Access Possibilities for AI projects on EuroHPC JU Systems

September 2024

EuroHPC Joint Undertaking

- …is an EU body & a legal and funding entity based in Luxembourg
- Created in 2018 and autonomous since September 2020

OUR MISSION

- Develop, deploy, extend & maintain a world-leading supercomputing, quantum computing, service & data infrastructure ecosystem in Europe
- Develop and operate AI factories in support to the further development of a highly competitive and innovative AI ecosystem in the Union.
- Support the development of innovative supercomputing components, technologies, knowledge & applications to underpin a competitive European supply chain
- Widen the use of HPC, AI & quantum infrastructures to a large number of public & private users wherever they are located in Europe and supporting the development of key HPC skills for European science and industry

OUR MEMBERS

EuroHPC Joint Undertaking

- 35 participating countries
- The European Union (represented by European Commission)
- 3 private partners

Each of our members is represented in the EuroHPC JU's Governing Board

The Governing Board takes advice from the EuroHPC Industrial and Scientific Advisory Board (INFRAG & RIAG)

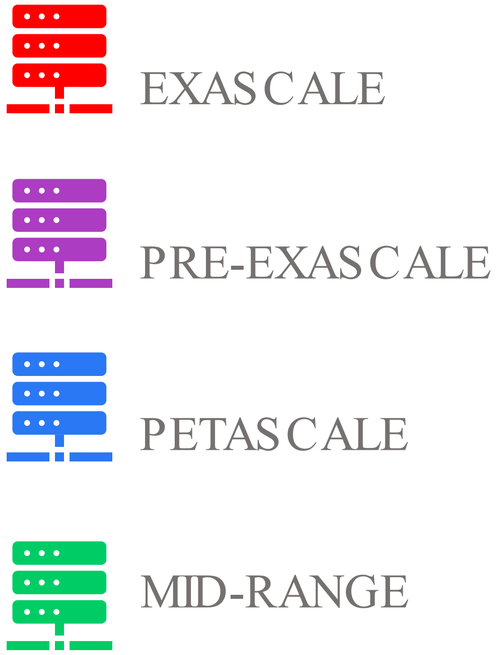
BDV BIG DATA VALUE ASSOCIATION

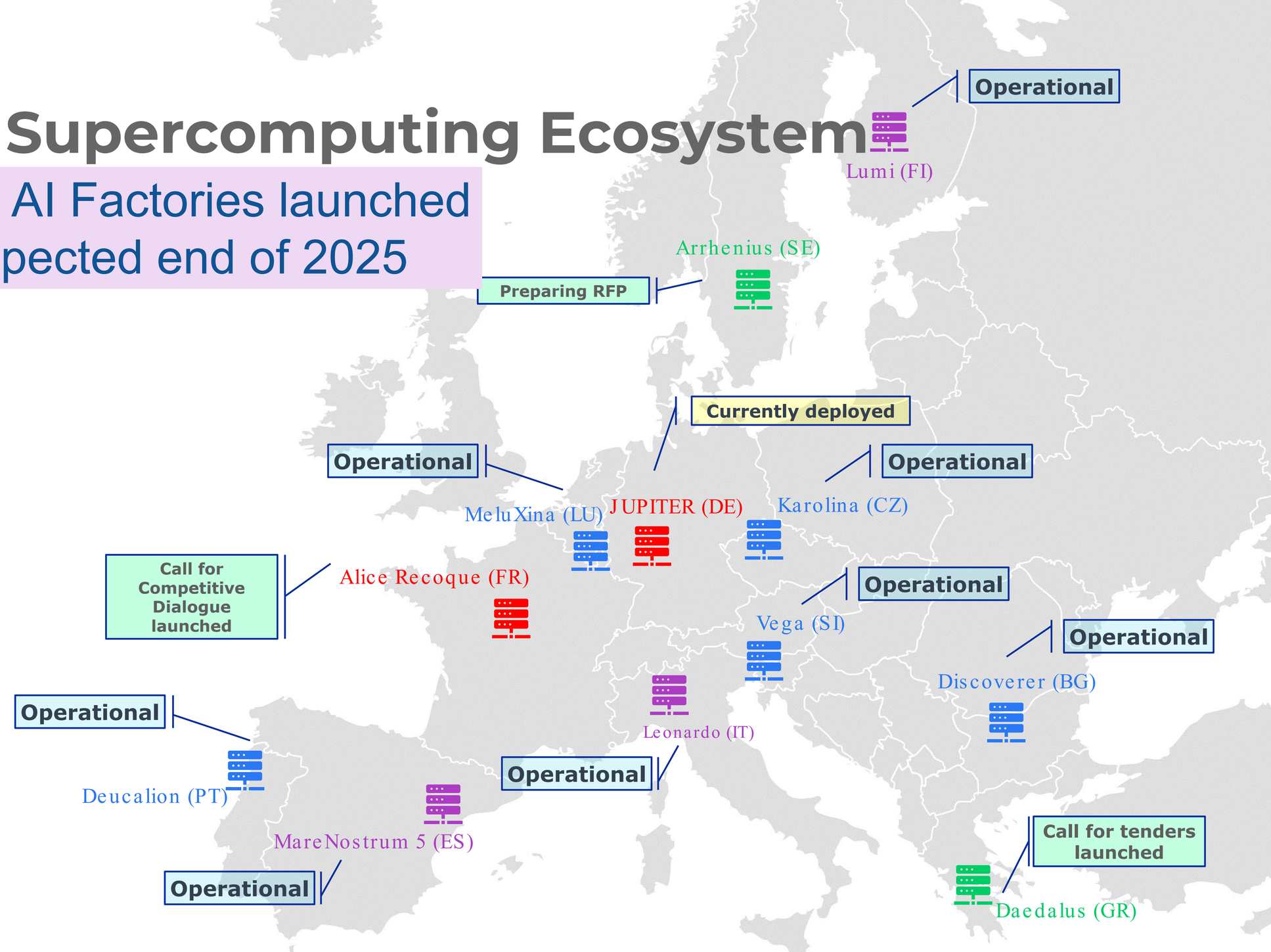
QUIC European Quantum Industry Consortium

