### **DRAFT** for Discussion

# Al Gigafactories

State of Play & Way Forward

EuroHPC Governing Board

22/05/2025



## A Strategic Imperative for Europe





### 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)

Al Office

AI (Giga)Factories

Cloud & Al Development Act

**Apply AI Strategy** 

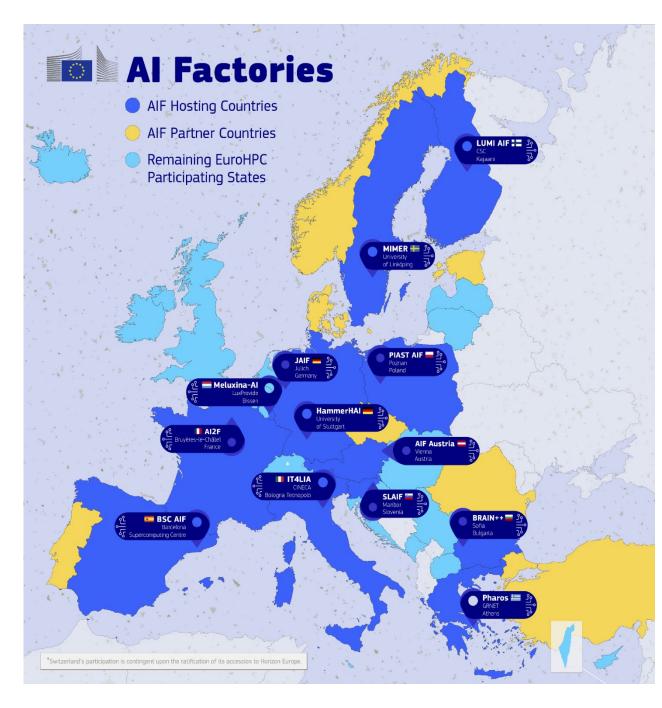
## **Al Continent**

**European Strategy for Data** 

European Al Research Council **European Digital Innovation Hubs** 

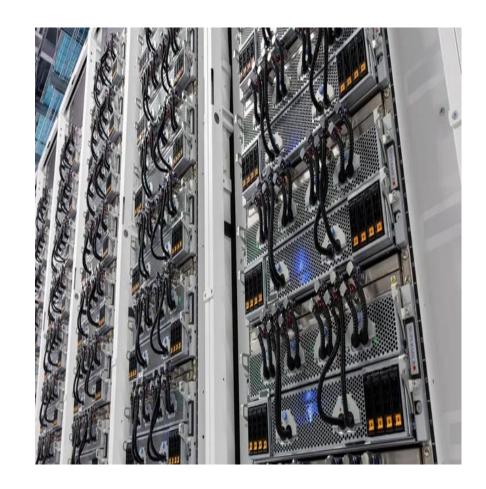
### **Al Factories**

- 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 Al Factories across 17 Member States and two EuroHPC Participating States. Expecting additional 2+ AlFs and around 8 AlF Antennas (both calls ongoing)
- AIFs will be interconnected and establish a collaborative framework for effective networking

