

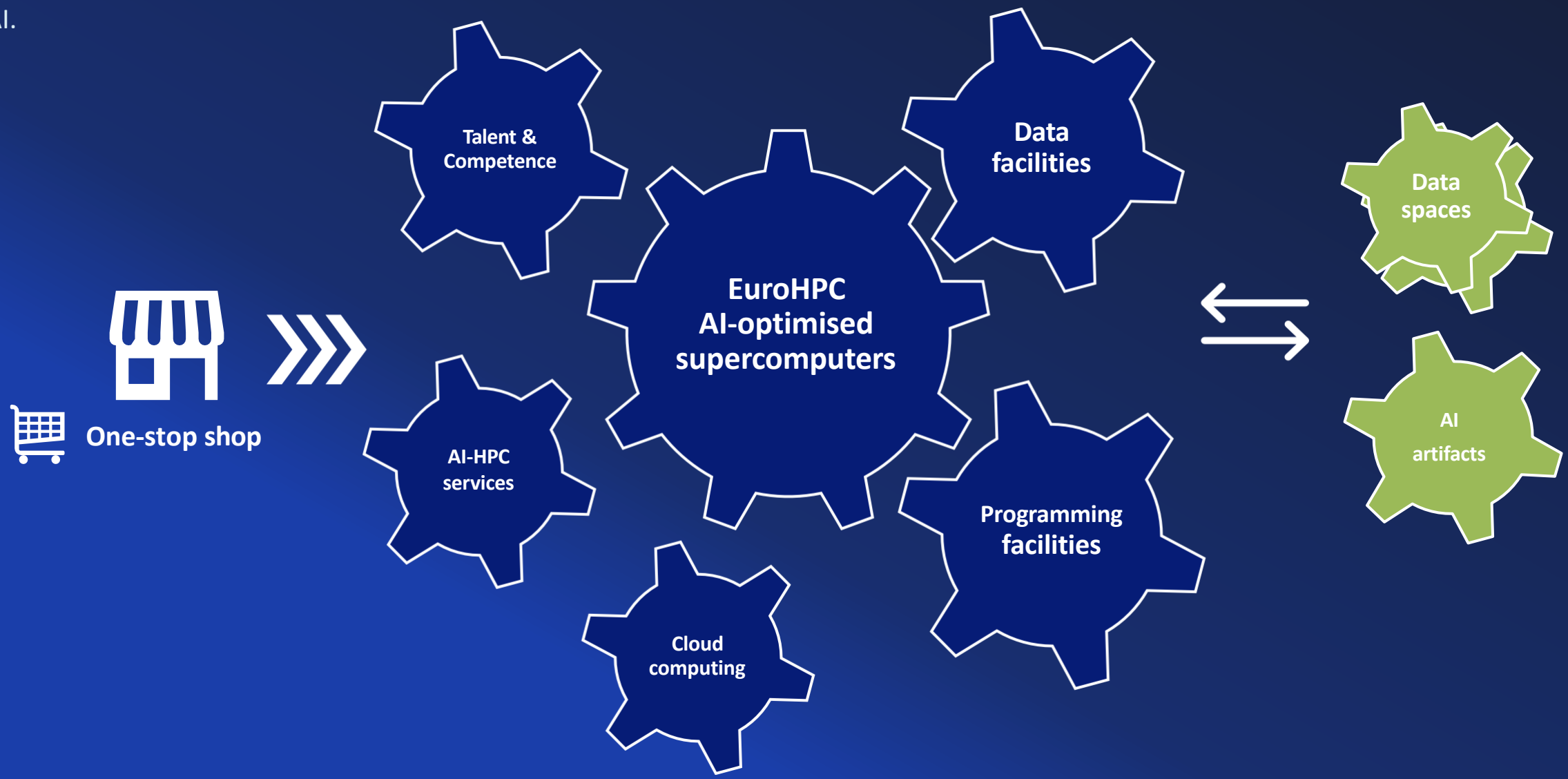
EuroHPC AI Factories and Antennas

EuroHPC
Joint Undertaking

Vangelis Floros
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AI Factories

AI Factories are dynamic ecosystems 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 to take advantage of AI technology capabilities in the European Union, and for the development of skills and knowledge in the domain of AI.



