EuroHPC JU AI Factories Access Calls for Industrial Innovation

Terms of Reference

Introduction

The EuroHPC Joint Undertaking (JU) enables the coordination of efforts and the sharing of EuroHPC resources with the objective of deploying a world-class High Performance Computing (HPC) infrastructure and a competitive innovation ecosystem in supercomputing technologies, applications, and skills in Europe.

Following the 2024/1732 amendment of to the EuroHPC Regulation[1], the Joint Undertaking has been tasked with the strategic goal to establish AI Factories across Europe. These AI Factories will build around AI-optimised supercomputers, offering computing resources as well as support services to the European industry for the exploitation of AI technology capabilities in the Union, for the development of skills and knowledge in the domain of AI. The Joint Undertaking manages the Union's access time of the AI factories. Access time is allocated according to the principles stated in the Article 16(2) of the EuroHPC JU Council Regulation[2] via different access modes, Large Scale, Fast Lane and Playground Access described further below.

The proposals submission is done via the Peer-Review portal available at https://access.eurohpc-ju.europa.eu.

Further details on the standard application procedure can be found EuroHPC JU Call for Proposals for AI Factories access calls webpage.

[1] Council Regulation (EU) 2024/1732 of 17 June 2024 amending Regulation (EU) 2021/1173 as regards a EuroHPC initiative for start-ups in order to boost European leadership in trustworthy artificial intelligence

[2] Council Regulation (EU) 2021/1173 of 13 July 2021 establishing the European High Performance Computing Joint Undertaking (OJ L 256, 19.07.2021, p. 3–51)

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1 Scope of the EuroHPC JU AI Factories Access Calls

The AI Factories Access modes for Industrial Innovation aim to support ethical Artificial Intelligence, Machine Learning, with a particular focus on Foundation Models and Generative AI (e.g. Large Language Models).

1.1 Large Scale Access Mode

The call is continuously open with predefined cut-off dates (2 per month) that trigger the evaluation of the proposals submitted.
Large Scale Access call is intended for applications performing AI activities with high-impact, high-gain innovative research, justifying the need for and the capacity to use **large allocations** in terms of compute time, data storage and support services.
The allocations are granted for a period of **three (3), six (6) or twelve (12) months**, depending on the duration needs. Applicants (Principal Investigators) can, in principle, have only one Large Scale application awarded at any given time. However, awards of additional ranked projects of the same Principal Investigator are still possible if time is still available in the given call. Innovation and Impact of the application will be the decisive factors of the final allocation decision.

Resources can be requested on a single system only. Amounts of resources that can be granted have limited minimum and maximum values in terms of GPU hours per application. The applicants should respect the minimum request for each system listed in the Call text; **proposals that do not respect the minimum request will be administratively rejected**. The resources thresholds can be found on the Large Scale Access mode website.

For applying to Large Scale Access it is recommended that the target production codes are tested in the requested AI Factory using the Playground Access. Following the recommendation of the AI Factory Industrial Innovation Group and availability of resources, proposals may either be awarded in their entirety, may be awarded with a reduced scope, or may be rejected with a justification.
The need for EuroHPC JU systems computing performance must be clearly presented in the proposal.

Applicants must submit a an online application demonstrating:

- the relevance of the application to the call, including;
- the significant impact of the expected results;
- that their application requires the use of large allocations - both in terms of compute and data storage resources- to reach the objective of their application; and
- that the methods, software, and tools are technically adapted to efficiently use the target AI Factory thereby demonstrating the feasibility of the project. Applications should clearly explain why the work cannot be performed on a smaller HPC system. To this end, applicants may rely on technical data collected via Playground Access.

- a clear project plan, with an adequate time schedule of the expected resource consumption during the lifetime of the project ;
- ethical AI by completing an ethic self-assessment form.

Applicants may also submit a continuation proposal in the Large Scale Access call to extend research previously conducted on the EuroHPC JU systems. Continuation proposals are submitted via online form in the peer-Review Platform by selecting the "continuation" option under "type of submission". For such projects, in addition to filling the online application form, applicants must upload either a Progress or a Final Report (depending on the status of the previous project). The templates for the Progress and Final Reports are available online in the call's Documents section.

1.2 Fast Lane Access Mode

The call is continuously open with no cut-off dates. Submission of the proposals trigger the evaluation which is done on rolling basis.
Fast Lane Access call is intended for HPC-ready users and applications performing AI activities having innovative aspects needing medium size allocations (up to 50.000 GPU hours).
The allocations are granted for a period of **one (1), two (2) or three (3) months**, depending on the duration needs. Applicants (Principal Investigators) can, in principle, have only one Fast Lane application awarded at any given time. However, awards of additional projects of the same Principal Investigator are still possible if time is still available in the given call.

