EuroHPC
Joint Undertaking

Access Policy

for the allocation of the Union's share of access time of the EuroHPC Joint Undertaking Supercomputers and AI Factories

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PREFACE

SCOPE OF THE DOCUMENT

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

The EuroHPC JU is acquiring supercomputers and quantum computers (the EuroHPC supercomputers) which are located at and operated by supercomputing centres (Hosting Entities) in the Union. The Joint Undertaking manages the Union's access time (from 35% up to 50% of their total capacity) of these supercomputers. Access time is allocated to European scientific, industrial and public sector users, matching their demanding application requirements, according to the principles stated in the EuroHPC JU Council Regulation.

The supercomputing infrastructure deployed by EuroHPC represents a significant investment from the JU members (European Commission and Participating States). Defining rules and procedures for providing access to these systems is therefore an important process. It is essential that computation time is allocated in such a way as to maximise the impact of these systems on R&I, as well as commercial, activities in Europe. A well-defined access policy will ensure optimal allocation of resources and maximise the return of investment of the involved supercomputing systems.

So far, the EuroHPC supercomputers were mainly serving so-called traditional application areas (e.g., modelling, numerical simulation, etc.). In the last 24 months, we have seen an ever-increasing demand for AI-related applications, notably training of mid- and large-scale AI models, which are occupying an ever-increasing share of the Union's access time. In view the above and of the launch of the AI Factories initiative, the access policy to the EuroHPC supercomputers needs to be reviewed and be made more agile to the current needs.

This document provides the main principles and core characteristics of the **Access Policy for the allocation of the Union's share of the supercomputers** co-funded by the Joint Undertaking focusing on the allocation of access time for Open Research and Innovation activities. In addition, it covers specific allocation conditions to support industry uptake with focus on Small to Medium Enterprises (SMEs).

This revamped access policy considers that in 2025 the AI Factories will use the current set of EuroHPC supercomputers given that the new, AI-optimised ones will start being deployed towards the second half of the year and in 2026.

The document has been prepared by the EuroHPC JU, in close cooperation with the European Commission, and with the support of the EuroHPC JU Infrastructure Advisory Group (INFRAG) and the scientific experts of the current Access Resource Committee (ARC).

DEFINITIONS

'access time' means the computing time of a supercomputer that is made available to a user or a group of users to execute their computer programmes;

'EuroHPC supercomputer' means any computing system which is fully owned by the Joint Undertaking or co-owned with other Participating States or a consortium of private partners and

which is a classical supercomputer (high-end supercomputer, industrial-grade supercomputer, AI-optimised supercomputer or mid-range supercomputer), a hybrid classical-quantum computer, a quantum computer or a quantum simulator;

"AI-optimised supercomputer" means a supercomputer that is designed primarily for training large scale, general-purpose artificial intelligence ("AI") models and emerging AI applications;

"AI factory" means a centralised or distributed entity that provides an AI supercomputing service infrastructure which is composed of an AI-optimised supercomputer or an AI partition of a supercomputer, an associated data centre, dedicated access and AI-oriented supercomputing services, and which attracts and pools talent to provide the competences required to use the supercomputers for AI;

'national High Performance Computing competence centre' means a legal entity established in a Participating State that is a Member State, associated with the national supercomputing centre of that Member State, providing users from industry, including SMEs, academia, and public sector users with access on demand to the supercomputers and to the latest High Performance Computing technologies, tools, applications and services, and offering expertise, skills, training, networking and outreach;

'exascale supercomputer' means a computing system with a performance level capable of executing ten to the power of eighteen operations per second (or 1 Exaflop) supporting applications that deliver high-fidelity solutions in less time and that address problems of greater complexity;

'high-end supercomputer' means a world-class computing system developed with the most advanced technology available at a given point in time and achieving at least exascale levels of performance or beyond (i.e. post-exascale) for applications addressing problems of greater complexity;

'hosting agreement' means an agreement concluded between the Joint Undertaking and the hosting entity of an EuroHPC supercomputer, which defines the rights and obligations of the two parties during the acquisition and operation of the supercomputer;

'hosting consortium' means a group of Participating States that have agreed to contribute to the acquisition and operation of a EuroHPC supercomputer;

'hosting entity' means a legal entity which includes facilities to host and operate a EuroHPC supercomputer and which is established in a Participating State that is a Member State;

'mid-range supercomputer' means a world-class supercomputer with at most one order of magnitude lower performance level than a high-end supercomputer;

'Participating State' means a country that is a member of the Joint Undertaking;

'petascale supercomputer' means a computing system with a performance level capable of executing ten to the power of fifteen operations per second (or 1 Petaflop);

'pre-exascale supercomputer' or 'precursor to exascale supercomputer' means a computing system with a performance level capable of executing more than 100 Petaflops and less than 1 Exaflop

‘quantum computer’ means a computing device that harnesses the laws of quantum mechanics to solve certain particular tasks using therefore fewer computational resources than classical computers;

‘Small to Medium Enterprise’ or ‘SME’ refers to enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro

‘startups’ means young SMEs exhibiting high and rapid growth, aimed at developing innovative, technology-enabled products and services.

‘supercomputing’ means computing at performance levels requiring the massive integration of individual computing elements, including quantum components, for solving problems which cannot be handled by standard computing systems;

‘user’ means any natural or legal person, entity or international organisation that has been granted access time to use a Joint Undertaking supercomputer;

1 INTRODUCTION

1.1 THE EUROHPC JU MISSION AND CURRENT STATUS

The EuroHPC JU vision is to establish a world - leading federated and secure HPC and quantum service infrastructure ecosystem in the European Union and ensure wide use of this infrastructure for many public and private users, to support the development of key skills for European science and industry.

EuroHPC JU aims to develop, deploy, maintain, and extend in the Union a world leading federated and secure supercomputing, quantum computing service and connection to the data infrastructure ecosystem such as federated data spaces and data lakes.

This Access Policy document defines the processes and conditions for the allocation of access time to European users, from the Academia, Research, Industry and Public Sectors. The principles of this policy are defined in the EuroHPC Regulation as established in 2018 and refined in 2021. The ultimate goal of this policy is to optimise the usage of EuroHPC Supercomputers, maximising their exploitation by European researchers and Industry, accelerating knowledge growth and innovation, ultimately ensuring the best possible societal and economic impact for the European Union and its citizens.

1.2 REGULATORY FRAMEWORK

This Access Policy has been developed in the scope of the Council Regulation (EU) 2024/1732, Council Regulation (EU) 2021/1173 and Council Regulation (EU) 2018/1488 on establishing the EuroHPC JU and concerns the allocation of access time of the supercomputers procured in the context of these Regulations. Article 16 (3) of Council Regulation (EU) 2021/1173 states that users residing, established or located in a Member State or in a third country associated to Horizon 2020 shall be granted access to the Union's share of access time of the supercomputers acquired by the EuroHPC Joint Undertaking established by Regulation (EU) 2018/1488.[1] Article 16 (4) of that Regulation states that users residing, established or located in a Member State or in a third country associated to the Digital Europe Programme or to Horizon Europe shall be granted the Union's share of access time to EuroHPC supercomputers acquired after 2020.[2]

1.3 PRINCIPLES OF THE EUROHPC ACCESS POLICY

The aim of the EuroHPC Access Policy is to provide a transparent and equitable framework that gives all users a fair chance to the Union's access time and takes into consideration their needs and the available resources. The guiding principles of this framework are defined in the Council Regulation (EU) 2021/1173 and its Annexes. The following list summarises the key principles laid out in the Regulation and are guiding the procedures described in this policy document:

- The use of the supercomputers of the Joint Undertaking shall be open to public and private users residing, established or located in a Member State or in a third country associated to the Digital Europe Programme (DEP) or to Horizon Europe Programme (HE), and shall

[1] Infrastructure covered by Horizon 2020: pre-exascale supercomputers (LUMI-C, MareNostrum5, Leonardo) peta-scale supercomputers (MeluXina, Karolina, Vega, Deucalion, Discoverer)

[2] Infrastructure covered by Digital Europe Programme or Horizon Europe: exascale supercomputers (JUPITER, Alice Recoque), mid-range supercomputers (Arrhenius, Daedalus), AI factories and Quantum computers

focus on focus on civilian applications including applications in cybersecurity that may be of dual use.