AI FACTORIES SERVICES

EuroHPC Joint Undertaking

Sophisticated hardware and software environment

Data

Expert consultation

AI Factories

Testing and Modelling

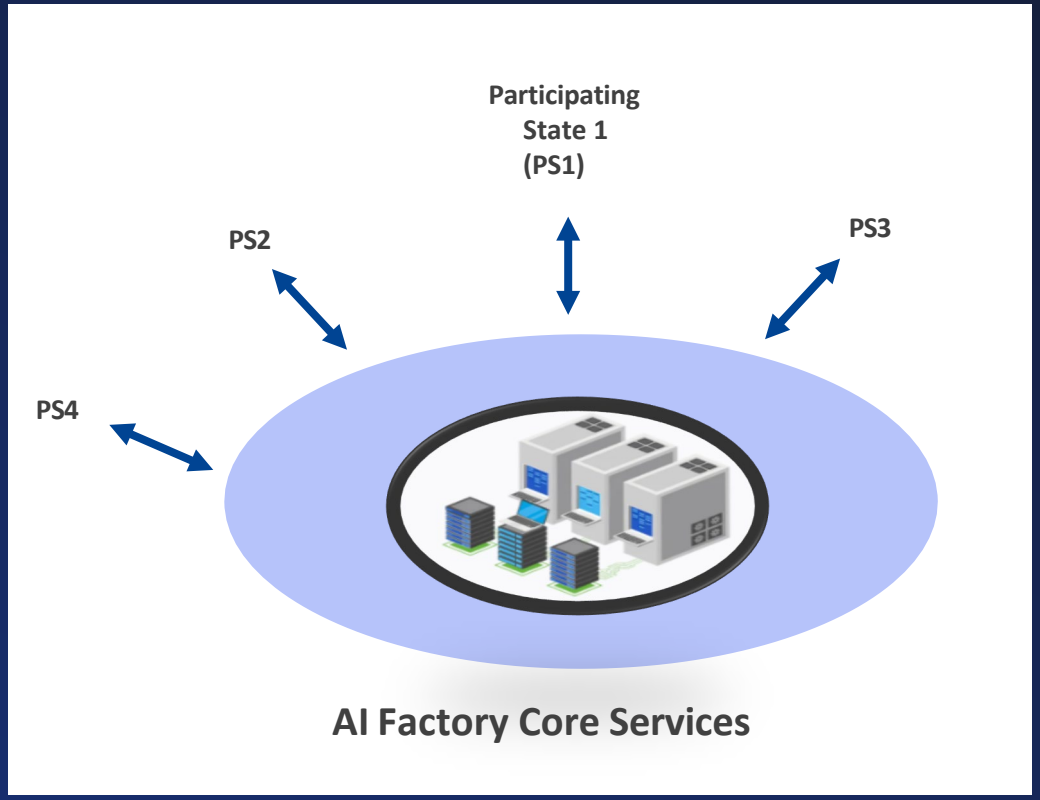
AI legislations consultation

Software and hardware expertise



AI Factory Antennas

- **National AIF Antennas** associated to the Hosting AIF (AI-optimised supercomputer and core services)
  - A way to create a **network of AIFs** all over the EU **without having to invest in a dedicated supercomputer** every time
  - Provide services and algorithmic support to the **national AI ecosystem**
  - **Ensure access** to enhanced AI-optimised computing capacity (remote)



