

Al Gigafactories

State of Play & Way Forward

EuroHPC Governing Board

22/05/2025

A Strategic Imperative for Europe



1 Von der Leyen's Vision

Up to 5 AIGFs to supercharge Europe's AI approach through strategic infrastructure investment.

Ensuring EU Sovereignty

Establishing leadership in large-scale AI development, training and inference.



Cornerstone Infrastructure

AIGFs as the foundation of the AI Continent Action Plan.



Novel Partnership Model

Implementing an ambitious Public-Private approach.

The Al Continent Action plan

(adopted on 9th April, https://digital-strategy.ec.europa.eu/en/library/ai-continent-action-plan)



AI Factories

- Dynamic ecosystems, including Al-optimised supercomputers, data capacities, programming and training facilities, and human capital to support the EU Al industrial and research ecosystems in developing large Al models and applications
- Novel approach to AI innovation based on a network of public supercomputers providing an open environment to AI developers
- Health/Life Science; Manufacturing; Climate/Environment; Defence; Mobility; Energy; Space; Finance; Cybersecurity; Agri-tech/Agrifood; Education/Arts/Culture; and more
- 13 AI Factories across 17 Member States and two EuroHPC Participating States. Expecting additional 2+ AIFs and around 8 AIF Antennas (both calls ongoing)
- AIFs will be **interconnected** and establish a collaborative framework for effective networking



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Al Gigafactories

- Very large-scale facilities designed to develop, train, and deploy the next generation most complex Al models at an unprecedented scale (e.g., tens of trillions of parameters).
- Essential for Europe to be able to **compete on the global level** and ensure its **strategic autonomy in science and in critical industrial sectors**.
- Building on the concept of Al Factories, taking it to the next level by integrating coherently massive computing power, beyond 100 000 advanced Al processors.
- Focus on **power capacity**, **supply chain**, **cutting-edge networks**, **energy-efficiency**, and **Al-driven automation**.
- Federated with the EuroHPC network of Al Factories and sovereign cloud.
- Need for **public-private partnerships** given the magnitude of the required investments.



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Call for Expression of Interest (CfEol) Launched: Gauging Interest

9 April 2025 —

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Call for Expression of Interest launched by EuroHPC JU. Non-binding exploratory phase begins. Expecting project ideas, partnership approach, and technical and financial feasibility

Private Sector Engagement

Strong interest from tech companies, data centres, energy providers, and European and International investment funds.

Current Status

Solid support from EuroHPC Governing Board. EU Member States reaching out.

20 June 2025

Deadline for submissions.

Several promising proposals expected to be submitted.

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Next Steps



The AIGF Model¹ → a PPP Financial contributions

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Blended finance model combining public and private resources.

Potential Public Contribution

(from EU and Participating States channeled via the EuroHPC)

- Grants (up to 35%) of CAPEX (of the compute infrastructure)
 - → EU and PS can have different public contribution rates
- Other options for AIGFs are possible (e.g., purchased guaranteed access time priced at market conditions for a given period of time, etc,)

Private & Repayable Finance

At least ~65% of CAPEX + 100% of OPEX from industry and/or private investors, with or without public financial investments (EIBG and NPBs).

(1) Financial structure remains adaptable to specific project needs and Member State contexts.

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Funding Sources

EU contribution

Funding mobilisation from EU Programmes (DEP, HE, CEF)

Participating State(s) Resources



Private Sector Resources

Direct company investments,

Equity investments, loans, and in-kind contributions (land, facilities, power...)

InvestAl Facility

Coordinated with EIB Group under InvestEU¹

(1) Guarantee programme to de-risk part of the investment and attract private capital.



Funding Sources: Resources from Participating States

Direct National Contributions for grants

Cohesion funds - possible STEP reprogramming

National programmes

RRF: reprogramming and transferring to EuroHPC by August 2026 (to be confirmed)



InvestAl Facility: Mobilising Repayable Finance

Concept: Coordination Framework

Facilitates repayable finance on a project-by-project basis under the InvestEU umbrella.



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Role of European Investment Bank Group

- EIF provides equity via intermediary funds.
- EIB offers debt financing.
- EIBG mobilises additional private investment.
- Support to proponents for bankability and economic feasibility.



Political Actions Underway

- Increasing InvestEU financing capacity.
- Establishing advisory support for AIGFs promoters.

Project workflow for submitted AIGFs proposals

Initial/Preliminary Assessment

Receive proposals for review, screening and cleaning.