- Users should be granted the Union's share of access time to the supercomputers of the Joint Undertaking according to access policy rules defined by the Governing Board.
- The use of these supercomputers should respect international agreements concluded by the Union.
- Allocation of access time to the supercomputers of the Joint Undertaking should primarily be based on open calls for expression of interest launched by the Joint Undertaking and evaluated by independent experts. The selection procedure should be adapted to the particular access mode.
- Use of the Union's share of access time to the supercomputers of the Joint Undertaking shall be free of charge for the users from the public sector of a Member State or a third country associated to the Digital Europe Programme or to Horizon Europe, for industrial users for applications related to research and innovation activities funded by Horizon Europe or the Digital Europe Programme, and for private innovation activities of SMEs, where appropriate.
- With the exception of SME users undertaking private innovation activities, all users benefiting from free-of-charge access time to the supercomputers of the Joint Undertaking should adopt an open science approach and disseminate knowledge gained through that access, in accordance with Regulation (EU) 2021/695.
- Union's access time to the supercomputers of the Joint Undertaking for commercial activities other than private innovation activities of SMEs, which face particular market failures, could be granted on a pay-per-use basis, based on market prices. Allocation of access time for such commercial activities should be allowed but limited and the level of the fee to be paid should be established by the Governing Board.
- The Governing Board shall define specific rules to grant access time free of charge, where appropriate, and without a call for expression of interest to initiatives considered as strategic for the Union.
- Upon the Union's request, the Joint Undertaking shall grant direct access to initiatives that the Union considers essential for providing health- or climate-related or other crucial emergency support services for the public good, to emergency and crisis management situations or to cases that the Union considers essential for its security and defence.
- The Joint Undertaking may carry out some limited economic activities for commercial purposes.
- The access rights should be equitable to any user and allocated in a transparent manner.
- The Governing Board defines and monitors the access rights to the Union's share of access time for each supercomputer of the Joint Undertaking.
- The AI-optimised supercomputers and EuroHPC supercomputers upgraded for AI capabilities shall be used primarily for the development, testing, evaluation and validation of large-scale, general-purpose AI training models and emerging AI applications, as well as for the further development of AI solutions in the Union requiring High Performance Computing and the execution of large-scale AI algorithms for the resolution of science problems.
- Access should be granted to users residing, established or located in a Member State or a third country associated to the Digital Europe Programme or to Horizon Europe.
- Access to the Union's share of access time to the precursors to exascale (pre-exascale) and petascale supercomputers acquired by the Joint Undertaking established under Regulation (EU) 2018/1488 shall continue to be granted to users residing, established or located in a Member State or in a third country associated to Horizon 2020.

1.4 CONTACTS WITH EUROHPC

The EuroHPC JU Peer-Review Sector (PRS) is responsible for implementing the Access Policy. The necessary committees listed in Section 2 and external experts from the EuroHPC JU experts' database are contributing to the Peer-Review evaluation processes. All enquiries regarding the access calls should be directed to the PRS using the following email: access@eurohpc-ju.europa.eu

1.5 PROPOSAL SUBMISSION

Proposals for Accessing the EuroHPC systems under one of the Access Modes described in this document are to be submitted online using the Peer-Review portal provided by EuroHPC JU from the following: https://access.eurohpc-ju.europa.eu/. Prospective applicants must use the application templates provided from the portal. Any other document format will lead to application rejection during the administrative checks. All information regarding access opportunities is available from https://eurohpc-ju.europa.eu/access-our-supercomputers_en

1.6 ASSUMPTIONS AND PRACTICAL CONSIDERATIONS FOR APPLICANTS

EuroHPC allocations are project-based and are offered for a fixed period of time, adhering to a predefined resource usage schedule. In principle, users will need to respect the usage schedule defined in their proposal. Allocations should not be exploited for production usage, as access to EuroHPC Supercomputers is dedicated to research purposes, such as computer simulations, in-silico scientific experiments or in the case e.g. of AI applications, for demanding model training but not for production, day-by-day, inference runs.

EuroHPC Supercomputers provide high-speed connectivity to the external world (typically through multi-Gbit links to GEANT network), however large data transfers need to be coordinated with the hosting site.

Similarly, although most EuroHPC Supercomputers provide large storage capabilities, they do not currently offer long-term archiving, data curation or other form of data preservation. Extremely large storage requirements need to be agreed with the Hosting Entity prior to running an application.

Users receiving access time to EuroHPC systems are expected to have at least a basic level of understanding regarding how to use high-performance computers effectively. This knowledge must be demonstrated in the access application. This requirement is relaxed for the Benchmark and Development Access, or the Playground and Fast Lane AI Access calls. Non-expert HPC users should only be eligible with adequate support of Hosting Entities and their Application Support Teams (ASTs) or the EuroHPC AI Support Centre.

The software and libraries required for the proper execution of the applications need to be provided by the user in case they are not already available in the requested system. In case access to commercial software is necessary, relevant licensing requirements need to be arranged with the Hosting Entities in advance.

1.7 ACTORS OF THE ACCESS POLICY

The following are the actors involved in the access policy process:

1.7.1 Governing Board

The EuroHPC JU Governing Board (GB) is responsible for the definition of the access policy according to the provisions in the JU regulation and as described therein, approving the terms and conditions of calls, and the final allocation of resources to applications.

1.7.2 The Executive Director

The EuroHPC JU Executive Director (ED) is responsible for the implementation of the access policy, supported by the EuroHPC JU staff. The Executive Director is particularly empowered to decide autonomously on the allocation of resources to applications in case of emergency scenarios.

1.7.3 EuroHPC JU Peer-Review Sector

The EuroHPC JU Peer-Review Sector (PRS) comprises of EuroHPC staff members dedicated to the task of managing and implementing the Access Policy. The PRS is responsible for launching the calls, receiving the applications, performing the administrative checks, assigning applications to technical and scientific reviewers and supporting the Access Resource Committee (ARC) to carry out the scientific Peer-Review process. It is also responsible for communicating the results to the successfully awarded projects and remains the main contact point for them. The Peer-review sector is part of the Infrastructure Unit of the EuroHPC Joint Undertaking

1.7.4 Access Resource Committee (for scientific Peer-reviews)

The Access Resource Committee consists of a group of highly qualified experts in HPC, covering a maximum of application domains and user communities. In the frame of the ARC, these experts should act on a personal basis, and independently of their employer organisation or Participating State. In addition, the ARC ensures a balanced representation of both industry and academia.

The Executive Director is responsible for establishing the criteria for eligible candidates (including Conflict-of-Interest rules) and for the appointment of its members.

Candidate members shall be internationally recognised as experts in the relevant fields of the tasks of the EuroHPC Access Resource Committee, including several scientific domains, industrial interest and public sector related topics.

The term of the ARC members is 2 years, renewable once. The ARC will appoint a chair among its members.

The ARC is supported by the EuroHPC JU Peer-Review Sector to carry out their tasks. These tasks are twofold:

- Support the Executive Director in the preparation of the planning and scope of the EuroHPC access calls.
- Support the Executive Director in the allocation of experts to applications, in the prioritisation of applications, and in the allocation of access time to supercomputers.

1.7.5 AIF Industrial Innovation Group

The AI Factory Industrial Innovation Group comprises domain experts appointed by the Hosting Entities operating AI Factories. They collectively support the evaluation process of the Large Scale AI access mode by providing domain expertise necessary to evaluate the Innovation and Impact aspects of the requests to access resources and services of the EuroHPC AI Factories.

1.7.6 Infrastructure Advisory Group

The Infrastructure Advisory Group (INFRAG) provides advice to the Governing Board on the access policy and support to the Executive Director in the implementation. INFRAG may participate in the following tasks:

- Participation in the periodic assessment of the EuroHPC Access Policy, advising on adjustments and improvements to the process.

Propose experts and criteria for the composition of the Access Resource Committee.