AI FACTORIES

BUILDING AN AI ECOSYSTEM IN EUROPE

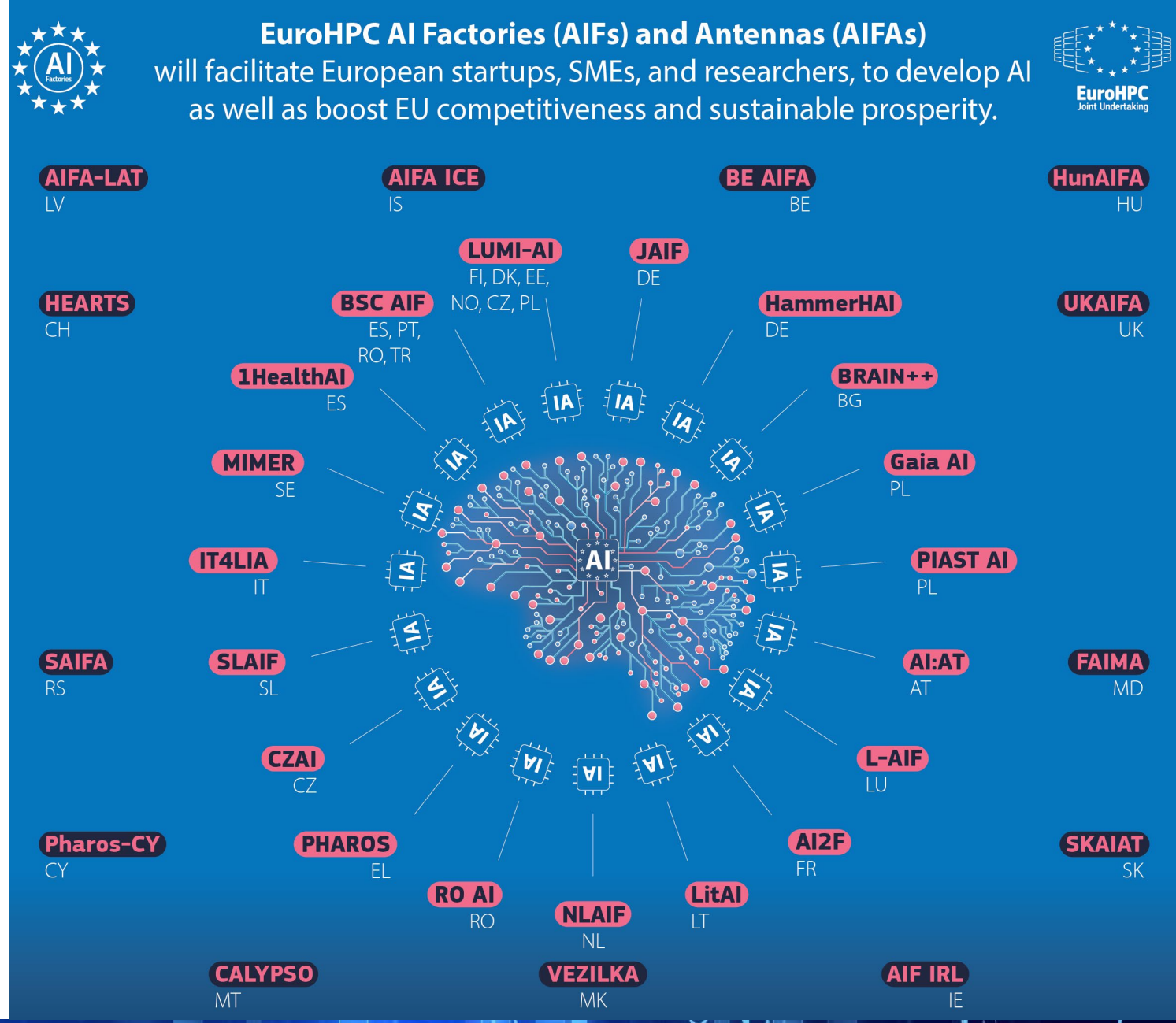
€2.6 billion investment

19 AI Factories in 16 European countries

13 AI Factory **Antennas**