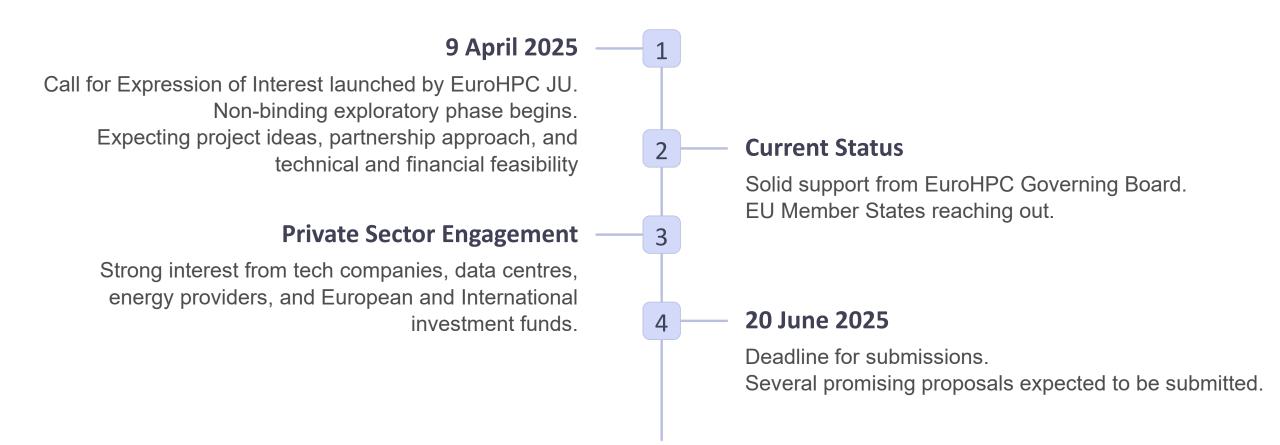


## **Al Gigafactories**

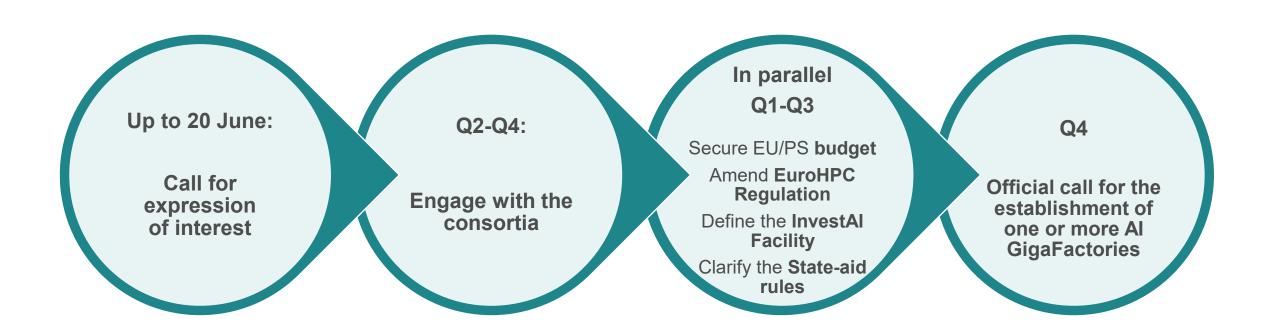
- Very large-scale facilities designed to develop, train, and deploy the next generation most complex Al models at an unprecedented scale (e.g., tens of trillions of parameters).
- Essential for Europe to be able to compete on the global level and ensure its strategic autonomy in science and in critical 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.



# Call for Expression of Interest (CfEoI) Launched: Gauging Interest



## **Next Steps**



# The AIGF Model<sup>1</sup> → a PPP Financial contributions

**Core Structure** 000 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** 

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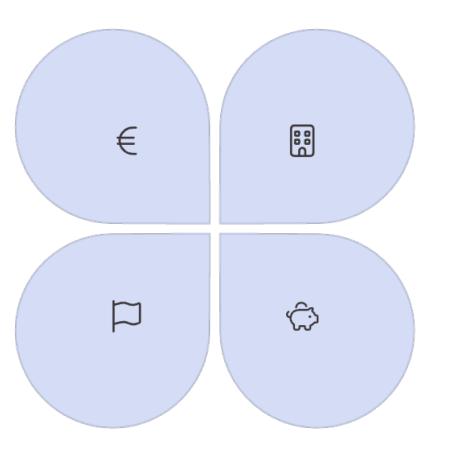
At least ~65% of CAPEX + 100% of OPEX from industry and/or private investors, with or without public financial investments (EIBG and NPBs).

## **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 InvestEU<sup>1</sup>

(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)

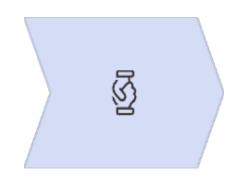
**Equity and Debt** 

**National Promotional Banks** 

Top-ups in InvestEU:

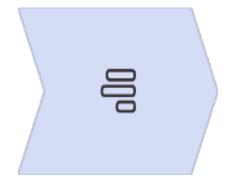
MS compartment (including funds from the RRF)

## InvestAl Facility: Mobilising Repayable Finance



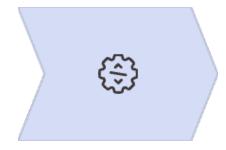
#### **Concept: Coordination Framework**

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



#### **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**

- 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.



#### **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 <u>in a Member State</u>, 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.



#### **Call Documents**

- 1. Call for Expression of Interest
- 2. Draft AI Gigafactory Hosting Agreement
- 3. Draft ToR of the InvestAl 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
  - **>** ...
- INVESTORS:
  - 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 3<sup>rd</sup> 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 Al 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 **EU framework contract with major Technology Providers, e.g, of the compute infrastructure**
- **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

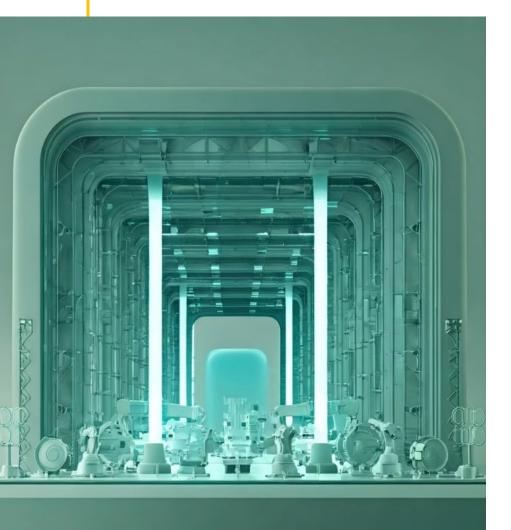
Directly proportional to the public investment in the CAPEX of the AIGF's compute infrastructure Public access rights will be intended for:

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

Commercial access (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

### **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



1

### **Expert Panel Review**

Thorough assessment by independent technical specialists.

2

#### **Financial Evaluation**

Comprehensive due diligence conducted by a financial institution

3

### **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.

# Thank you