Resources can be requested on a single system only. Amounts of resources that can be granted are limited in terms of GPU hours per application. The resources thresholds can be found on the Fast Lane Access mode website.

1.3 Playground Access Mode

The call is continuously open with no cut-off dates. Submission of the proposals trigger the evaluation which is done on rolling basis.
Playground Access call is intended for entry-level users and applications performing AI activities needing small size allocations.
The allocations are granted for a period of **one (1), two (2) or three (3) months**, depending on the duration needs. Applicants (Principal Investigators) can, in principle, have only one Playground application awarded at any given time. However, awards of additional projects of the same Principal Investigator are still possible if time is still available in the given call. Innovation of the application will be the decisive factor of the final allocation decision.

Resources can be requested on a single system only. Amounts of resources that can be granted are limited with predefined fixed values in terms of GPU hours per application. The resources thresholds can be found on the Playground Access website.

1.4 Common requirements across all access modes

Project results:

- In order to support industrial innovation, generated data and models remain under the ownership of the user. SMEs and Startups may use the outcome of these allocations for commercial exploitation.
- The applicants commit to publish the results (except for the parts covered by confidentiality, if any) and reference EuroHPC JU and the related AI Factory.
- The applicants commit to provide a Final Report three (3) months after the end allocation date.

Projects not covered under the AI Factories Industrial Innovation Access modes:

- Proposals aiming oriented on scientific research that perform AI activities should be submitted via the AI for Science and Collaborative EU Projects call.

2 Eligibility criteria

Applicants affiliated to organizations belonging to industry; commercial companies, Small to Medium Enterprises (SMEs), and startups are eligible to apply as long as:

a) The organization is established or located in a Member State or in a third country associated to **Horizon 2020** for accessing the supercomputers acquired by the EuroHPC Joint Undertaking established by Regulation (EU) 2018/1488.[3]
b) The organization is established or located in a Member State or in a third country associated to the **Digital Europe Programme** or to **Horizon Europe** for accessing the supercomputers acquired by the EuroHPC Joint Undertaking after 2020.[4]
c) the Principal Investigator has an employment contract in the organisation at the time of proposal submission and valid for at least 3 months after the end of the allocation period;
d) the Principal Investigator has to be affiliated with an industry organization; commercial company, SME or a startup; and

[3] AI Factories covered by the Horizon 2020 Programme – LUMI, MareNostrum 5, Leonardo, Vega, MeluXina, Discoverer
[4] AI Factories covered under the Digital Europe Programme – JUPITER

e) for what concerns access to commercial companies and Small and Medium Enterprises (SMEs), the relevant Horizon 2020 rules of participation shall be applied.

The status of the organization will need to be proven by providing the valid organization **VAT number** and, if applicable, the **Participant Identification Code (PIC)**. In case that the company does not have a validated PIC number, it can be registered via the **EU Funding & Tenders Portal**.

Only proposals with civilian purpose will be eligible to participate in EuroHPC JU calls for proposals. Only proposals complying with the **AI Act**[5] will be eligible to participate in the EuroHPC JU calls for proposals.
Double-awarding is not allowed; proposals already granted resources as part of the EuroHPC JU Access calls, and currently running, will be rejected.
Only proposals written in English will be eligible.

3 Award criteria, scores and weighting

3.1 Playground and Fast Lane Access modes

Proposals submitted to the Playground or Fast Lane Access modes will undergo an eligibility check and technical assessment and will be granted access based on their technical capability.

3.2 Large Scale Access mode

Proposals submitted to the Large Scale Access mode will in addition to the eligibility check and technical assessment be subject to an expert evaluation and Industrial Innovation Group ranking performed by the requested AI Factory.
Proposals will be evaluated by experts, based on the award criteria of 'innovation' and 'impact'. In detail, the following aspects are considered during the evaluation for each evaluation criterion:

a) Innovation

This criterion intends to assess the innovative nature of the project. It evaluates to what extent the proposed work is beyond the state of the art, and demonstrates innovation potential (e.g., ground-breaking objectives, novel concepts and approaches, new products, services or business and organizational models). The following dimensions are considered:

- Originality and novelty of the objectives;
- Innovative nature of the proposed project;

b) Impact

[5] Regulation (EU) 2024/1689 - https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1689

This criterion intends to assess the potential impacts and contributions of the project. It evaluates to what extent the proposed work contributes to the advancement to the state-of-the-art. The following dimensions are considered:

- Impact of the project results on the societal, economic and/or technological dimensions.
- Contribution of the project to the advancement of the state-of the art.