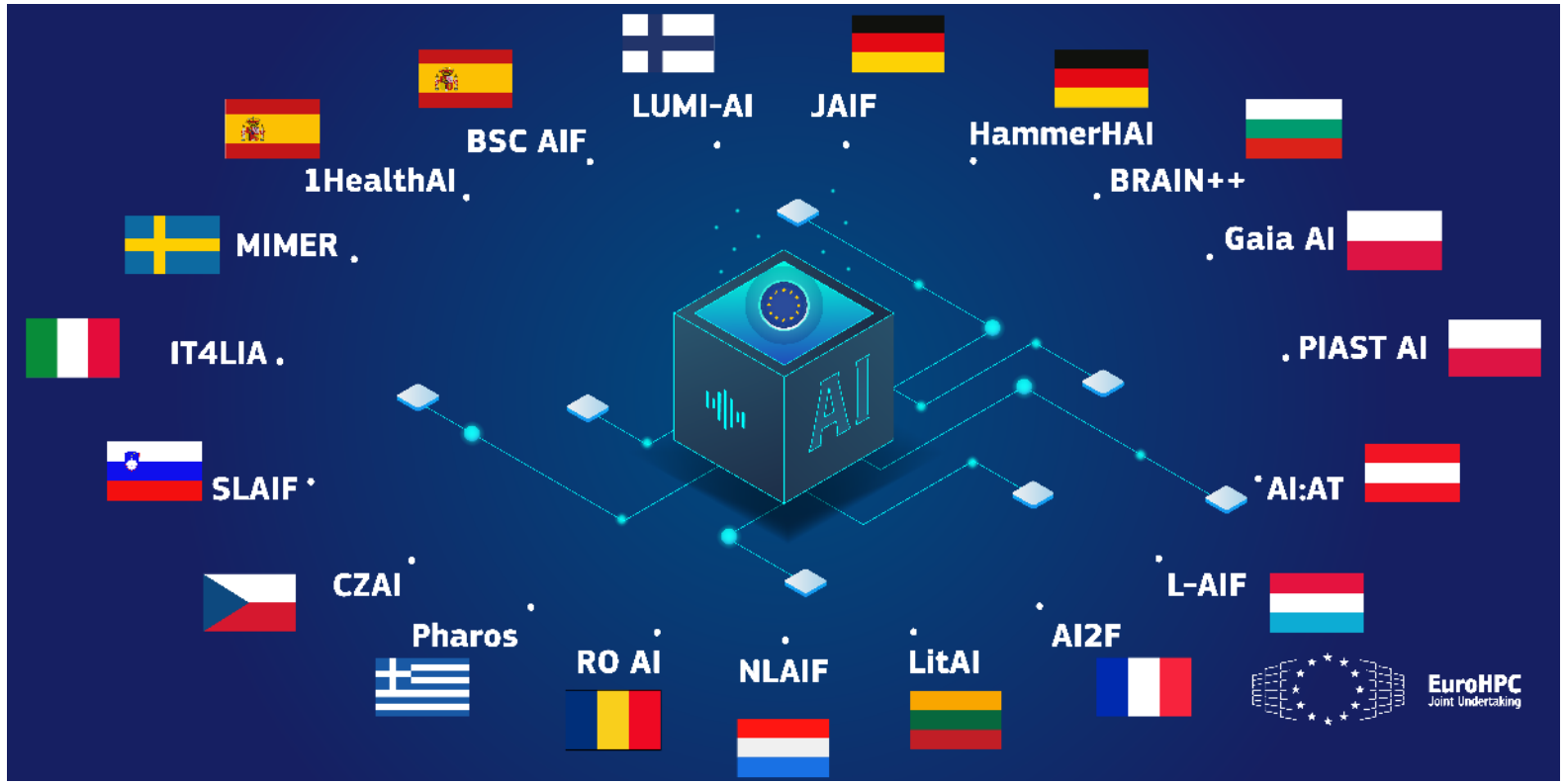
EuroHPC AI Factories (AIFs) and Antennas (AIFAs)
will facilitate European startups, SMEs, and researchers, to develop AI as well as boost EU competitiveness and sustainable prosperity.

