



21 October 2019 | Brussels |

Workshop on EuroHPC Systems Access Policy



**EuroHPC**  
Joint Undertaking

# EuroHPC INFRAG Access Policy Group Recommendations

Sergi Girona – INFRAG member

# Rationale

- Articles 13(5-8) and 14 of the EuroHPC JU regulation 1 indicates how the Governing Board shall define the access rights to the Union's share of the available time on the pre-exascale supercomputers and petascale supercomputers and to the Union's share of available time on national supercomputers. The INFRAG, as part of the Industrial and Scientific Advisory Board, is analysing different strategies/policies and will present to the Executive Director and Governing Board the corresponding recommendations.

# Working methodology

- The INFRAE has created a working group to prepare these recommendations. The working group is composed of six members of the INFRAE, external experts from PRACE, including PRACE aisbl and PRACE Hosting Members, and adequate representation of users and user communities, including industry.
- The objective is to provide a recommendation before end of November 2019, to permit adequate time for approval by the GB, publication and start of the implementation. This deadline is set to allow users to access the systems as soon as they become available.
- The working group will organize one open day and/or open consultation, to present the findings and the directions of the proposal. This will allow all users, communities, and stakeholders to comment and contribute to the final proposal.
- The final proposal will be presented to the INFRAE for validation prior to submission to the GB.

# EuroHPC INFRAAG Access Policy WG composition

INFRAAG representation	
Branislav Jansik	IT4Innovations
Claus Axel Muller	GCS
Evangelos Floros	EC
Lene Krøl Andersen	eScience Center
Minna Palmroth	Uni. Helsinki
Sergi Girona	BSC
Sinead Ryan	TCD

Duarte Boba	EuroFusion
Enric Gibert	Pharmacelera
Kenneth Ruud	University of Trømso
Lee Margetts	NAFEMS
Marc Baaden	CNRS
Maria Girone	CERN
Philipp Hennig	MPG
Serge Bogaerts	PRACE aisbl
Stephane Requena	GENCI
Sylvie Joussame	CNRS
Vicente Navarro	ESA
Wolfgang Schröder	RWTH Aachen University

# Access policy for Open R&D

- The scope of the recommendations will be limited to Open R&D for academia and industry
  - Free at the point of usage
  - Information of the economical value of the awarded accesses
- Access policy for commercial use may be part of a different recommendation document
- The European HPC ecosystem, including European and national programmes should align to optimize the resources utilization

# Special Access / Urgent computing

- Emergencies and crisis management
  - Floods, earthquake, pollution, spread of diseases, ...
- Adequate definition and protocols of the urgent computing case, including:
  - Technical readiness of user and centre shall be ascertained initially and regularly updated/tested
  - Automatic triggering of emergency
- Considerations
  - Preemptive computing may be required
  - Expected time window of emergency/crisis is short
  - In case of emergency, users should be able to use their complete allocations
  - Periodical scientific and technical review required
  - Access reserved only for governments (or public administration having delegation)

# Special Access / Strategic Projects

- Including Communities and large scale instruments (ESFRIs)
- Possible definition
  - A group of researchers with a long term project that requires guaranteed access to compute resources
- EuroHPC Governing Board should establish rules to identify, select strategic projects and fix the resources
- Why should this category exist?
  - International/European agreements and obligations
- Running projects on this category should also be peer reviewed to guarantee the quality

# Evaluation Criteria

- Differentiate two tracks: science and industry
  - Clear identification of cooperation between industry and academia, to avoid double window for the same project
- Science
  - Academic Excellence
    - Including solving scientific puzzles not requiring innovation or breakthroughs
    - All disciplines of science competing for the same resources, no pre-established quotas
      - It is necessary to identify the standards of academic excellence for each discipline at any point of time
    - Adequate support/resources should be accessible to enable teams or science domains to reach the required excellence
- Industry
  - Open R&D to support innovation
  - Excludes commercial use
- Science and Industry
  - Technological feasibility and readiness
    - Both Capacity and Capability to achieve excellence
    - Technical requirements
      - Adequate balance between need for improvement and real gain
  - DMP (Data Management Plan) required, including description of embargo period



# Evaluation method

- Anonymous peer reviewers
  - Specialized by expertise
- Public composition of the review committee
  - With anonymous and open discussion
  - With adequate coverage on academia and industry, respectively
- Benefit from the positive experience of PRACE Access Committee and PRACE administrative support

# Type and duration of access (1/2)

- Standard access
  - Science
    - Call every 6 or 8 months
    - Multiyear access, with guaranteed resources over the years
  - Industry
    - Call synchronized with science calls or Calls every 4 months
- Benchmarking access
  - To collect required technical data to apply for standard access
  - Call always open
  - Limited resources, up to 2 months access
  - Technical review of the benchmarking plan required
  - Comprehensive technical support from the center

# Type and duration of access (2/2)

- Preparatory Access
  - For code development, porting, enabling to new hardware and software, scaling, performance improvement
  - Applicable for Centers of Excellence, Urgent Computing (preparation phase), new communities/group at HPC, ...
  - Call open continuously
  - Limited resources, but enough for real executions
  - Duration of the access: from 2 months access to one year (extendible)
  - Technical and scientific review required
    - At a different level than standard access
  - Technical support and High level support required

# Resources

- Requirements on Compute, Memory, Storage, Data Transfer
  - Some included in DMP
- Typical allocations conditions
  - Large allocations
    - Applicable to standard access
    - Well described access to resources, and in most cases, uniform utilization of compute allocation
  - Small allocations
    - Applicable to any access type
    - As much as possible, elastic access to resources
  - Interactive computing
    - Applicable to any access type, but with limited resources
    - High impact on HPC full performance
- Limit for allocations
  - Should a single project obtain more than X% of available resources?
  - Is there a lower limit for resource allocation for the EuroHPC systems?

# Obligations of the awarded users

- Citations in papers, presentations, conferences, ...
- Ready to accept invitations to conferences organized by the European HPC Ecosystem
  - EuroHPC summit week
  - Trainings
  - COE, Competence Centers.
- Data sets available after embargo period. Program availability is welcomed.
- Follow-up documentation of the outcome of the project
- Public white-paper is the minimum requirement

# KPIs and Access Policy

- Science: publications, citations, data downloads,...
  - Targets defined in terms of scientific community
- Industry: publications, citations, patents, IP, ...
- Follow of the projects outcome
- Indicators on newly attracted users and communities

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Round table

Remote questions can be address to [claus-axel.mueller@gauss-centre.eu](mailto:claus-axel.mueller@gauss-centre.eu)