Applications of EIC accelerator challenge awards are passed without further evaluation and have priority over the rest of the proposals submitted within the same cut-off period.

3.2.1 Scoring principles and weighting

Experts score each award criterion on a scale from 0 to 5 (half-point scores may be given):

0 - Proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
1 - Poor. The criterion is inadequately addressed or there are serious inherent weaknesses.
2 - Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.
3 - Good. The proposal addresses the criterion well, but a number of shortcomings are present.
4 - Very good. The proposal addresses the criterion very well, but a small number of shortcomings are present.
5 - Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

As two criterions are taken in to consideration, the maximum overall score is 10. The minimum threshold for each criterion is 3 and the overall threshold for the sum of all criteria is 6. All criteria are equally weighted (1.0).

4 Terms of access

The Principal Investigator shall lead the project and is expected to be an essential participant in its implementation. The PI will have the overall responsibility for the management of the project and interactions with EuroHPC JU. The applicants should make sure that the contact details for the PI are consistent in the different forms to be completed and that all e-mail addresses used are professional e-mail addresses.

The usage of EuroHPC JU resources needs to be acknowledged for all data produced through EuroHPC JU allocations, both in publications and when depositing the data to other infrastructures.

The PI commits to:

a) **Provide** to EuroHPC JU a **final report within 3 months** of the completion of an allocation, using the proper EuroHPC JU template, with the results obtained through the access to the EuroHPC JU systems, as well as qualitative feedback on the use of the resources.
b) **Acknowledge** the role of the AI Factory and EuroHPC JU in all publications which include the results above mentioned. Users shall use the following wording in such acknowledgement in all such papers and other publications:

"We acknowledge EuroHPC JU for awarding the project ID EHPC-XX-XXXXXXX-XXX access to *[resources on partition name hosted by site]*"

Use as many instances of the pattern *[resources on partition name hosted by site]* as the number of systems awarded via EuroHPC JU.

Respecting the words in bold above is particularly important since EuroHPC JU will use this word pattern when searching for bibliographic references in articles. In case additional resources have been used, the acknowledgement should include a clear breakdown of which part of the work was performed using EuroHPC JU resources.

c) **Allow** EuroHPC JU to publish the report mentioned in section (a) above after one year from the termination of the allocation period.
d) **Contribute** to EuroHPC JU dissemination activities and other EuroHPC JU events. Selected awardees are expected to contribute to and attend such events at least once over the two-year period, starting from the end of the allocation period. Awardees will also be expected to reply favourably, when asked to be interviewed for EuroHPC JU publications and/or send visualizations or other materials for promotional purposes.

Access to EuroHPC JU resources is for is free of charge provided that the eligibility criteria and terms of access described herein and in the online Application Form are fulfilled/respected. If this differs from the terms of access that the relevant AI Factory may have in place, it is the terms of access of the relevant Hosting Entity that will prevail.

Users will not hold liable EuroHPC JU or the relevant AI Factory, including their Directors and staff, with regard to any claim and expense arising out of the use of the resources.

From the start to the end of the access period, the applicant should direct questions and requests for support to the user support of the AI Factory where resources have been allocated.

Applicants must inform promptly the EuroHPC JU and the AI Factory where the resources are allocated of any changes to a successful proposal, namely a decrease in the amount of resources needed or on the distribution of the usage of the resources within the agreed time plan with the AI Factory.

Applicants are expected to utilize their resources efficiently and no project extensions are possible for these access modes. No allocation of additional resources is possible.

5 Process details

5.1 How to apply

All proposals must be submitted via the Peer-Review portal available at https://access.eurohpc-ju.europa.eu/**.**

All proposals will undergo an assessment in order to determine whether the proposed work is feasible. Different assessment procedures are described below in accordance with different access modes.

Successful applications are notified by email and are contacted by the technical teams of the assigned AI Factory for the onboarding procedure. Prospective users will be requested to sign an Acceptable User Policy before accessing the system.

5.1.1 Playground and Fast Lane Access

For Playground and Fast Lane Access, the calls are continuously open and there are no cut-off dates. The proposals are assessed on rolling basis.

The proposals consist of an **online form** available at https://access.eurohpc-ju.europa.eu/.
All mandatory fields of the online application form must be completed before it can be submitted. Please note that only submitted proposals will be put forward for further consideration.