EuroHPC Joint Undertaking



19 AI FACTORIES → MORE THAN 30 KEY SECTORS

- Agriculture
- Food
- Health
- Cybersecurity
- Life Sciences
- Finance
- Biotechnology
- Fintech
- Robotics
- Earth Sciences
- Aerospace
- Physics
- Consumer Goods
- Dual Use



- Green economy
- Law Tech
- Digital Society
- Culture
- Sustainability
- Languages
- Manufacturing
- Engineering
- Media
- Public sector
- Insurance
- Material Sciences
- Space
- Universe
- Gaming Industry



AI System procurements

Contracted – Under installation
- **MN5** Upgrade (BSC-AIF | BSC) (Awarded to FSAS/Telefonica)
- **HammerHAI** (HLRS) (Awarded to HPE)
- **MIMER** (Linköping University) (Awarded to Bull)
- **IT4LIA** (CINECA) (Awarded to E4/Dell)
- **MeluXina AI** (L-AIF | LuxProvide) (Awarded to E4/Dell)
- **LUMI AI** (LAIF | CSC) (Awarded to Bull)

Call for Tenders (Competitive Dialogue)
- **AI:AT** (AIF Austria | ACA) (Dialogue stage)
- **NLAIF** (AIFNL) (Deadline) (Dialogue stage)
- **PIAST AIF** (PSNC) (Call for participation deadline 10/12/2026)

Call for Tenders (Open Procedure)
- **Discoverer++** (BRAIN++ | Sofia Tech Park) (closed 16/10/2026)

Under preparation
- **Vega-AI** (SLAIF | IZUM)
- **CZAI** (IT4I)
- **ROAI** (ICI Bucharest)
- **1HealthAI** (CESGA)
- **LitAI** (VU)
- **GAIA** (Cyfronet)

AIFs relying on systems from previous calls (Operational or Under Installation)
- **JUPITER** (JAIF | JSC)
- **Alice Recoque** (AI2F | GENCI)
- **Daedalus** (Pharos | GRNET)