ETP 4 HPC EUROPEAN TECHNOLOGY PLATFORM FOR HIGH PERFORMANCE COMPUTING

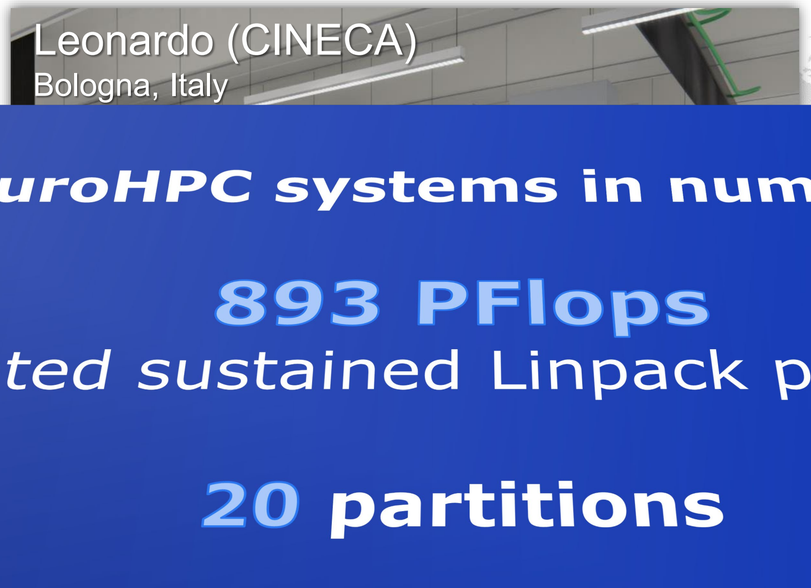
The EuroHPC Supercomputing Ecosystem

Call for selection of AI Factories launched
First systems expected end of 2025





Available EuroHPC supercomputers



EuroHPC systems in numbers

893 PFlops
Aggregated sustained Linpack performance

20 partitions

15597 *CPU Nodes* (AMD/Intel x86 and Fujitsu ARM)
7869 GPU Nodes
43476 *GPUs* (*NVidia A100/H100, AMD MI250X*)

Other: FPGA, Visualisation and Cloud capabilities

ACCESS TO EUROHPC SUPERCOMPUTERS

WHO IS ELIGIBLE?

- Academic and research institutions (public and private)
- Public sector organisations
- Industrial enterprises and SMEs
- Established in the EU or H2020 associated countries

→ Open to all fields of science and industry

WHICH TYPES OF ACCESS EXIST?

- Multiple access modes to serve different demands and application areas.
- **90 million node hours** per year across all EuroHPC systems
- Defined in the EuroHPC Access Policy approved by the JU Governing Board.

WHAT ARE THE CONDITIONS FOR ACCESS?

Access is free of charge. Participation conditions depend on the specific access call that a research group has applied to.