The assessment procedure of submitted proposals entails the following:

1. **Eligibility Check** – controlled by a self-assessment of eligibility criteria and ethics-self-assessment. Proposals that are not eligible will not proceed to the next steps.
2. **Technical Assessment** – performed by the requested AI Factory to assess the technical feasibility of proposals. Proposals have to pass the technical assessment in order to access the system.

Upon successfully passing all the above steps, allocations are made on a first-come-first-served basis until the resources reserved for the specific call are exhausted.

For the conclusion of projects and dissemination, the Final Report templates can be found under the "Documents" section available on the EuroHPC JU website:

- Playground Access – Final Report template
- Fast Lane Access – Final Report template

5.1.2 Large Scale Access

For the Large Scale Access, the calls are continuously open with two cut-off dates per month. The cut-off date triggers the evaluation of the proposals.

The proposals consist of an **online form** available at https://access.eurohpc-ju.europa.eu/.
All mandatory fields of the online application form must be completed before it can be submitted. Please note that only submitted proposals will be put forward for further consideration.

All proposals must be fully completed and submitted by the closing cut-off date and time in order to be considered for evaluation for that submission period. The submission platform will not accept applications for a dedicated cut-off date that are submitted after the respective cut-off date and time have passed. All proposals submitted after the cut-off date and time will be considered for assessment in the next cut-off period. In the case of technical difficulties, the decision of EuroHPC JU as to whether an application can be accepted is final.

Applicants are advised to make sure, that they submit proposals as early as possible before the given deadline, in order to ensure that all mandatory fields are completed and submission is accepted.

The assessment procedure of submitted proposals entails the following:

1. **Eligibility Check** – controlled by a self-assessment of eligibility criteria and ethics-self-assessment. Proposals that are not eligible will not proceed to the next steps.
2. **Technical Assessment** – performed by the requested AI Factory to assess the technical feasibility of proposals. Proposals have to pass the technical assessment in order to access the system.
3. **Expert Evaluation** – the Industry Innovation Group established per AI Factory will evaluate each proposal based on the innovation and impact criterions and provide a ranked list of proposals suggested to receive access on each AI Factory.
4. **Ranking List approval** – Each AI Factory will send their ranked list of proposals and the EuroHPC JU Executive Director will need to approve the lists before the final results are communicated.

For the conclusion of projects and dissemination, the Final Report templates can be found under the "Documents" section available on the EuroHPC JU website:

- Large Scale Access – Final Report template

5.2 Right to appeal

Applicants whose proposal has not been awarded, may appeal to the decision by sending a formal letter by email to the EuroHPC JU (aif.access@eurohpc-ju.europa.eu) within 15 days from the date of reception of the rejection decision. The appeal letter should clearly state the reasons why the applicant considers that the evaluation or eligibility check results were incorrect, by referring to the rejection arguments listed in the response letter. The letter should not be a mere resubmission of the initial proposal.

A review committee will assess the reasons of appeal and will respond to the applicant within a maximum period of 1 month from the date of reception of the appeal. In case of eligibility rejection, the committee will recheck the reasons of rejection while in case of low ranking, the committee will assess whether there are grounds for proposal re-evaluation. In the latter case, a new evaluation committee will be assigned to perform the review.

Should the committee accept the grounds of redress, in case of eligibility rejection, the application will be included for evaluation in the next cut-off period. In case of low ranking, the application will be prioritized for allocation in the resources available for the next cut-off period.

6 Tips and examples

This section includes a few tips and examples of common mistakes or misunderstandings in the preparation and submission of proposals:

a) **Submission deadline.** A team faces last-minute problems, not related to the submission system, in the submission of their proposal and is not able to submit it completely before the deadline. The application is not considered for the current cut-off.
b) **Submission completeness.** An application is received incomplete, i.e. missing documents or documents with missing sections. The application is administratively rejected, and it will not be evaluated.
c) **Application exceeding limits.** A research team submits a proposal exceeding the page limits. The exceeding pages will not be considered as part of the application. Reviewers will be instructed not to consider the exceeding pages, and this may imply that the application is administratively rejected.
d) **Technical readiness**. A research team submits an application lacking information regarding the technical feasibility of the project, assuming that they will be able to provide this data during the evaluation of their proposal. The application is administratively rejected since this data is mandatory at the time of submission.

7 Contacts

For any queries related to applications, please contact: aif.access@eurohpc-ju.europa.eu.