EUROHPC SUPERCOMPUTERS

JUPITER



LUMI



Leonardo/LISA



MareNostrum5



MeluXina



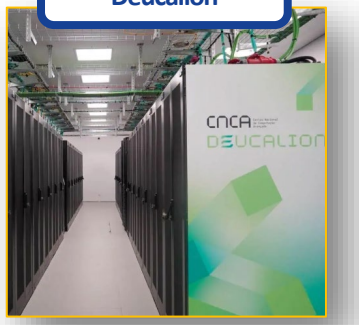
Discoverer/Discoverer+



DAEDALUS



Deucalion



Arrhenius



Ongoing Development

Alice Recoque



CASPIr



LEVENTE



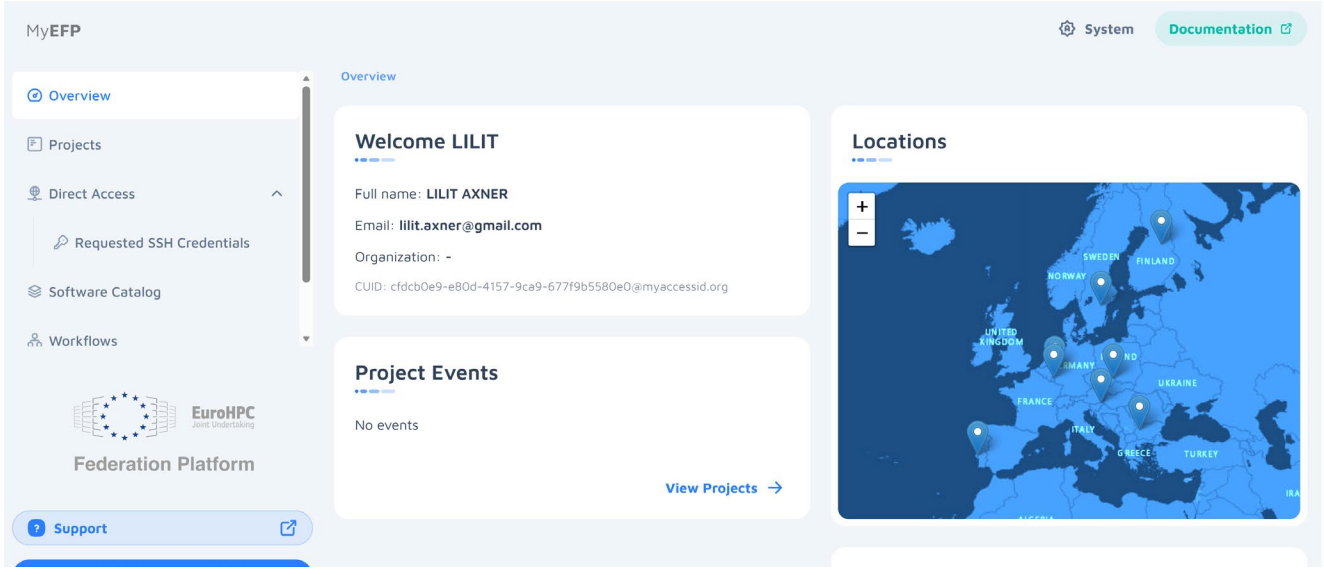
INNOVATE
Industrial System

EuroHPC Federation Platform

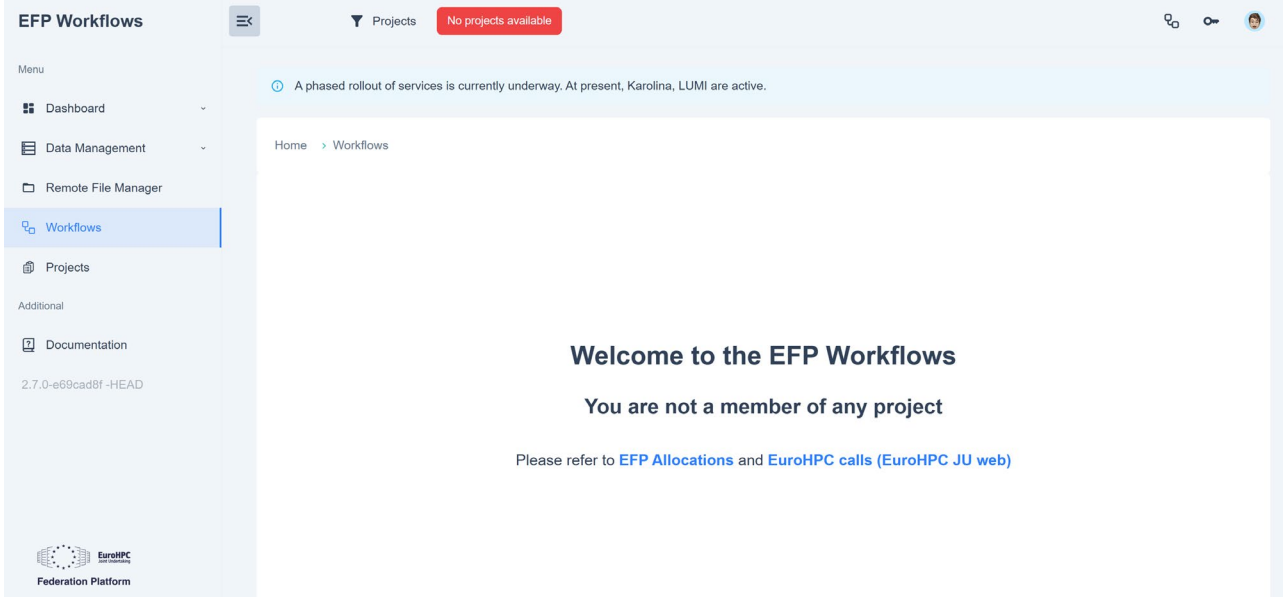
The **EuroHPC Federation Platform (EFP)** is a unified "one-stop shop" gateway developed by EuroHPC. It connects and harmonizes access to Europe's distributed supercomputers, quantum systems, and data infrastructures.