1.7.7 Applicants / End Users

Applicants submit proposals requesting access time on EuroHPC Supercomputers. They comprise HPC users coming from academia, public sector and industry, as well as large groups from Strategic EU initiatives and EC funded projects. They are led by a Principal Investigator (PI) who is responsible to submit the proposal on behalf of the group and represent the latter during the interactions with the EuroHPC JU. Successful applicants sign an Acceptable Use Policy with the requested system Hosting Entity in which defines their limits and obligations when accessing the systems as End Users.

1.7.8 Hosting Entities

Hosting Entities (HEs) are responsible for the provision of HPC and AI Factory resources and services to End Users. HEs ensure the allocation of Union's access time of the EuroHPC supercomputers to projects allocated following the procedures defined within this Access Policy.

2 ACCESS MODES FOR TRADITIONAL HPC APPLICATIONS

2.1 OVERVIEW

The EuroHPC JU Access Modes for Traditional HPC Applications define the different modalities in which the EuroHPC JU resources are offered to scientists and researchers to conduct fundamental research activities based on classical HPC usages (e.g., numerical simulation). The Access Modes are categorised according to several parameters such as the volume of resources offered, the complexity of the evaluation process that is applied, the type and maturity of applications targeted by each mode, and the periodicity of cut-off dates. Typical values for these parameters are provided in this document, but actual values are defined before the publication of each call, taking into considerations the type and percentage of resources available in the EuroHPC supercomputers, and the different percentage of such resources allocated by Governing Board to each access mode.

The EuroHPC JU allocates up to 45% of the current system resources dedicated to the EU share of access for the purposes of Traditional HPC Applications for all the categories of access presented in this section.

2.1.1 Application evaluation complexity

A call for access involves an evaluation process. For Access Modes allocating large proportions of system resources, ***a peer-review evaluation is required to rank the applications based on the established evaluation criteria***. These modes are:

- Extreme Scale Access (§2.2)
- Regular Access (§2.3)

These modes require the involvement of large number external experts which support the Access Resource Committee to conclude the final ranking of proposals. The result of this rigorous process is that a number of applications may be rejected due to lower ranking. This is because the JU must first allocate resources in order of ranking, with the highest ranked proposals receiving resources first until the latter are exhausted.

Two non-peer-reviewed Access Modes follow a simplified approach to application evaluation to accelerate the review process and reduce the time to inform the results and start of allocation period. These modes are:

- Benchmark Access (§2.4)
- Development Access (§2.5)

In addition to the above modes, allocations can be granted following exceptional procedures as foreseen by **Strategic Access** (§4.2) and **Emergency Access** (§4.3).

2.1.2 Access opportunities for Industry and SMEs

Support for industry, and in particular European SMEs and startups, is one of the key goals of EuroHPC supercomputers. Depending on the purpose of usage we identify three cases/opportunities for access:

- Access for traditional computational Research and Development (R&D) applications following the Open Science principle. All access modes are open to users from industry primarily for publicly funded research and innovation activities (see section 1.3), which involves publication of the outcome of the use of the resources. The need of industry

applicants is met by prioritising a share of the offered resources to applications led by industry[3] in a given call. In these cases, innovation and impact is prioritised over scientific excellence.

- Access for Artificial Intelligence. The Access for AI applications aims to support the research and innovation of AI models and applications. Scientists and industrial users, in particular SMEs, seeking for possibilities to train AI models are expected primarily to apply for access to one of the calls of the AI Factories access tracks described in Section 3.

- Pay-per use commercial access. European enterprises can also benefit from the commercial access offered by the EuroHPC JU. This is particularly suitable for industrial HPC applications, for which the restrictions of open calls and Peer-Review processes are prohibiting (e.g. commercial exploitation incompatible with open publication of the project's results). The specific conditions for Commercial Access are described in §3.9.

2.1.3 Eligibility Criteria

The acquisition and operation of EuroHPC JU supercomputers are funded using a variety of different EU programmes, notably Horizon 2020, Horizon Europe and Digital Europe Programme. In particular, pre-exascale and petascale systems were funded by Horizon 2020 whereas exascale, mid-range and quantum systems are funded by the Digital Europe Programme. Following the EuroHPC Regulation, eligibility for access depends on the country in which the applicants are established and whether this country is affiliated to the abovementioned programs. Therefore:

- Eligible for accessing Pre-exascale and Petascale supercomputers are users residing, established or located in an EU Member State or in a country associated with Horizon 2020[4] Programme. By analogy,
- Eligible for accessing Exascale (High-end) and Mid-range supercomputers are users residing, established or located in an EU Member State or in a country associated with Horizon Europe[5] program or Digital Europe[6] Programme.

2.1.4 International Cooperation

EuroHPC JU has been delegated the responsibility for implementing international cooperation activities in the area of HPC and quantum with third countries for which the Commission has signed an EU Digital Partnership containing such activities.

In this context, access to the EuroHPC systems for projects in the third country may be granted by the EuroHPC JU governing Board based on the principle of reciprocity, i.e. the access time offered on EuroHPC systems should be reciprocated by equal access time from supercomputers in the pre-identified third country.

Access to a supercomputer that is offered in the context of international cooperation by a third country, will appear as an additional partition in the list of systems available in EuroHPC Access calls. The normal peer-review process will be followed and will ensure that the same evaluation

[3] Applications whose Principal Investigator comes from industry, having clear industrial exploitation plan.

[4] See list of participating countries in Horizon 2020

[5] See list of participating countries in Horizon Europe

[6] See list of countries associated to Digital Europe Program

process and principles that apply to EuroHPC supercomputers will also apply for the international systems located in these third countries.

The exchange of access time will take architectural differences and the capabilities of the participating systems into account and may require the application of pre-agreed node hour conversion factors. The JU will negotiate the exact amount and conditions for such access and present them to the GB for approval.

In terms of access eligibility, international collaboration implies that entities established in the pre-identified third countries should also have access to EuroHPC supercomputers following allocation policies established in the cooperating third country.

2.1.5 Overview of EuroHPC Access Modes for traditional HPC applications

The following table summarises the access modes for traditional HPC applications and offers and quick reference for assessing their differences and suitability for specific applications. The table does not include commercial access.

Access Mode	Extreme Scale Access	Regular Access	Benchmark Access	Development Access
Allocation Duration	1 year	1 year	3 months	6 months to 1 year
Recurrence	Continuous call, cut-offs every six months (2 cut-offs per year)	Continuous call, cut-offs every six months (2 cut-offs per year)	Continuous call, monthly cut-offs (12 cut-offs per year)	Continuous call, monthly cut-offs (12-cut offs per year)
Possibility for project extension	Yes, max 3 months and up to 20% of initial allocation, subject to progress report approval	Yes, max 3 months and up to 20% of initial allocation, subject to progress report approval	No	No
Share of resources (indicative)	Up to 40 % (of the traditional HPC share) of participating systems High-end systems (pre-exascale and exascale)	Up to 70 % (of the traditional HPC share) of participating systems All systems	Up to 5% (of the traditional HPC share) of participating systems All systems	Up to 5% (of the traditional HPC share) of participating systems All systems
Data storage needs	Large storage for the duration of the allocation	Large storage for the duration of the allocation	Limited	Limited
Accessible to industry	Yes Specific track and evaluation criteria	Yes Specific track and evaluation criteria	Yes	Yes
Scientific Peer-review	Yes	Yes	No	No
Technical assessment	Yes	Yes	Yes	Yes
Data Management Plan	Yes	Yes	No	No
Application type	Full application	Full application	Technical application	Technical application
Prerequisite	Benchmark	Benchmark	None	None
Maximum Duration of evaluation process	6 months	4 months	2 weeks	2 weeks

Table 1 - Access Modes for traditional HPC applications

2.2 EXTREME SCALE ACCESS

2.2.1 Description

This access mode calls for applications with high-impact, high-gain innovative research, open to all fields of science, industry and public sector justifying the need for and the capacity to use extremely large allocations in terms of compute time, data storage and support resources.

Resources are allocated through a continuously open call for applications with **two (2) cut-offs** per year. **The allocations are granted for a period of one (1) year,** with possibility of extension of 3 months in case resources have not been consumed.

Extreme Access calls allocate resources from the high-end EuroHPC systems, i.e., pre-exascale and exascale. Up to 40% of the traditional HPC EU share of the access time to these resources is expected to be allocated, depending on requirements for allocation from other access modes for these systems in a given period (e.g., allocation requirements for Strategic Initiatives or Urgent applications).