In general users of EuroHPC systems commit to:

- use computing resources primarily for research and innovation (with exception for SMEs and startups)
- acknowledge the use of the resources in their related publications
- contribute to dissemination events
- produce and submit a report after completion of a resource allocation

More info: https://eurohpc-ju.europa.eu/access-our-supercomputers_en

EuroHPC Access opportunities

Calls for preparatory activities

BENCHMARK ACCESS CALL

- For scaling tests & benchmarks

- Fixed amount of allocation for 2 or 3 months

- Continuously open with monthly cut-offs

- Results and access to system: 2 weeks from cut-off date

DEVELOPMENT ACCESS CALL

- For code and algorithm development

- Fixed amount of allocation for 6 or 12 months

- Continuously open with monthly cut-offs

- Results and access to system: 2 weeks from cut-off date

Calls for production activities

REGULAR ACCESS CALL

- For projects that require large-scale HPC resources

- Allocation duration: for 12 months

- Continuously open with 2 cut-offs per year

- Peer-review process duration: 4 months

EXTREME SCALE ACCESS CALL

- For high-impact, high-gain projects that require extremely large-scale HPC resources

- Allocation duration: for 12 months

- Continuously open with 2 cut-offs per year

- Peer review process duration: 6 months

AI AND DATA INTENSIVE APPLICATIONS ACCESS CALL

- For projects intending to perform artificial intelligence and data-intensive activities

- Fixed allocation for 12 months on first-arrived-first basis

- Bimonthly cut-offs (6 per year)

- Peer-review process duration: 1 month

AI AND DATA INTENSIVE APPLICATIONS ACCESS CONCEPT and GOALS

Fast-track, simplified process for peer-review evaluation

Peer-review process duration: 1 month

Bi-monthly cut-offs

No ranking | First come first serve approach

Proposals scientifically reviewed by 2 experts. No consensus or panel meetings.

Scores above threshold are allocated resources.

Pre-fixed amount of node-hours per GPU partition.

12 month allocations.

AI AND DATA INTENSIVE APPLICATIONS ACCESS

PEER-REVIEW PROCESS

Evaluation criteria:

- Excellence
- Innovation and Impact
- Quality and Efficiency of the Implementation

Scoring system:

- Grade 0-5 per criterium
- Minimum grade per criterium – 3
- Overall grade sum 0-15
- Overall grade sum minimum - 10

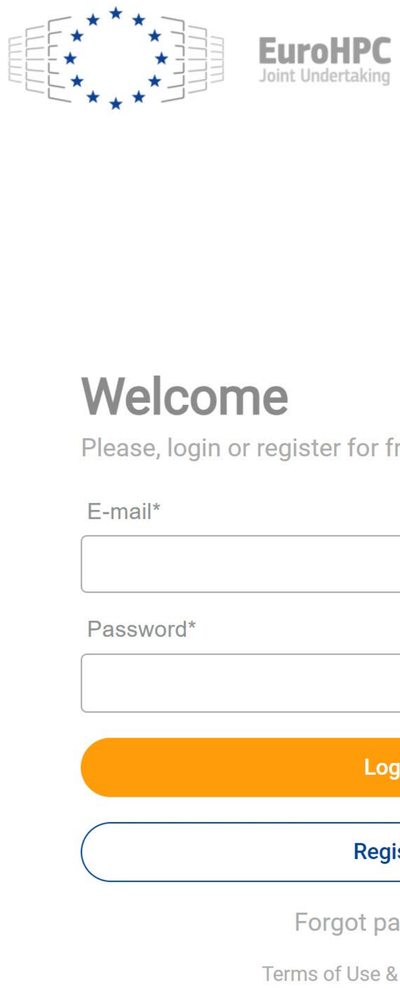
AI AND DATA INTENSIVE APPLICATIONS ACCESS