Core Features and Capabilities

- **Single Sign-On (SSO):** Users log in once using their home institution credentials or **MyAccessID** via a federated identity framework, eliminating the need for separate accounts across different supercomputing centers.
- **Interactive & Web-Based Access:** Features **Open OnDemand** web interfaces, remote desktops, file browsers, and Jupyter notebooks for easier interaction (especially for newer users).
- **Direct & Programmatic Access:** Supports direct command-line login using short-lived SSH certificates with multi-factor authentication (MFA), alongside developer APIs.
- **Centralized Project & Resource Management:** Allows researchers, small and medium-sized enterprises (SMEs), and public authorities to track allocations, monitor usage, and manage jobs across multiple systems from a single dashboard.
- **Federated Software Catalogue:** Streams a shared, standardized software stack across participating HPC systems.
- **Workflows & Data Movement:** Utilizes integrated tools like **LEXIS** to automate multi-system workflows and cross-border data transfers.
- **Data Space Integration:** Connects with broader European data initiatives and data lakes, including **SIMPL**, **EOSC**, and **FENIX**



Available at https://my-eurohpc.eu/



AI Gigafactories

- A new class of **energy-efficient,** very large-scale facilities designed to **develop, train, run inference, and deploy the next generation AI models at an unprecedented scale**.
- A strategic milestone in advancing the **Union's digital and technological sovereignty**, for the development of a resilient, sovereign European AI ecosystem.
- The AIGF infrastructure must be **located in EU Member States and led by a Coordinator that is established, owned, and controlled** within the EU.
- AIGFs are taking AI Factories to the next level by integrating coherently massive computing power, **beyond 75 000 state-of-the-art advanced AI processors (H100 equivalent)**.
- Focus is on **power capacity**, **supply chain**, **cutting-edge networks**, **energy-efficiency**, and **AI-driven automation**.
- AIGFs are industry-led initiatives that must demonstrate clear financial viability and long-term sustainability.
- Need for **public-private partnerships** given the magnitude of the required investments.

One call – Two lots

Lot 1: Medium-Scale AIGF

Target: 4 winning consortia

Phase 1: minimum 25 000 GPUs (H100 equivalent)

Phase 2: full scale AIGF, minimum 75 000 GPUs

SUBMISSION DEADLINE: Feb 4, 2027

Lot 2: Large-Scale AIGF

Target: 3 winning consortia

Phase 1: minimum 40 000 GPUs (H100 equivalent)

Phase 2: full scale AIGF, minimum 100 000 GPUs

SUBMISSION DEADLINE: Dec 3, 2026

FINANCIAL & INVESTMENT STRUCTURE

- **Public Funding Pool: €10B** total value funded jointly by the EU and JPA member states. Comprises 35% of invested CAPEX of each AIGF.
- **Private Investment:** Expected to unlock ≥**€20** in total spending.
- **Funding Mechanism:** Public anchor customers offer guaranteed AI compute purchases.

ELIGIBILITY & PROPOSED TIMELINE

- **Consortia Focus:** Industry-led partnerships including cloud operators, investors, and public bodies.
- **Deployment:** Single-site or cross-border distributed setups across EU Member States.
- **Operational Window:** Must be fully active within 18 months from contract sign (target mid-2028).

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