Applicants (Principal Investigators) can, in principle, **only be awarded access time for one** Extreme Scale Access application at any given time. However, where an applicant has applied for access time for more than one project, awards of additional ranked projects from the same Principal Investigator are possible, provided that computing time is still available in the given call.

The availability of large-scale systems opens the possibility of supporting outstanding research and innovation projects requiring access to very large-scale computing and storage resources. Extreme Scale Access calls will allocate resources primarily from EuroHPC JU high end systems (pre-exascale and exascale).

Calls for Extreme Scale Access are open for all categories of applications for three types of users: Scientific, Industry and Public Sector. The calls are structured along three distinctive tracks respectively for scientific, industrial and public sector users, for enabling access to all these three different categories of users without unnecessary competition among them and with slightly different evaluation criteria for each user category. Each call defines the level of resources available for each track. The ranking of proposals is done separately for each track and applications are awarded until the resources reserved for each track are exhausted.

All submitted applications are peer reviewed.

Flagship scientific applications that are able to exploit the full scale of EuroHPC exascale and pre-exascale supercomputers are the main target for Extreme Scale Access.

Candidates for Extreme Scale Access Calls may indicate in their application form the necessity to be supported by a EuroHPC Application Support Team.

2.2.2 Requirements

The eligibility requirements for applicants to Extreme Scale Access calls are the following: Users from academia, research institutes, public authorities and industry, residing, established or located in a Member State, or in a third country associated to Horizon Europe 2020, the Digital Europe Programme or to Horizon Europe, are eligible to apply to the Union's share of access time to EuroHPC supercomputers (see section 1.3).

Applicants should submit a full application supporting the relevance of the application to the call. The application must:

- Demonstrate that the application requires the use of extremely large allocations to reach the objective of their application.
- Demonstrate that the method, software and tools are technically adapted to the target supercomputer, thereby demonstrating the feasibility of the project. To this end, applicants will rely on technical data collected via a Benchmark Access.
- Provide a project plan, in the form of a Gantt chart, with adequate time schedule of the expected resource consumption during the lifetime of the project.
- Commit to publish the results of their project[7].

This Access mode is open to users in accordance with the conditions outlined in Section 1.3 above.

2.2.3 Evaluation process

As well as the technical assessment, the application will be evaluated based on a set of evaluation criteria which cover:

- **Excellence** in the relevant application domain, and in particular:
  - Scientific excellence for calls targeting public research and academia. The proposed research must demonstrate scientific excellence and a potential for high European and international impact.
  - Industrial impact and innovation for calls targeting industry. The proposed research must demonstrate industrial relevance for the Participating States of EuroHPC JU and a potential for high impact in European competitiveness and innovation.
  - Public sector impact and innovation for calls targeting users from the public sector. The proposed application must demonstrate public sector relevance of the application and potential socio-economic impact for the Participating States of EuroHPC JU.

- **Novelty and Innovation**. Applications should be novel, or build on existing novel work, include transformative aspects and describe their expected scientific, economic and social impact as relevant.
- **Methodology**. The methodology (methods, algorithms and tools) used should be appropriate to achieve the goals of the project.
- **Quality and efficiency of implementation** including a clearly defined Data Management plan.
- **Feasibility**. The application must demonstrate its technical feasibility.
- **Dissemination**. The plan for dissemination and publication of the project results must be described.

The scientific excellence of the application is the primary factor in the final allocation decision of the scientific track.

[7] In case of disclosure issues due to the Intellectual Property from the industrial projects, the applicant should duly justify the cause of the limitation and submit a limited report to be used for public dissemination.

Innovation and impact are prioritised for the final allocation decision of the industry and public sectors tracks.

The evaluation process is structured as follows:

- The call is open continuously with bi-yearly cut-off dates.
- The evaluation process runs over 6 months and includes:
  - Administrative check
  - Technical assessment of each application by the experts of the Hosting Entities offering resources to the specific call.
  - Scientific Evaluation organised by the EuroHPC JU Peer-review office and the Access Resource Committee (ARC). The process is supported by external independent experts which perform individual evaluation of proposals providing comments and scores on the awarding criteria.
  - Scores and rankings are consolidated by the Access Resource Committee (ARC) and the Hosting Entities during the ARC meeting and the Resource Allocation Panel (RAP) meeting, which are submitted to the Executive Director. Based on the ranking and the recommendations from the ARC, dedicated effort from a EuroHPC AST maybe assigned to support successful applicants.
  - The Executive Director submits the results to the Governing Board for their final approval.

2.2.4 Confidentiality and Non-Disclosure

The following principles apply:

- Submitted applications and reviews are treated confidentially and are only be used for review purposes.
- Reviewers are checked that they do not have any conflicts of interest.
- Reviewers remain anonymous.

2.2.5 Project extensions

Users may request extension of their allocation of up to 3 months in the event that they were not able to consume the assigned resources and complete their project in the allotted time. In such cases, the PI should submit a formal request to EuroHPC JU PRS at least 1 month before the conclusion of the project. The request should clearly state the reasons behind the underspending and provide a short progress report with the work performed so far and the remaining activities to achieve the foreseen goals of the project.

Up to 20% of initial allocation can be used during the extension period. If the underutilised time is more than 20% then the excessive time is removed from the total remaining allocation. No allocation of additional resources is possible. In this instance, a new proposal needs to be submitted in one of the established calls. The EuroHPC PRS will consult the Hosting Entity, to finalise the decision for extension. No further requests for extension will be accepted after the 3-month extension.

2.2.6 Access outcome reporting requirements and misuse mitigation

Principal Investigators commit to:

- acknowledge the use of the resources in their related publications,
- contribute to dissemination events,

- produce a full report [8] within three (3) months of the completion of a resource allocation, including information on energy use and carbon footprint of the project while using the supercomputers.
- update the list of publications typically semi-yearly for another two years.
- contribute to public reports prepared by the JU [9]

Misuse of resources includes:

- significant under-usage of the allocation without justification,
- use for not intended purposes as described in the evaluated application,
- unethical behaviour, or
- any other breach of the Hosting Entity Acceptable Use Policy.

Such misuse will be recorded and considered in future calls and proposals submitted from the same PI and user group. Additionally, the allocated usage will be monitored on quarterly bases and in case of under-usage the PI will be requested to duly justify the reason. In case of repeated underusage, the project can be penalised by a proportional decrease of allocated resources.

In case the awarded resources are not utilized per the provided work plan and Gantt Chart, the Hosting Entity may distribute the unused access time to other projects running on the system.

2.3 REGULAR ACCESS

2.3.1 Description

This access mode is open to all fields of science, industry and the public sector, and invites applications which present compelling cases that will enable scientific innovation in the domains covered. The expected impact in the application's domain should justify the need for large allocations in terms of compute time, data storage and support resources.

This access mode will allocate resources through a continuously open call for applications associated with **two (2) cut-off dates per year**.

The allocations are granted for a period of one (1) year with possibility of extension of 3 months in case resources have not been consumed.

Regular Access calls allocate resources from all EuroHPC systems. Around 70% of the traditional HPC EU share of the access time to these resources is expected to be allocated, depending on requirements for allocation from other access modes for these systems in a given period (e.g., allocation requirements for Strategic Initiatives or Urgent applications).

The allocations are granted for one (1) year. Applicants (Principal Investigators) can, in principle, be awarded access time for **only one** Regular Access application at any given time. However, where an applicant has applied for access time for more than one project, awards of additional ranked projects from the same Principal Investigator can be granted provided that resources are still available in the given call.

[8] In case of disclosure issues due to the Intellectual Property from the industrial projects, the applicant should duly justify the cause of the limitation and submit a limited report to be used for public dissemination.

[9] In case of disclosure issues due to the Intellectual Property from the industrial projects, the applicant should duly justify the cause of the limitation and submit a limited report to be used for public dissemination.

The Regular Access mode is meant to serve research domains or communities that require medium- to large-scale access to compute and/or storage resources.

