Call for expression of interest in AI Gigafactories (AIGFs)

09 April 2025

The purpose of this call for expression of interest (CfEoI) is to call for ideas for establishing AI GigaFactories (AIGFs) in the European Union.

The document first describes what AIGFs are and then presents the objectives of the CfEoI and how to respond to it.

Background and Rationale for the Call

As part of the vision of making the EU an AI Continent[1], Europe has launched the AI Factories initiative based on Europe's world-class network of EuroHPC supercomputers. At the February 2025 AI Summit of Paris, President von der Leyen launched the idea of scaling up this initiative by investing in AI GigaFactories (AIGFs), which was then also reflected in the Competitiveness Compass along with the AI Factories investments.

The establishment of the first-ever AI GigaFactories on European soil will require a significant effort of investment and policy coordination, which should bring clear added value to EU competitiveness. Therefore, the AI GigaFactories will serve as one of the pilot cases of the Competitiveness Coordination Tool announced in the Competitiveness Compass[2].

From AI Factories to AI GigaFactories

AI Factories are open and dynamic AI ecosystems formed around the public network of Europe's world-leading EuroHPC supercomputers. They will aim at further supporting the EU AI industrial and research ecosystem by bringing together key material and human resources needed to develop large generative trustworthy AI models and applications: AI-optimised supercomputers, associated data centres, programming and training facilities, and human capital to use these resources effectively.

The infrastructure and services AI Factories offer are essential for fully unlocking the potential of AI across Europe**,** enabling AI companies, in particular SMEs and startups, as well as researchers in different scientific disciplines. The AI Factories will be supporting the development of AI solutions tailored to the needs of different industrial sectors, public authorities and scientific disciplines. The European Commission, together with the Member States is mobilising close to EUR 2 billion under the EuroHPC Joint Undertaking for setting up the AI Factories across the Union. So far, 13 AI Factories have been selected bringing together 17 EU Member States and 2 other Participating States of the EuroHPC Joint Undertaking.

[1] AI Continent Action plan. COM(2025) 165, 09.04.2025

[2] A Competitiveness Compass for the EU. COM(2025) 30 final, 29.1.2025.

AI Gigafactories (AIGFs) will build on the concept of AI Factories and take it to the next level. These will be large-scale AI compute infrastructure facilities (including the required data storage infrastructure facilities) designed to develop, train, and deploy very large AI models and applications at an unprecedented scale (e.g., AI models in the order of hundreds of trillions of parameters). They will be integrating massive computing power (e.g., beyond 100,000 advanced AI chips[3] compared to 25,000 in the largest AI Factory's supercomputers), together with energy-efficient data centres, and AI-driven automation to optimise AI model training, inference, and deployment.

AIGFs will provide a world-class AI compute infrastructure for European researchers, entrepreneurs, industries. They shall strengthen the European industry, enable the development of entirely new AI solutions and ensure the EU's competitiveness and sovereignty as an AI continent. Considering the massive amount of investment necessary to build and operate AIGFs (indicatively estimated at the level of EUR 3-5 billion per AIGF), a more industrial and market-driven approach is envisaged to be put in place for establishing them, that could take the form of a public-private partnership between interested industry participants and the EU and Member States, as well as other EuroHPC Participating States.

The public interest in co-investing with industry players in AIGFs lies in expanding and strengthening the European AI compute infrastructure so that the next generation of AI models and applications for scientific and industrial use can be developed, implemented and put into application in Europe. Just as the AI Factories, the AI Gigafactories will be open to researchers, startups and industry across Member States, under specific access conditions.

For reference, a portion of the capital expenditure (CAPEX) investments of an AIGF might be covered by the public authorities (EU and Member States[4]), up to a predefined maximum cap (up to 35%). The exact level of support would be determined on a case-by-case basis and subject to a duly justified need. The remaining investment would be covered by private partners (industry and public and/or private investment funds). The operational expenditure (OPEX) of an AIGF will be the sole responsibility of the private partners.

The financial participation of the public authorities in an AIGF would reflect the share of access time of the AIGF reserved for public (scientific or other) applications. The public funds could also be used, within the established limits, to help de-risk private investments[5].

[3] Reference here is NVIDIA's H100 GPUs or equivalent. However, proposers may also consider providing AI compute services that are based on a combination of different types of AI processors (GPUs), to cover both large AI model training, but also AI finetuning, inference and deployment.