Information Sharing

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- Distribute essential information to Governing Board.
- Eventually, share need-to-know information to potential investors (by putting in place NDAs).

Individual Meetings

Consortium meetings with Commission + EIBG + relevant Member States / other potential interested Participating States

Development Decision

Further develop promising proposals or abandon unviable ones.

Towards the official call: Possible Call text structure

The call text will be a formal <u>Call for Expression of Interest (CfEoI)</u> similar to that of the AI Factories, providing potential applicants with clear guidance on all aspects of proposal development.



Aim and Project Description

Comprehensive overview of project objectives, workplan, milestones, expected outcomes, and alignment with European AI strategy.

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Partnership Structure and Governance

Guidelines for consortium composition, roles and expertise of members, and governance links to the public partners (EU and PS)

Technical Specifications

Detailed requirements covering facility location **in a Member State**, technological capabilities, network infrastructure, energy infrastructure, possible environmental considerations.

Financial Feasibility

Requirements for business models, funding structures, and evidence of commercial viability, including long-term sustainability planning.

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Call Documents

- 1. Call for Expression of Interest
- 2. Draft AI Gigafactory Hosting Agreement
- 3. Draft ToR of the InvestAI facility
- 4. State aid rules and guidance
- 5. EU Framework contracts for major technology providers

Towards the official call: Possible Proposers



Consortium Composition

• <u>COORDINATOR</u>: could be an existing hosting entity / private companies

PRIVATE OR PUBLICLY CONTROLLED COMPANIES OR ENTITIES:

- Technology providers (compute, networking, cooling,...)
- System integrators
- Software and cloud service providers
- Applications providers
- Security service providers
- Energy providers
- ▶ ...
- NVESTORS:
 - Private Investors
 - Public Institutions or agencies
 - National or regional promotional banks

Towards the official call: Possible Eligibility Conditions



Proposals to be submitted, by either

- 1. an EU-headquartered Coordinating company, or
- 2. <u>an EU MS</u> (could be represented by the hosting entity)

AIGF Location: only in a Member State

The AIGF Proposal needs to be backed by the EU MS hosting the AIGF

Participants (private companies and investors) from third countries:

- Call open to participation from 3rd countries' entities
- All participants controlled by <u>non-like-minded countries are</u> <u>non eligible</u>, including those located in a PS

Towards the official call: Possible Additional Conditions to Consider

Possible Additional Conditions

- Secure and trusted AIGFs
- Location: Could be a new facility or an extension of an existing one, including those based on an AI Factory
- Sustainable energy provisions
- Financial Viability and Business model
- Stable management structure
- Public interest oversight
 - ➢ "Scrutiny of access", e.g. financial monitoring, security, etc.
 - Possibility to consider, in the procurement process, an <u>EU framework contract with major Technology</u> <u>Providers, e.g. of the compute infrastructure</u>
- For dual-use facilities: Dedicated measures to be considered (security clearance, restricted access physical and virtual, etc.)

Towards the official call: Access Conditions

Access Conditions to the AIGF

Public access time

Directly proportional to the public investment in the CAPEX of the AIGF's compute infrastructure Public access rights will be intended for:

- Public entities (Research, science and academia, public administrations, etc.)
- Start-ups and SMEs

<u>Commercial access</u> (governed by the coordinating AIGF Partner)

→ Principle: operating the AIGF (AI, compute and data) services at market prices

> Exclusion of non-like-minded countries and their entities, wherever they are located

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Towards the Official Call: Selection Criteria



Potential Selection Criteria

Technical Part of the Proposal:

- Objectives and technical quality of the proposal
- Quality of the workplan
- □ Quality of the physical, IT and networking infrastructure
- □ Sustainability and energy efficiency
- Consortium experience and knowhow in setting up similar largescale facilities

Potential Impact:

- □ Quality of service, including security and trustworthiness
- □ EU-added value and the impact on the European AI ecosystem

Financial Feasibility:

- □ Investment Commitments of the MS/PS and the private partners
- Quality and financial viability of the proposed business model (due diligence) – to be carried out by a financial institution

Selection procedure under the responsibility of the EuroHPC JU





Expert Panel Review

Thorough assessment by independent technical specialists.

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Financial Evaluation

Comprehensive due diligence conducted by a financial institution

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Selection by the EuroHPC JU

Final decision with guidance on contracts, financing, and procurement rules/procedures

The multi-stage selection ensures transparency, thoroughness and strategic alignment with EU priorities for AI infrastructure.