Calls for Regular Access are open for all categories of applications (Scientific, Industry and Public Sector). The calls are structured along three distinctive tracks respectively for scientific, industrial and public sector users, for enabling access to all these three different categories of users without unnecessary competition among them and with slightly different evaluation criteria for each user category. Applicants need to specify which track they apply for. Each call defines the level of resources to be available for each track. Ranking of proposals is done separately for each track and applications are awarded until the resources reserved for each track is exhausted.

All submitted applications will be peer reviewed.

The majority of European scientific applications are expected to be served by this access call.

This Access mode is open to users in accordance with the conditions outlined in Section 1.3 above.

2.3.2 Requirements, Access Conditions and Evaluation process

The requirements and access conditions are similar to those of the Extreme Scale access.

The evaluation criteria are the same as those listed for Extreme Scale (see 2.2.3).

The scientific excellence of the application is the primary factor of the final allocation decision of the scientific track.

Innovation and impact is prioritised for the final allocation decision of the industry and public sectors tracks.

The evaluation process is similar to the one for Extreme Scale access, however with a simplified approach for the scientific review that allows a quicker turnaround of the evaluation results. Aspects that simplify the process are the engagement of less external experts per proposal evaluation and the organisation of online meetings for the final Resource Allocation Panel.

2.4 BENCHMARK ACCESS AND DEVELOPMENT ACCESS

2.4.1 Description

The Benchmark Access and Development Access modes are aiming to provide quick access to a small-to-medium amount of resources to accelerate the adoption of supercomputing methodologies and provide resources for small-scale testing and development activities. The differences between these access modes reside in the duration and the maximum amount of node-hours available.

2.4.2 Benchmark Access

The Benchmark access mode is meant for all categories of users who want to collect performance data or test a method, such as machine learning training, on a target system in order to document the technical feasibility of their applications to be submitted to other access modes. The corresponding parameters are adapted to fit the given need, limiting and preventing misuse of the resources; these resources represent a limited share of the total resources available.

Benchmark access is provided through continuously open calls with monthly cut-offs. Access period may be granted for 3 months.

This access mode allocates a small fraction (~5 % of the total traditional HPC EU share) of the available resources in each EuroHPC system. Applications granted for benchmark access may use the total capacity of the allocated system, if needed, for large scale benchmarking tests.

2.4.3 Development Access

The Development access mode is meant for projects focusing on code and algorithm development, development of workflows, HPC trainings, as well as Natural Language Processing, Foundation Models and other methods for AI applications. This access mode is mostly targeting medium size executions that do not target large scale production runs and is aiming for code and algorithmic validation before requesting access to an Extreme Scale or Regular Access call.

Development access is provided through continuously open calls with monthly cut-offs. Access periods are granted for up to 6 months with no possibility of extension. Specific arrangements can be implemented if needed to efficiently support part of the eco-system that would benefit from such access as for instance Centres of Excellence or Competence Centres.

This access mode allocates a very small fraction (~5 % of the total traditional HPC EU share) of the available resources in each EuroHPC system. Applications granted for development access may use the complete allocated system if needed for scalability tests.

2.4.4 Requirements

The eligibility requirements for applicants to both Benchmark and Development calls are the following: Users from academia, research institutes, public authorities and industry, established or located in a Member State, or in a third country associated to Horizon 2020, the Digital Europe Programme or to Horizon Europe, are eligible to apply to the Union's share of access time to EuroHPC supercomputers (see eligibility criteria of section 1.3).

The resources that can be requested via this mode are limited with pre-defined fixed values in terms of node-hours per application. Applicants will submit a light access request that will support the relevance of the application to the call.

2.4.5 Evaluation process

Both the Benchmark and Development access modes follow a simplified evaluation process approach to reduce the time to inform the results and start of allocation period. The evaluation process runs as follows:

- At the end of the cut-off date the applications submitted are forwarded for evaluation. The evaluation process will allocate access to resources within maximum 2 weeks (target an average of 1 week) and includes:
  - Eligibility check and Technical Assessment of the relevance and feasibility of the request on the targeted system by experts of the targeted hosting entity. Proposals passing the technical assessment are automatically allocated access to the requested system(s).
- Requests from academia, research institutes, public sector and commercial organisations (industry) are handled the same way.

This Access mode is open to users in accordance with the conditions outlined in Section 1.3 above.

2.4.6 Project extensions

No project extensions are possible.

2.4.7 Access outcome reporting requirements and misuse mitigation

Successful applicants are required to submit a short report on the outcome of their access including outcome of the porting and the benchmark results or results of the code development, issues encountered, and solutions implemented as well as information on energy use and carbon footprint of the project while using the supercomputers.
Misuse of resources includes:

- use for not intended purposes as described in the evaluated application,
- unethical behaviour, or
- any other breach of the Acceptable Use Policy.

Such misuse will be recorded and considered in future calls and proposals submitted from the same PI and user group.

Given the small amount of available resources and the short timeframe associated to this access mode, misuse mitigation measures for system underutilisation will not be applied.

3 ACCESS MODES FOR AI FACTORIES

3.1 OVERVIEW

Following the 2024/1732[10] amendment of to the EuroHPC regulation, the Joint Undertaking has been tasked with the strategic goal to establish AI Factories (AIF) across Europe. These AI factories will build around AI-optimised supercomputers, offering computing resources and support services to the European industry, as well as to the European scientific users for the development of large AI models and more broadly for the exploitation of AI technology capabilities in the Union, and for the development of skills and knowledge in the domain of AI.

During 2025 the JU is in the process of selecting the Hosting Entities that will establish these AI Factories. The first AI-optimised supercomputers are expected to come online in the second half of 2025 and in 2026. Until then, and in order to serve the immediate needs of the European AI industrial and scientific users, EuroHPC will rely on the existing operational supercomputers (pre-exascale and petascale systems) capable to support AI applications, to offer resources to the European AI users. For that purpose, EuroHPC is introducing the Access modes described in this Section.

These access modes offer resources and services provided by the selected EuroHPC JU AI Factories, which will rely on their existing EuroHPC supercomputers to support these calls. The **AI Factories access** modes ***AI for Science and for Collaborative EU Projects*** and ***AI 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) as well.

These access modes will allocate:

- ***AI for Science and for Collaborative EU Projects***: Up to 25% of the overall EuroHPC share of access time;
- ***AI for Industrial Innovation***: Up to 30% of the overall EuroHPC share of access time.

The following table summarises the access modes and offers and quick reference for assessing their differences and suitability for specific applications.

[10] 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

Access Mode	AI for Science and for Collaborative EU Projects	AI for Industrial Innovation		
		Large Scale	Playground	Fast Lane
Allocation Duration	6 months	1 year	3 months	3 months
Recurrence	Bi-monthly cut-offs (6 cut-offs per year)	Bi-weekly cut-off	Continuously open	Continuously open
Possibility for project extension	Yes, max 3 months and up to 10% of initial allocation, subject to progress report approval.	Yes, max 3 months and up to 10% of initial allocation, subject to progress report approval.	No	No
Share of resources (indicative)	Up to 25% of petascale, pre-exascale and exascale supercomputer partitions with AI capabilities	Up to 30% of AIF systems	Up to 10% of AIF systems	
AI resources offered	Depending on system size; aligned with the minimum allocations of Regular Access calls	More than 50.000 GPU Hours	Limited	Up to 50.000 GPU hours
Data storage needs	Large storage for the duration of the allocation	Large storage for the duration of the allocation	Limited	Limited
Peer-reviewed	Yes	Yes	No	No
Technical assessment	Yes	Yes	Yes	Yes
Data Management Plan	Yes	Yes	No	No
Application type	Technical application	Full application	Technical application	Technical application
Prerequisite	None	Playground/Benchmark allocation	None	None
Maximum days to respond	30 days	10 working days	2 working days	4 working days

Table 2 - Access Modes for AI (AI Factories)

3.2 AI FOR SCIENCE AND FOR COLLABORATIVE EU PROJECTS

3.2.1 Description

This access mode aims to support AI applications for science, with a focus on ethical Artificial Intelligence, Machine Learning, and cutting-edge foundation Models and Generative AI, including Large Language Models.

This access mode covers all types of scientific users (whether funded or not by national or European programmes), users from public sector, as well as industrial users participating in R&I projects funded by EU Programmes such Horizon Europe or the Digital Europe Programme. All other types of industrial users should target the AI for Industrial Innovation access mode.