[4] AIGFs can benefit from public funding originating at both the EU and Member State levels, utilizing a flexible range of mechanisms. While EU contributions could normally flow via the EuroHPC Joint Undertaking, the exact channels will align with the established framework for such strategic investments. At the national level, Member States have the flexibility to contribute through various instruments – including, but not limited to, direct grants, loan guarantees, equity injections (potentially via National Promotional Banks/Institutions), and mobilizing funds from national budgets, cohesion funds, or any available RRF (Recovery and Resilience Facility) capacity.

[5] De-risking private investments in this context refers to mechanisms where public funds reduce the financial exposure or uncertainty faced by private partners, thereby making the investment proposition more attractive and viable. Beyond directly lowering the initial capital required from private sources through co-

Objective of the call for expression of interest

This CfEoI has the objective of gathering preliminary information from interested Consortia involving European industry, private or public investors (European and/or international) and one or more Participating States of the EuroHPC Joint Undertaking for establishing and operating an AIGF. It is **not a formal proposal** for setting up an AIGF and will not be considered as representing any kind of commitment on the side of the European Commission, private/industrial partners and/or the EuroHPC Participating States.

Who can respond?

This CfEoI is open to all European private entities, EU Member States and other EuroHPC Participating States which are interested in submitting a proposal describing their potential plans for establishing an AIGF facility in the European Union.

The coordinator of the proposal to this CfEoI should be either an EU-headquartered private entity or an EU Member State. Other industrial entities can also participate in the Consortia as far as they are established or located in a EuroHPC Participating State. International public and private investors can also participate in the Consortia.

Any proposal submitted by a Consortium in this CfEoI does not bind the Consortium partners or any of the included EuroHPC Participating State(s).

The outcome of the CfEoI will therefore be an indicative, non-binding list of potential candidate/interested Consortia having plans to establish an AIGF facility in the EU with whom the European Commission can further engage in more detailed discussions on setting up an AIGF infrastructure facility in the EU.

There is no financial envelope associated to this call for expression of interest. None of the submitted proposals will receive any EU funding under this specific call for expression of interest.

Information for interested EU Member States: The AI Gigafactories initiative could be STEP relevant, contributing to the STEP objectives of reducing strategic dependencies or demonstrating its innovation potential for the Single Market.

How to respond?

Interested Consortia (industry, private investors and one or more EuroHPC Participating States) are invited to submit a proposal on how to implement an AI Gigafactory providing information outlined in points 1. to 6. below.

We would expect a submission of up to 15 pages maximum per proposal. The submissions should be sent by a representative of the Consortium, via email to the following functional mailbox: gigafactories@eurohpc-ju.europa.eu

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funding CAPEX, EU and Member State contributions can play a crucial role by providing financial guarantees, strengthening bankability and confidence, and/or absorbing initial risk. The specific de-risking instruments deployed would depend on the final structure agreed upon for each AIGF and compliance with relevant financial regulations and State aid rules.

The initial submission deadline of this call for expression of interest is Friday 20 June 2025, 17h00.

Information to be provided by the Consortium in response to this call:

(1) An executive summary of your project proposal, including among other information on partners involved, possible geographic location and budget.

(2) Brief description of the project (up to 4 pages)

(i) Provide a description of the proposed project. Outline the objectives of the project, including the intended users and types of services to be provided, the targets to reach, the possible implementation approach (that may also include *the possibility to proceed through a phased approach*[6]) and the required time to build and operate the AIGF, overall project duration, and its major milestones.

(ii) Provide a short description of the main building blocks of the AIGF (the Data Centre and its size, the HPC/AI Architectures, the software stack and its applications and services, the secure trusted environments for Industry, the cooling systems, etc.).

(3) Technical feasibility analysis: Geographical location, connection to the energy grid, environmental sustainability (up to 2 pages)

(i) Describe the possible location of the AIGF in the European Union, and why such location is adequate for building/hosting an AIGF (in terms of existing or new building and other infrastructure facilities, including necessary permitting procedures, the available network connectivity, water supply needs, the connection to the environment and the energy grid, etc., and their possible upgrading capabilities to adapt them to the AIGF needs).

(ii) Describe the energy requirements for the AIGF and its environmental sustainability requirements in the long term, privileging renewable energy, and how these would be covered, including possible business agreement(s) you plan with power suppliers or other.

(4) The Consortium and its members, the partnership approach (1-2 pages)

(i) Provide a description and roles of your Consortium partners (private partners, private or public financial institutions, EU Member States and/or other EuroHPC Participating States).

