

HPC for Industries @



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PUBLIC ENTITIES CONSORTIUM NO PROFIT

Since 1969, Cineca has been supporting the university and research system in Italy.



121 MEMBERS

2 ministries, 70 universities
49 research centres



6 SITES

Bologna, Milano, Roma, Napoli, Chieti, Palermo



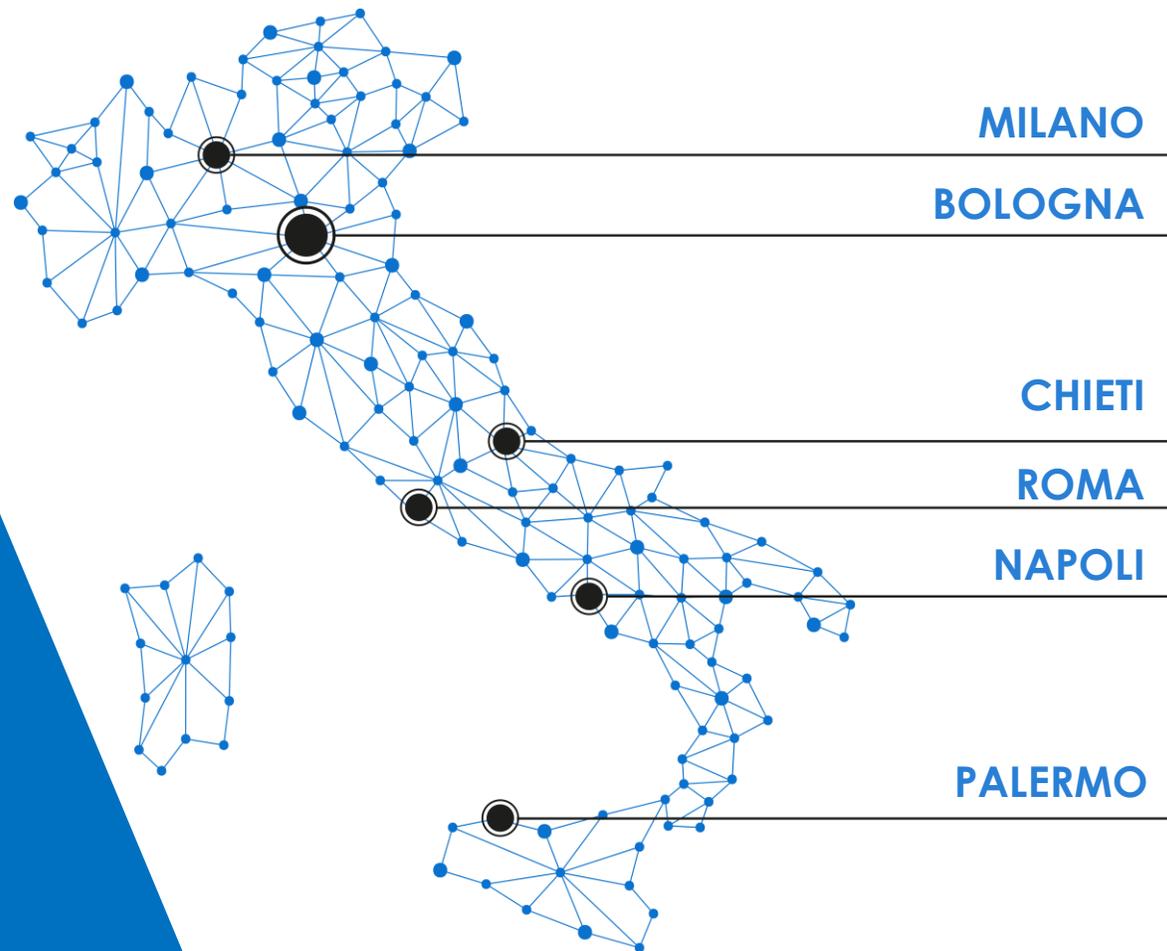
≈ 1100

Staff



≈ € 130M

Revenues 2024



CINECA

A centre of Competences and
Innovation



**World-class computing
infrastructure**



**Technological expertise in
HPC, Quantum, and AI**



**Access to the European and
international ecosystem**

CINECA

is by definition a champion of **open innovation**, there are four types of interaction modes