This access mode allocates resources from all the EuroHPC partitions with AI capabilities. Up to 25% of the EU share of the access time to these resources is expected to be allocated, depending

on requirements for allocation from other access modes for these systems in a given period (e.g., allocation requirements for Strategic Initiatives or Urgent applications).

This access mode will allocate resources through a continuously open call for applications with **six (6) cut-off dates per year** (one cut-off date every two months).

The allocations are granted for six (6) months with possibility of extension of 3 months in case resources have not been consumed.

Applicants can, in principle, be awarded access time for **only one** access for AI application at any given time. However, where an applicant has applied for access time for more than one project, awards of additional projects from the same applicant can be granted provided that resources are still available in the given call.

This access mode is dedicated to serve scientific research activities that rely on AI models as part of their research workflow. The call is focusing on the training of scientific applications in all science domains, including Large Language Models, to serve the requirements of European scientific domains.

This access mode is also focusing on industrial and public users whose projects are funded by an EU programme for Research and Innovation purposes, such as Horizon Europe, Digital Europe or others.

Given that this access mode is mainly addressing AI scientific research and innovation applications, only a limited percentage of the allocated access time should be dedicated to inference runs of trained AI models.

All submitted applications are peer reviewed.

Access for AI calls will allocate resources from EuroHPC systems offering optimal hardware for AI applications; for example, compute partitions of EuroHPC systems with accelerators (i.e. Graphics Processing Units). Applications approved for the AI calls will get access to the supercomputing resources offered by the EuroHPC peta-scale, pre-exascale and exascale supercomputers. Resources will be provisioned with traditional job-based allocations within single-tenancy environments.

This access mode is open and free of charge to eligible public and private users, primarily for publicly funded research, as well as for industrial applications in collaborative projects which are funded by Horizon Europe or the Digital Europe Programme.

Proposals granted access for AI for Science will receive continuous and guaranteed access to their share of compute for the allocated duration. In the event of disruptions, these workloads will be prioritised to ensure immediate restoration of access to resources.

3.2.2 Requirements

The eligibility requirements for applicants to AI for Science Access call are set out in section 1.3. Users from academia, research institutes, public authorities and industry, established in a Member State, or in a third country associated to Horizon 2020, the Digital Europe Programme or to Horizon Europe, are eligible to apply to the Union's share of access time to EuroHPC supercomputers (see eligibility criteria).

Candidates need to submit a full application supporting the relevance of their proposal to the call. The application must:

- Demonstrate that their application requires the use of EuroHPC supercomputer resources - both in terms of compute and medium and/or long-term data storage - to reach the objective.
- Demonstrate that the method, software and tools are technically adapted to the target supercomputer thereby demonstrating the feasibility of the project. To this end, applicants should rely on technical data collected via a Benchmark Access.
- Provide a project plan, with adequate time schedule of the expected resource consumption during the lifetime of the project as well as a Gantt chart.
- Adhere to ethical usage of AI.
- Generated data and models remain under the ownership of the user.

3.2.3 Evaluation process

The evaluation process runs for maximum duration of 1 month and is structured as follows:

- **Administrative** check, performed by the EuroHPC JU Peer-Review office, following the ethics guidelines defined by the EU AI Act[11], to ensure Ethical and Trustworthy AI use of the systems, as well as confirmation of the candidate's SME status (if applicable).
- **Technical assessment** of each application by the experts of the Hosting Entity responsible to operate the requested systems (including a confirmation that an ethical check in line with EU AI Act[12] has been made).
- **Independent** evaluation of each application by domain experts, members of the ARC, responsible for assessing the applicability and validity of the described AI method.

Applications will be evaluated based on a set of evaluation criteria, including:

- **Excellence** – aims to evaluate the quality and merit of the project.
- **Innovation and Impact** – intends to assess the innovative nature, the potential impacts and contributions of the project.
- **Quality and Efficiency of the Implementation** – intends to evaluate the quality and feasibility of the work plan in order to deliver the project successfully.

Upon successfully passing all the above steps, applications will be granted access to the requested system.

Applications of EU-funded research projects, that have already been evaluated by independent expert panels, are passed without further evaluation and have priority over the rest of the proposals submitted within the same cut-off period.

3.2.4 Project extensions

Users may request extension of their allocation of up to 3 months in the event that they were not able to consume the assigned resources and complete their project in the allotted time. In such

[11] https://www.europarl.europa.eu/news/en/headlines/society/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence

cases, the applicant should submit a formal request to EuroHPC JU PRS at least 1 month before the conclusion of the project. The request should clearly state the reasons behind the underspending and provide a short progress report with the work performed so far and the remaining activities to achieve the foreseen goals of the project.

Up to 10% of initial allocation can be used during the extension period. If the underutilised time is more than 10% then the excessive time is removed from the total remaining allocation. No allocation of additional resources is possible. In this instance, a new proposal needs to be submitted in one of the established calls. The EuroHPC PRS will consult the Hosting Entity, to finalise the decision for extension. No further requests for extension will be accepted after the 3-month extension.

3.2.5 Access outcome reporting requirements and misuse mitigation

Successful applicants are required to submit a report on the outcome of their access including outcome of the porting and the benchmark results or results of the machine learning training data outcome, issues encountered, and solutions implemented as well as information on energy use and carbon footprint of the project while using the supercomputers.

Misuse of resources includes:

- use for not intended purposes as described in the evaluated application,
- unethical behaviour and in particular activities that do not adhere to the ethics principles of the EC AI Act, or
- any other breach of the Acceptable Use Policy.

Such misuse will be recorded and considered in future calls and proposals submitted from the same applicant and user group.

Misuse of the access mode (for instance using the resources for other purposes than those documented in the request) may lead to the applicant being banned from applying for a certain period. Additionally, the allocated usage will be monitored on a monthly basis and in case of under-usage the applicant will be requested to duly justify the reason. In case of repeated behaviour, the project will be penalised by a decrease of allocated resources.

3.3 AI FOR INDUSTRIAL INNOVATION

The AI Factories Industrial Innovation track allocates AI-specific resources from all the EuroHPC systems established in AI Factories. Up to 30% of the EU share of the access time to these resources is expected to be allocated, depending on requirements for allocation from other access modes for these systems in a given period (e.g., allocation requirements for Strategic Initiatives or Urgent applications).

The AI Factories Industrial Innovation track includes three access modes, targeting different use cases and compute needs.

1. **Playground** access, providing very limited resources for entry-level users (§3.3.1).
2. **Fast Lane** access, for users already familiar with HPC requiring up to 50,000 GPU hours (§3.3.1).
3. **Large Scale** access, catering for AI models and applications requiring more than 50,000 GPU hours (§3.3.2).

The Industrial Innovation Access modes are open and free-of-charge to AI SMEs (including startups) for innovation purposes. Other industrial applications can benefit from pay-per-use commercial access.

3.3.1. Playground and Fast Lane AI Access

3.3.1.1 Description

These two access modes aim to provide access to AI resources using a lightweight and quick evaluation process in order to allow applications to gain access to EuroHPC supercomputers in the shortest time possible. The difference between these access modes' workflows relies essentially on the target users and the time to respond to the request.

- Playground: Entry-level users; access granted within 2 working days.
- Fast Lane: HPC-ready users; access granted within 4 working days.

The combined allocation for these two access modes should not exceed 10% of the total share of the EU access time.

3.3.1.2 Evaluation process

Applicants need to submit a brief application supporting the relevance of their proposal to the calls (templates will be provided in the corresponding calls). Both calls are continuously open. Proposals are evaluated on first-come, first-served basis. The evaluation process runs for maximum duration of 2 working days for the Playground and 4 working days for the Fast Lane access. The process comprises eligibility and technical assessment. Upon successfully passing all the above steps, applications will be granted access to the requested system.

Allocations are made on a first-come-first-served basis until the resources reserved for the specific system are exhausted.