(ii) Describe also the way you foresee your Consortium will operate and its

[6] A phased implementation approach means that proposers may opt for implementing the AIGF project in two or three consecutive phases for reducing the financial risk: in the first phase, for example, they would commit to deploy and operate a part of the AIGF (e.g., based on a data storage and compute infrastructure comprising up to 50 000+ GPUs and its corresponding power supply), while in the next one or two phases they would deploy the rest of the AIGF infrastructure. Total deployment time may be of the order of 2-3 years for the full AIGF.

decision-making approach and describe its potential governance structure.

(5) Financial feasibility analysis: The budget, the market, and the business model of the AIGF (up to 7 pages)

Applicants must provide a preliminary financial feasibility analysis demonstrating the economic viability and long-term sustainability of the AIGF. The analysis should cover the following aspects:

(i) ***Budget Overview and Resource Requirements***: Provide an overview of the main financial and human resources required for establishing and operating the AIGF. If possible, provide also a breakdown of the AIGF budget in terms of CAPEX and OPEX (including facilities, energy consumption, maintenance, staffing, software and hardware operational costs and upgrades, and other recurring costs).

(ii) ***Financial Structure and Funding Strategy***: Explain the preliminary financial arrangement(s) of your project, including:

- A first estimated total investment size and projected funding sources (e.g., equity, quasi-equity, subordinated debt, senior debt, etc.); the main already available or expected financial contributors, both public and private; and an outline of your strategy for securing additional public or private funding, including for example potential public or private investors, venture capital, and industry partnerships.
- Specify the anticipated financial support your project would need from public authorities, including grants, subsidies, and co-financing from EU and national governments, as well as *financial facilities* that may become available from the European Investment Bank (EIB) (e.g., direct loans), the European Investment Fund (EIF) (e.g., infrastructure funds, private equity, national promotional banks, or other public financial institutions. Eventually specify these, for each of the phases of your project (in case you opt for a phased implementation approach).

(iii) ***Market Analysis and Competitive Landscape:***

- Provide an overview of the AI supercomputing market size and its growth projections over the next 3-5 years) and the key customer demand drivers for AI supercomputing services.
- Describe the possible potential target customers of your project and their geographic distribution, specifying potential industries and application sectors that will benefit from AIGF services.
- Provide a short description of the competitive landscape your project will face.

(iv) ***Business and Revenue Generation model, and Commercial Viability***:

- Describe the business model envisaged for the AIGF, including the primary

services and applications to be offered, and outline the expected customer pricing models of your project and the commercial viability of this model.

- Explain how your model foresees reaching mid- to long-term revenue generation sustainability and what are the major key success factors and key risks for enabling the model or putting it at risk.

(6) Proposal contact point

Please indicate a contact point for your proposal (e.g. the coordinator of your proposal). This contact point is required to facilitate contact making with the European Commission, with the aim of discussing/ further developing the proposed AIGF ideas expressed in the Consortium proposal.

ALL INFORMATION PROVIDED IN THE PROPOSAL WILL BE TREATED WITH THE HIGHEST LEVEL OF CONFIDENTIALITY AND WILL NOT BE DISCLOSED TO ANY UNAUTHORISED PARTIES

What happens once a proposal is submitted:

The list of submitted proposals, with an executive summary description of the proposal and its Consortium partners, will be shared with the Participating States of the EuroHPC Governing Board.

The European Commission will then engage with all the Consortia having submitted proposals in more detailed discussions about the conditions and needs, including financial ones, of setting up an AIGF infrastructure facility in the EU.

In parallel to the above, the European Commission will:

- Define the modalities of the InvestAI Financial Facility announced at the Paris AI Summit (see below);
- Clarify the state-aid rules considerations;
- Secure EU budget for supporting one or more of the AI Gigafactories.

The European Commission is exploring the possibility of establishing, by end 2025, ***InvestAI, a dedicated financial facility/scheme*** with the eventual participation of the EIB / EIF, that could be expanded to include national and regional promotional banks and private investors. Once established, such financial facility could become a (financing) partner of interested AIGF Consortia.

Following the outcomes of the above, the European Commission will be exploring the possibility to publish the official call for the establishment of one or more AI Gigafactories in the European Union in the fourth quarter of 2025 (under the EuroHPC Joint Undertaking).

The European Commission contact point for further questions regarding this call:

CNECT-C1@ec.europa.eu. The questions will be responded electronically.