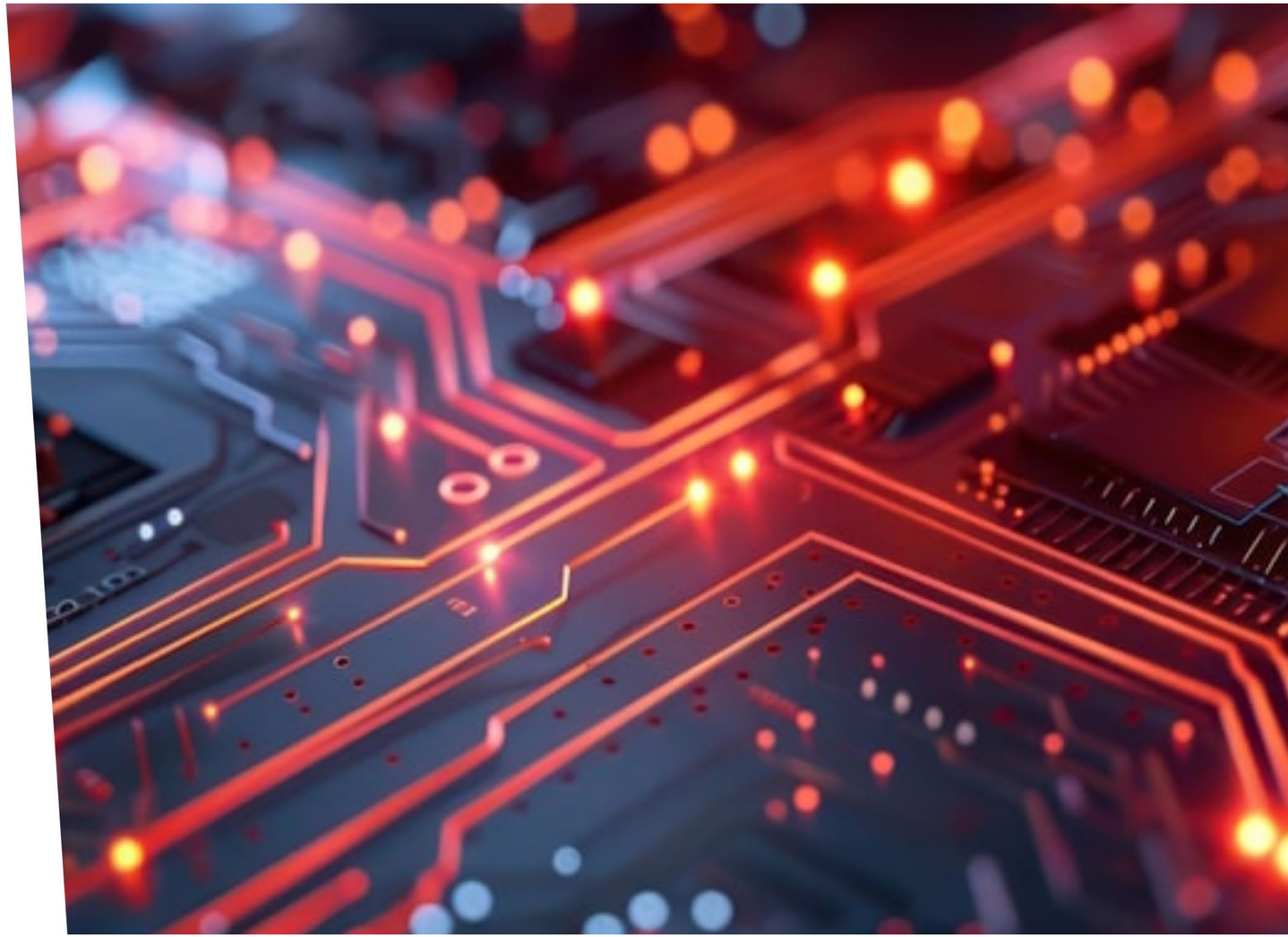
Offered node hours per partition

Per cut-off	Vega GPU	MeluXina GPU	Karolina GPU	LUMI-G	Leonardo Booster	MareNostrum 5 ACC	TOTAL
Total Offer (node hours)	7 100	25 000	7 500	351 455	545 865	129 377	1 065 918
Fixed allocation (node hours)	7 100	25 000	7 500	35 000	50 000	32 000	

1 million node hours awarded so far via the AI and Data Intensive Applications Access **calls**

Application submission portal





https://access.eurohpc-ju.europa.eu (currently migrating from old web address)

Questions on access calls: access@eurohpc-ju.europa.eu

EPICURE

Unlocking European-level HPC Support

High-level Specialised Application Support Service in High-Performance Computing

Code enablement and scaling

Support for enabling and increase the scalability of user codes to EuroHPC supercomputers

Performance Analysis

Support for enabling and increase the scalability of user codes to EuroHPC supercomputers

Benchmarking

Support for enabling and increase the scalability of user codes to EuroHPC supercomputers

Code refactoring

Support for enabling and increase the scalability of user codes to EuroHPC supercomputers

Code optimization

Support for enabling and increase the scalability of user codes to EuroHPC supercomputers

Process for applying access to EuroHPC Systems and request assistance from EPICURE:

1. Check the open EuroHPC Access Calls on the EuroHPC Joint Undertaking website.
2. Submit an application for access time on EuroHPC Supercomputers through open EuroHPC Access Calls.
3. When applying for resources through EuroHPC Calls you will find also the following dedicated form to request support from EPICURE. Fill it in as comprehensively as possible when applying through EuroHPC Access Calls. Click here to see the preview of the form. Note that this form should be filled in only as part of the call application through EuroHPC JU website.
4. Find out full information how to access to EuroHPC Systems and request assistance from EPICURE.

https://epicure-hpc.eu/

Thank you!

Keep up with EuroHPC news:

https://eurohpc-ju.europa.eu

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