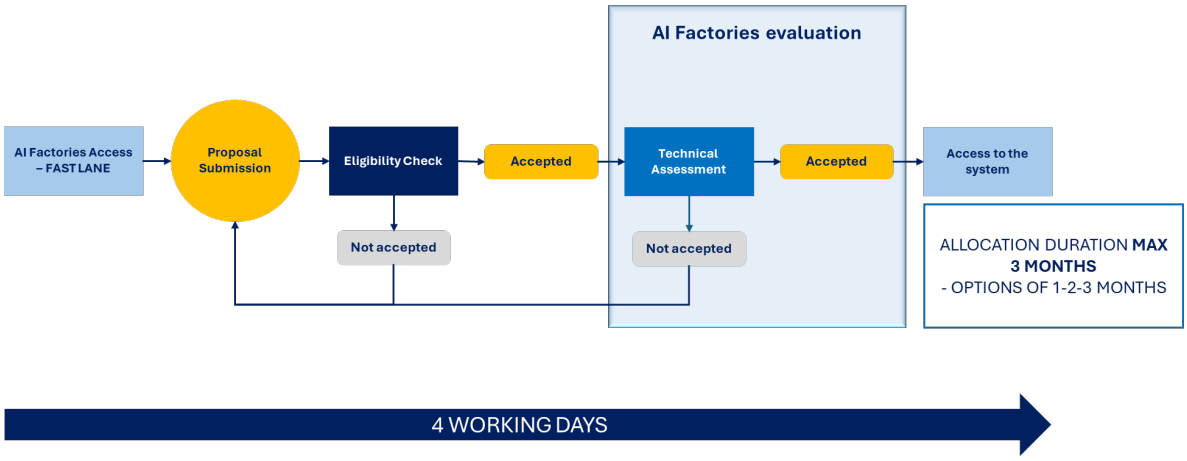

Figure 1 - Overview of the Fast Lane AI Access evaluation process

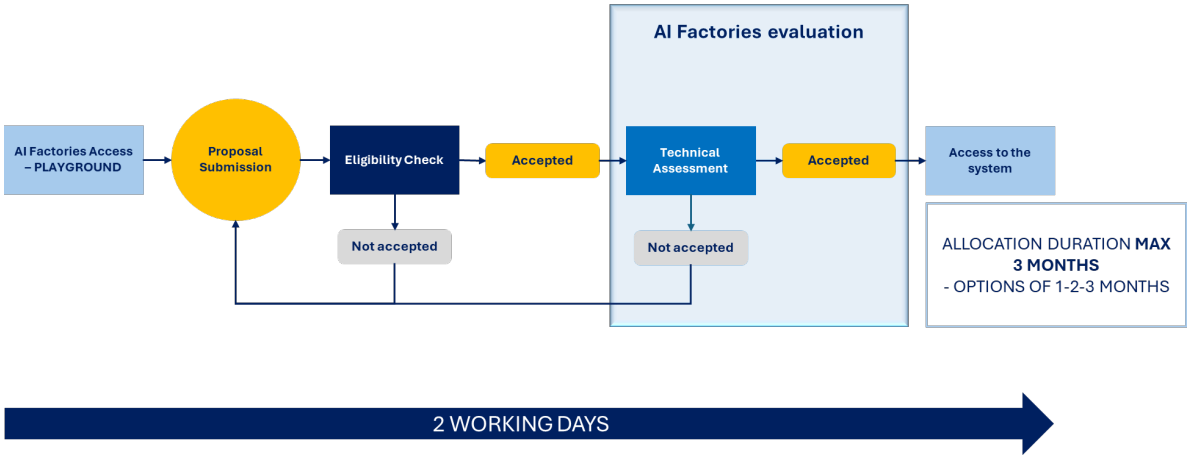

Figure 2 - Overview of the Playground AI Access Evaluation Process

3.3.1.3 Project extensions

No extensions can be granted for these access calls.

3.3.1.4 Access outcome reporting requirements and misuse mitigation

Successful applicants are required to submit a brief report on the outcome of their access including description of results of the machine learning training data outcome, issues encountered, and solutions implemented as well as information on energy use and carbon footprint of the project while using the supercomputers.
Misuse of resources includes:

- use for not intended purposes as described in the evaluated application,
- unethical behaviour and in particular activities that do not adhere to the ethics principles of the European Commission AI Act, or
- any other breach of the Acceptable Use Policy.

Such misuse is recorded and considered in future calls and proposals submitted from the same PI and user group.

Misuse of the access mode (for instance using the resources for other purposes than those documented in the request) may lead to the applicant being banned from applying for a certain period. Additionally, the allocated usage will be monitored on a monthly basis and in case of under-usage the PI will be requested to duly justify the reason. In case of repeated behaviour, the project will be penalised by a decrease of allocated resources.

3.3.2 Large Scale Access

3.3.2.1 Description

This access mode is intended for AI models and applications requiring more than 50,000 GPU hours for a maximum of one year, for a total allocation of up to 30% of the total share of the EU access time.

Access is granted within 10 working days from cut-off date provided that the proposal successfully passes the technical and peer-review evaluation organised by the EuroHPC JU Peer-review office. The selection process is supported by the AIF Industrial Innovation Group. Onboarding and application support is provided by the AI Factories currently participating in the calls.

Proposals granted Large Scale Access will receive continuous and guaranteed access to their share of compute for the allocated duration. In the event of disruptions, these workloads will be prioritised to ensure immediate restoration of access to resources.

3.3.2.2 Requirements

The eligibility requirements for applicants to Large Scale AI Access calls are based on criteria set out in section1.3. Users are eligible to apply to the Union's share of access time to EuroHPC AI-optimised supercomputers must come industry and should be residing, located in a Member State, or in a third country associated to Horizon 2020, the Digital Europe Programme or to Horizon Europe.

Applicants must submit a short application supporting the relevance of the application to the call (templates will be provided in the corresponding calls). The application must:

- Demonstrate that their application requires the use of large allocations - both in terms of compute and medium and/or long-term data storage - to reach the objective of their application.
- Demonstrate that the method, software and tools are technically adapted to the target AI-optimised supercomputer thereby demonstrating the feasibility of the project. To this end, applicants may rely on previous experience from Playground and Fast Lane access allocations.
- Provide a project plan, with adequate time schedule of the expected resource consumption during the lifetime of the project as well as a Gantt chart.
- Adhere to ethical usage of AI.
- Generated data and models remain under the ownership of the user. SMEs and startups may use the outcome of these allocations for commercial exploitation
- Commit to publish the results of their project[13]. Exceptionally, SMEs and startups are not obliged to make available the actual results, for example the trained AI models, to the public domain, however a report describing the achieved results should still be provided.

3.3.2.3 Evaluation process

Applications to access the Large Scale access mode are submitted through the EuroHPC Peer-review portal. All applications first pass an eligibility check by the EuroHPC Peer-review office and upon acceptance they are forwarded to the requested AI factories. The latter perform the necessary technical assessment. They also engage their local Industry Innovation Group members which perform the peer-review evaluation assessing the proposals based on the following criteria:

- Innovation, assessing the innovative nature of the application.
- Impact, assessing the potential impacts and contributions of the application.

Applications of EIC accelerator[14] challenge awards are passed without further evaluation and have priority over the rest of the proposals submitted within the same cut-off period.

[13] In case of disclosure issues due to the Intellectual Property from the industrial projects, the applicant should duly justify the cause of the limitation and submit a limited report to be used for public dissemination.

[14] European Innovation Council Accelerator https://eic.ec.europa.eu/eic-funding-opportunities/eic-accelerator_en

At the end of the process the AI Factory generates a ranking list of all applications received during the current cut-off and submits the results back to EuroHPC where the Executive Director is tasked to review and approve of the selected applications. The Executive Director may request additional review of selected applications by external experts, and may remove selected applications from the ranking list if the review is unsatisfactory. Finally, the list of awarded applications is confirmed to the AI Factory which then engages with the selected applications in order to initiated the system onboarding and support.

