Access to HPC resources in Italy and Europe

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Access to HPC resources: CINECA aims and basic principles

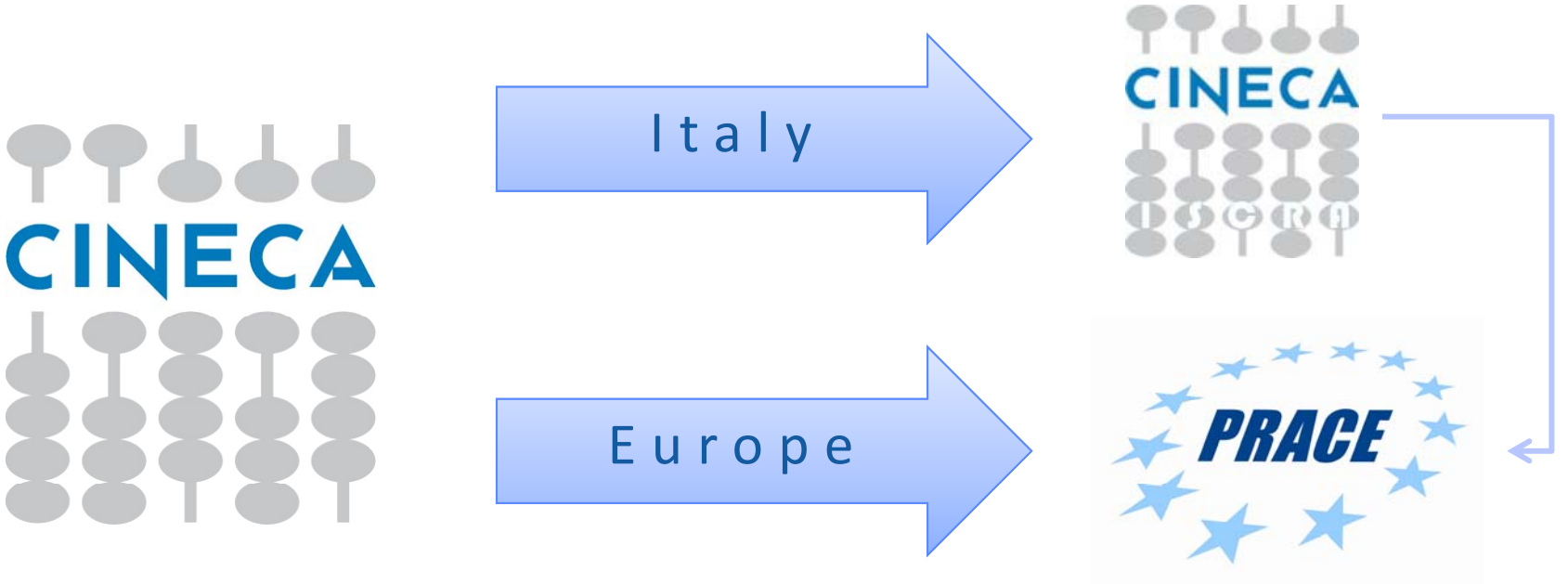
Our objectives:

- ✓ 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 will be: 15 June - 17 July.

