with an advanced computational environment
- ✓ Supporting Italian researcher for increasing their competitiveness
- ✓ Following Italian researchers in their path towards Tier 0
- ✓ Soliciting large-scale and computationally intensive projects

Basic principles:

- ✓ Transparency
- ✓ Fairness
- ✓ Conflict of Interest management
- ✓ Confidentiality

L'offerta HPC



L'offerta HPC in Italia



HPC offer in Italy: ISCRA Italian SuperComputing Resource Allocation



The aim of ISCRA is to ensure adequate support to Italian scientists and engineers.

The allocation is of 200M core hours per year on

- FERMI

The access is by

- Online submission of proposals
- Peer-review process by an international panel

The proposal are scientifically evaluated by international reviewers and technically evaluated by Cineca experts.

Applications and codes are evaluated on the basis of their computational readiness.

Class B: Standard Projects; two calls / year
1M < core hours < 10M
typical request 5M core hours
duration: 12 months

Next call is foreseen in summer period 2014.

Class C:

Small Projects

continuous submission, 2 selection per year

>50.000 core hours

typical request 1M on FERMI – **Temporarily suspended**

typical request 50.000 on EURORA

only one C project approved per year

duration: 9 months

Trial:

on demand

Call for Projects B

- **Next deadline September 2014**

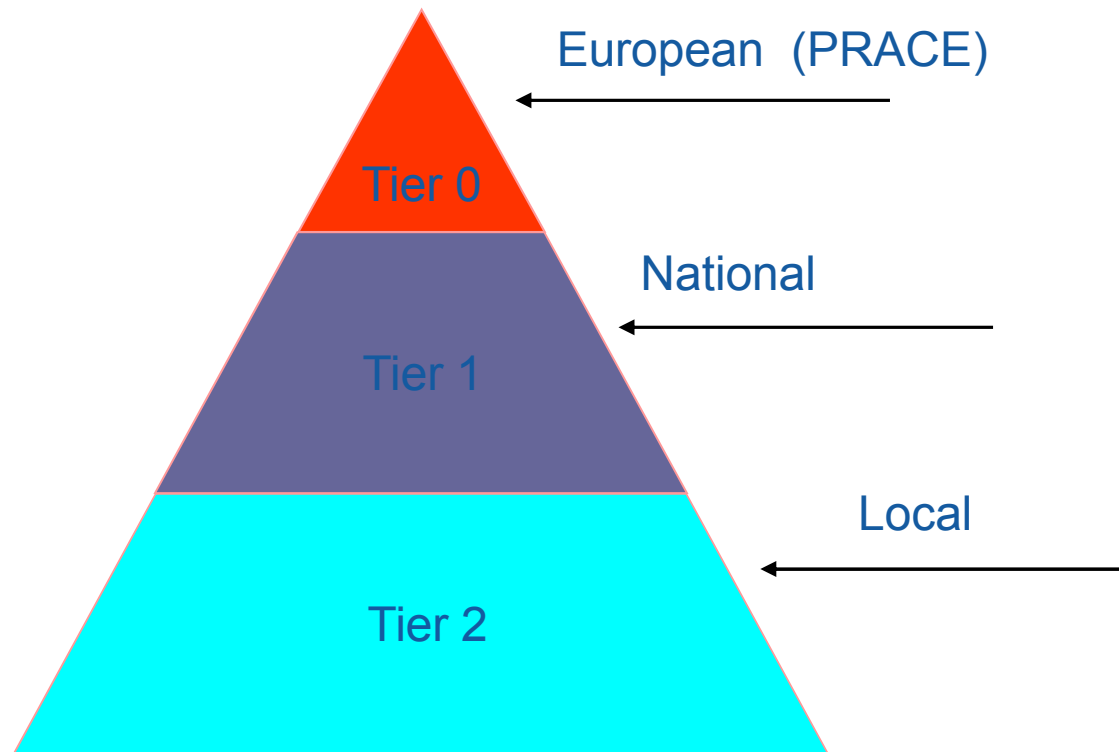
Call for Projects C

- **continuously open, evaluation every month**
- **next evaluation on 15 April 2014**

L'offerta HPC in Europa: PRACE



Computing provisioning pyramid



PRACE offers access to Tier 0 (and Tier 1) systems



- **Preparatory Access**

- Intended for preliminary resource use required to prepare proposals for Project Access
- Technical review

- **Project Access**

- Intended for individual researchers and research groups including multi-national research groups
- Technical and Scientific review

PRACE Tier 0 Access: CURRENT CALL



- Applications accepted on call
- For projects which use codes that have been previously tested and must have demonstrated high scalability and optimisation
- Next call
 - **Closing: March 25th, 2014, 12:00 CEST**
 - Access starting date: September, 2014
- Final report mandatory after the end of the access



Call for Proposals for 9^o PRACE Project Access (Tier-0)

- “FERMI” (CINECA, Italy) IBM Blue Gene/Q
- “JUQUEEN” (GCS@Jülich, Germany) IBM Blue Gene/Q
- “CURIE” (GENCI@CEA, France) Bull x
- “HERMIT” (GCS@HLRS, Germany) Cray X6E
- “SuperMUC” (GCS@LRZ, Germany) IBM System x iDataPlex
- “MareNostrum” (BSC, Spain) IBM System X iDataplex

About 1.300M core hours available

- <http://www.prace-project.eu/>
 - <http://www.prace-project.eu/PRACE-Project-Access?lang=en>
 - http://www.prace-project.eu/IMG/pdf/prace_call9_terms_of_reference_final.pdf
 - http://www.prace-project.eu/IMG/pdf/technical_guidelines_for_applicant_call9-final.pdf
-

Projects dimension



typ 20K

typ 1M

typ 5M

typ 10-70M



Useful links



- ISCRA: <http://www.hpc.cineca.it/services/iscra>
- PRACE: www.prace-ri.eu/hpc-access?lang=en
- p.alberigo@cinca.it iscra@cinca.it