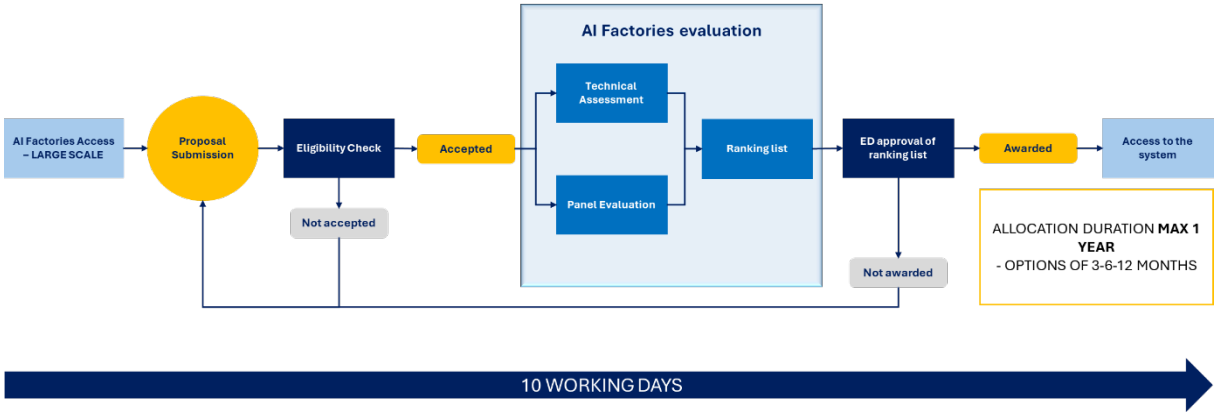

Figure 3 - Overview of the Large Scale AI access evaluation process

Allocations are made on a first-come-first-served basis until the resources reserved for the specific system are exhausted.

3.3.2.4 Confidentiality and Non-Disclosure

See §2.2.4

3.3.2.5 Project extensions

No extensions will be granted for these access calls.

3.3.2.6 Access outcome reporting requirements and misuse mitigation

See §3.3.1.4

4 ADDITIONAL ACCESS OPPORTUNITIES

4.1 OVERVIEW

This section introduces additional access opportunities for using supercomputing resources of the EuroHPC JU infrastructure. These opportunities cover exceptional access cases as well as the possibility for pay-per-usage access to the supercomputers.

The table below summarises these additional access modes.

Access Mode	Strategic Access	Emergency Access	Commercial Access
Allocation Duration	Defined by the GB	Defined by the ED	As necessary by the applicant
Recurrence	Upon request of the Union or based on GB decision	Continuous	Continuous
Possibility for project extension	Extension conditions defined in the GB decision	Upon decision of the ED	Yes
Share of resources (indicative)	Up to 10% of participating systems, aggregated for all selected initiatives All systems	As necessary and upon decision of the ED	Up to 20% of EuroHPC access time
Data storage needs	Large storage for medium to long term	Large storage for medium to long term	Large storage for medium to long term
Accessible to industry	Specific conditions to be defined by the respective GB decision	Upon decision of the ED	Yes
Scientific Peer-review	No	No	No
Technical assessment	Yes	No	No
Data Management Plan	Yes	No	No
Application type	Official request submitted to the GB	Official request submitted to the ED	Request submitted to EuroHPC Peer-review Sector
Prerequisites	None	None	None
Maximum Duration of evaluation process	No evaluation. Acceptance process subject to GB discussions	Immediate access upon ED decision	No evaluation

Table 3 – Additional Access Modes

4.2 STRATEGIC ACCESS

The Union can identify and propose to the EuroHPC JU Governing Board strategic European Initiatives to be granted access to EuroHPC supercomputers, **without the requirement of submitting to a Peer-Review process**, as defined in the previously mentioned Access Modes. Applications proposed for Strategic Access will be subject to technical review and have similar

obligations for reporting, data management and proper project management planning, as the rest of the applications accepted in the context of the other calls.

A maximum of 10% of EuroHPC supercomputers total access time can be allocated for strategic initiatives. The percentage limit is aggregated across all Strategic Access initiatives (i.e. at any certain point the total access time allocated to all strategic initiatives cannot exceed the 10% limit). The exact share of resources granted to a specific initiative is decided by the Governing Board which will task the Executive Director to implement and monitor the allocation process.

The Governing Board decision will indicate the amount of resources allocated as well as the maximum period of allocation. At any given time, the Governing Board may decide to adjust the percentage of resources allocated to a specific initiative in order to accommodate other strategic applications requiring EuroHPC supercomputing resources.

4.3 EMERGENCY ACCESS

As defined in the EuroHPC JU regulation, upon request of the Union, the Executive Director shall grant direct access to the EuroHPC supercomputers to initiatives that the Union considers essential for providing health- or climate-related or other crucial emergency support services for the public good, to emergency and crisis management situations or to cases that the Union considers essential for its security and defence. The Executive Director is tasked with evaluating such requests and, upon approval, will determine the exact conditions of the allocations (period, level of resources). The EuroHPC JU, in collaboration with the Hosting Entities, will guarantee the prompt onboarding and execution of the application following the occurrence of the urgent situation.

The procedure is the following:

1. In case of an emergency situation, the representative of the relevant Member State institution(s) sends a request to the dedicated EuroHPC JU functional mailbox (urgent.access@eurohpc-ju.europa.eu). To facilitate the process, technical details of the request should be submitted from the EuroHPC JU access portal, as an application in the Emergency Access continuously open call (https://access.eurohpc-ju.europa.eu/). In any case, the request includes the details of the emergency situation.
2. The Governing Board delegate of the European Commission notifies via phone/SMS the Executive Director of the JU that an emergency situation which requires HPC access is undergoing.
3. The Governing Board delegate submits the details of the emergency situation by email to the Executive Director of the JU and to a dedicated regularly monitored mailbox requesting emergency access to a EuroHPC supercomputer. The details should reference the system requesting access to, the technical details of the applications including resource requirements, an estimate of the access duration (in hours/days), the monitoring period of the event (time period in days), the reasons justifying the request, the details of the requesting authority(ies).
4. The Executive Director checks the availability of HPC resources and the technical requirements based on the details of the emergency situation and the list of scenarios and applications requiring emergency access. The Executive Director pre-warns the Hosting Entity to ensure a positive response within max 24 hours of receipt of the Request.

5. The EuroHPC JU Executive Director instructs the coordinator of the named supercomputer(s) by email within max 24 hours of receiving the Request.
6. The application support team ensures the efficient and timely execution of the application for the given emergency situation. If supplementary technical details are needed, a direct connection between the named supercomputer and the application owner is created.
7. Applications awarded emergency access are allowed to use the necessary amount of resources required for execution of the Request on the appointed HPC machine on a given (emergency) day, during the period of time defined in the request and within the overall allocation granted. The site ensures a timely execution when such an event occurs.
8. Before the conclusion of the awarding duration, the awarded application(s) may request extension(s) of the allocation time, access resources or/and adjusting the monitoring period.

4.4 COMMERCIAL ACCESS

EuroHPC JU can reserve up to 20% of the total available computing resources for commercial purposes, offering pay-per-use access to the EuroHPC supercomputers. Such access does not fall under any Peer-Review process or access mode as described in the previous sections.

The purpose of commercial access is to give the possibility to any organisation, be it an industrial entity or research/academic entity, of gaining access to HPC and AI resources without the necessity of following the Peer-Review based access procedures of the JU and the restrictions (temporal and/or functional) imposed by them. Therefore, any entity can buy access to the JU supercomputing resources provided that the usage falls within the JU acceptable usage policy (AUP). This AUP will adhere to the regulation provisions of commercial access according to which:

- The commercial usage of supercomputers is offered exclusively for civilian applications.
- Commercial access is provided to users from eligible countries (see eligibility criteria §3.1.3).

Users and applications adhering to the above two requirements should be eligible for commercial access provided that resources are available and the allocation limit of 20% has not been exhausted in the given time period. Users will be required to sign an AUP agreement, certifying compliance with the above conditions.

4.4.1 Pricing

The commercial services are offered on pay-per-use basis. Pricing is based on the actual systems' acquisition and operational costs. Pricing for each supercomputer and type of resource (e.g. GPU, CPU, storage) is calculated in collaboration with Hosting Entities and is aligned with commercial offerings of the Hosting Entity.

4.4.2 Allocation Process

Requests for commercial access should be submitted to the EuroHPC JU Peer-Review Sector. The PRS will further contact the applicant to discuss the details for the allocation including target system(s), duration of access, type and level of resources required, level of support needed and exact pricing conditions. The quality of service for commercial access is the same for all users.