HPC offer in Italy: ISCRA

Class C: Small Projects

continuous submission, 2 selection per year

>50.000 core hours

typical request 1M on FERMI

typical request 200.000 on GALILEO

PICO: bioinformatics domain or
data visualization and post-processing

only one C project approved per year

duration: 9 months

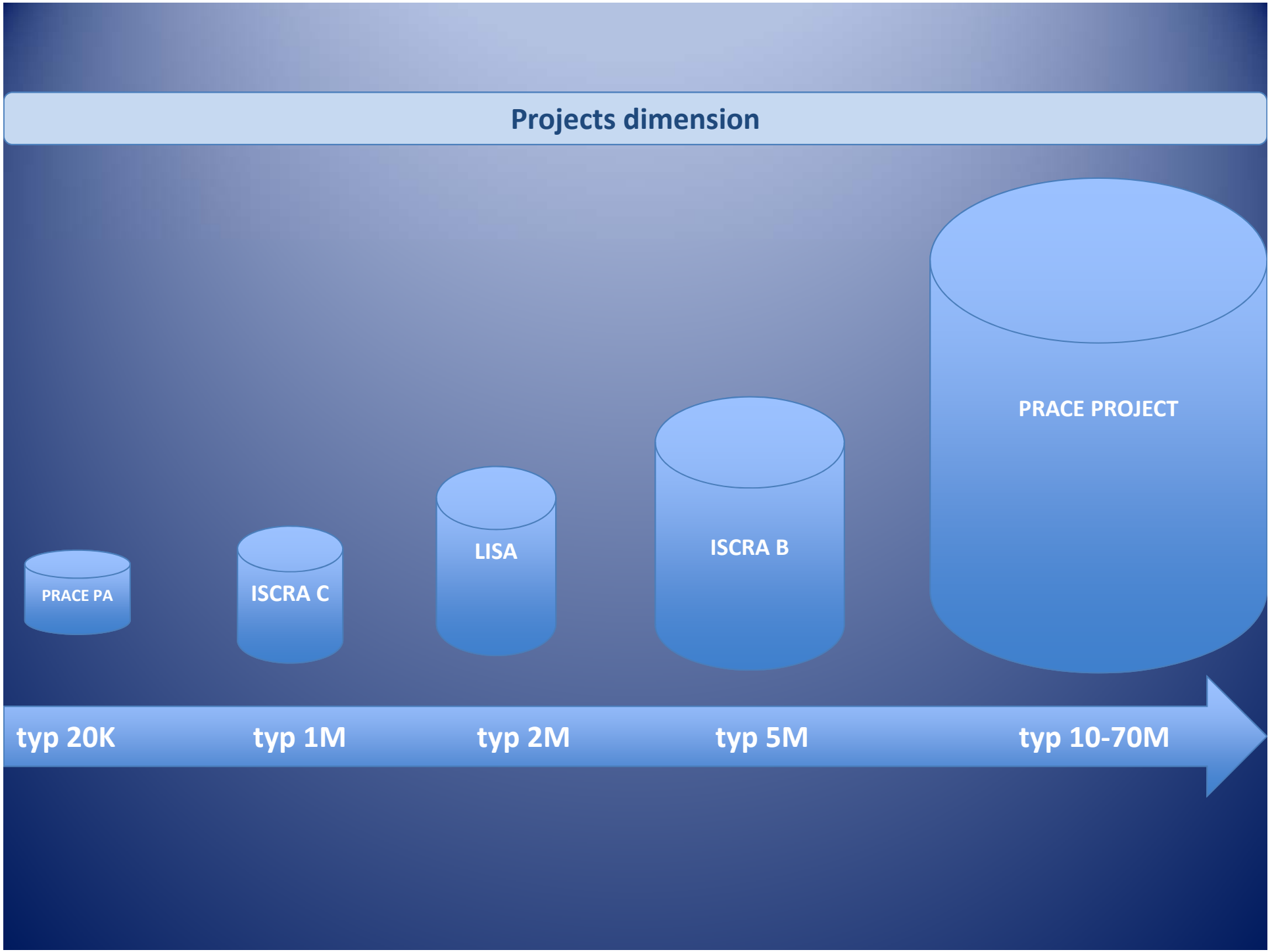
Trial: on demand

Call for Projects B

- Next Scientific Committee October 2015
- Next deadline 17 July 2015

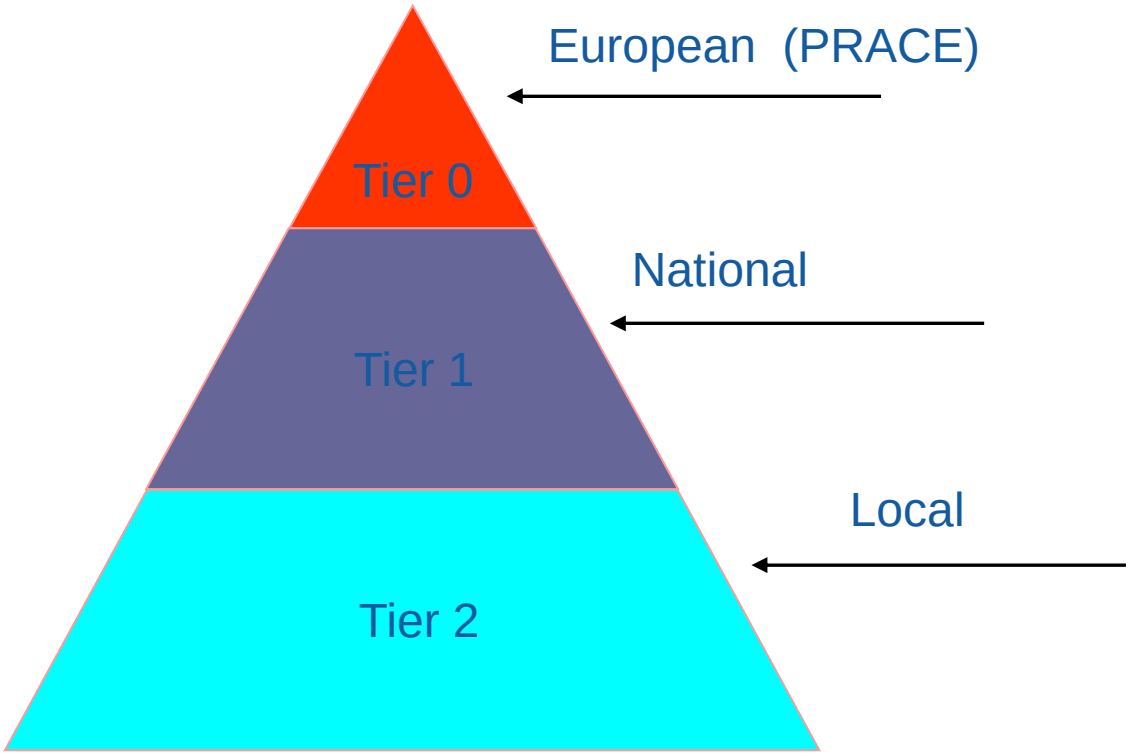
Call for Projects C

- continuously open, evaluation every month
- next evaluation after 15 July 2015


Projects dimension
PRACE PA
ISCRA C
LISA
ISCRA B
PRACE PROJECT
typ 20K
typ 1M
typ 2M
typ 5M
typ 10-70M

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
  - **Opening: September, 2015**
- Final report mandatory after the end of the access

Resources available in PRACE (Tier-0)

- “FERMI” (CINECA, Italy) IBM Blue Gene/Q
- “MareNostrum” (BSC, Spain) IBM System X iDataplex

- “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

Useful links

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