EU-funded projects



Collaboration agreements for public good



Training



«Commercial» services

EU-FUNDED PROJECTS



EUROPEAN HPC/Q Ecosystem



HPC Exascale ≥ 1 ExaFLOPs



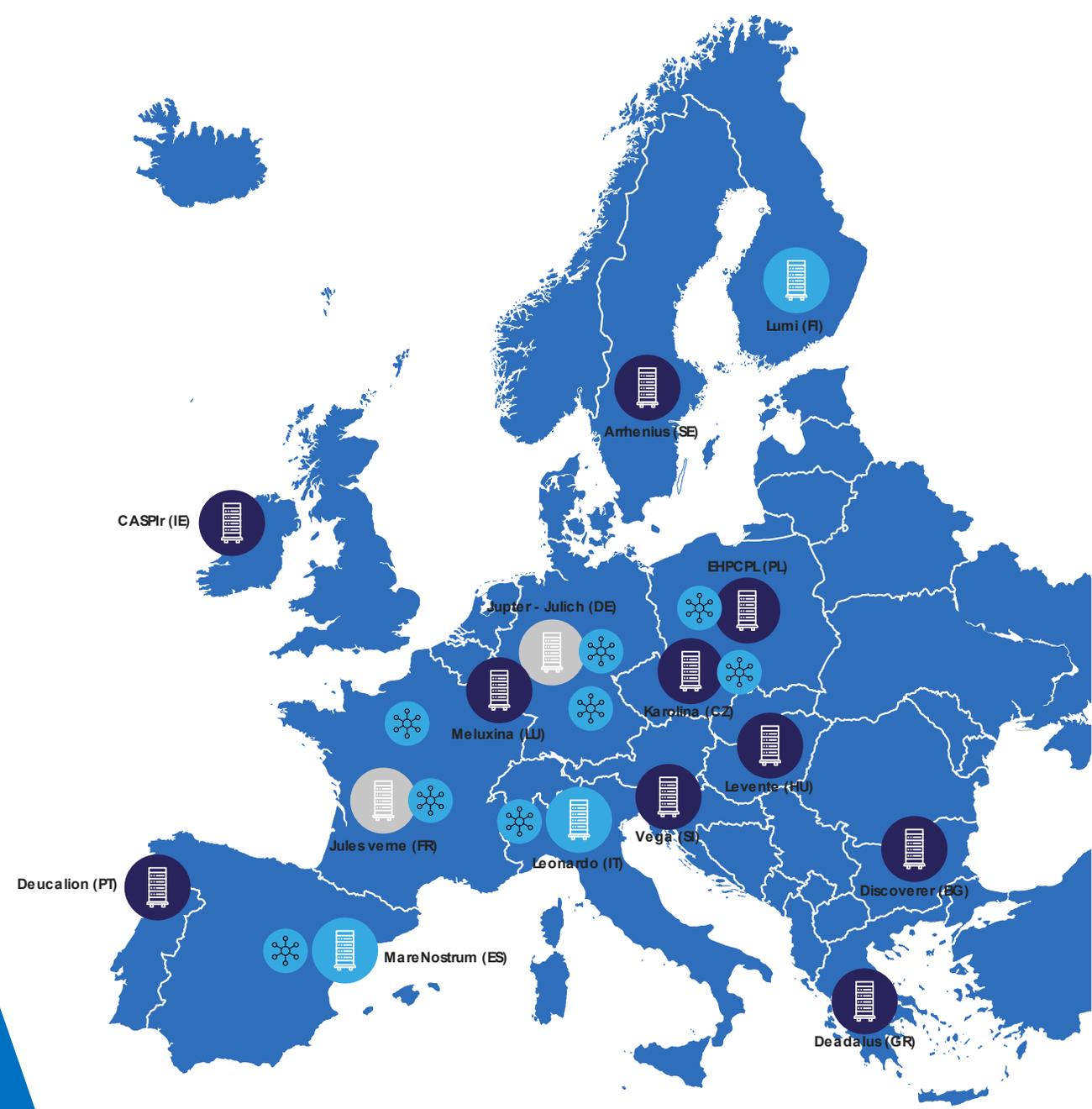
HPC Pre-exascale ≥ 100 PetaFLOPs



HPC Petascale ≥ 1 PetaFLOPs



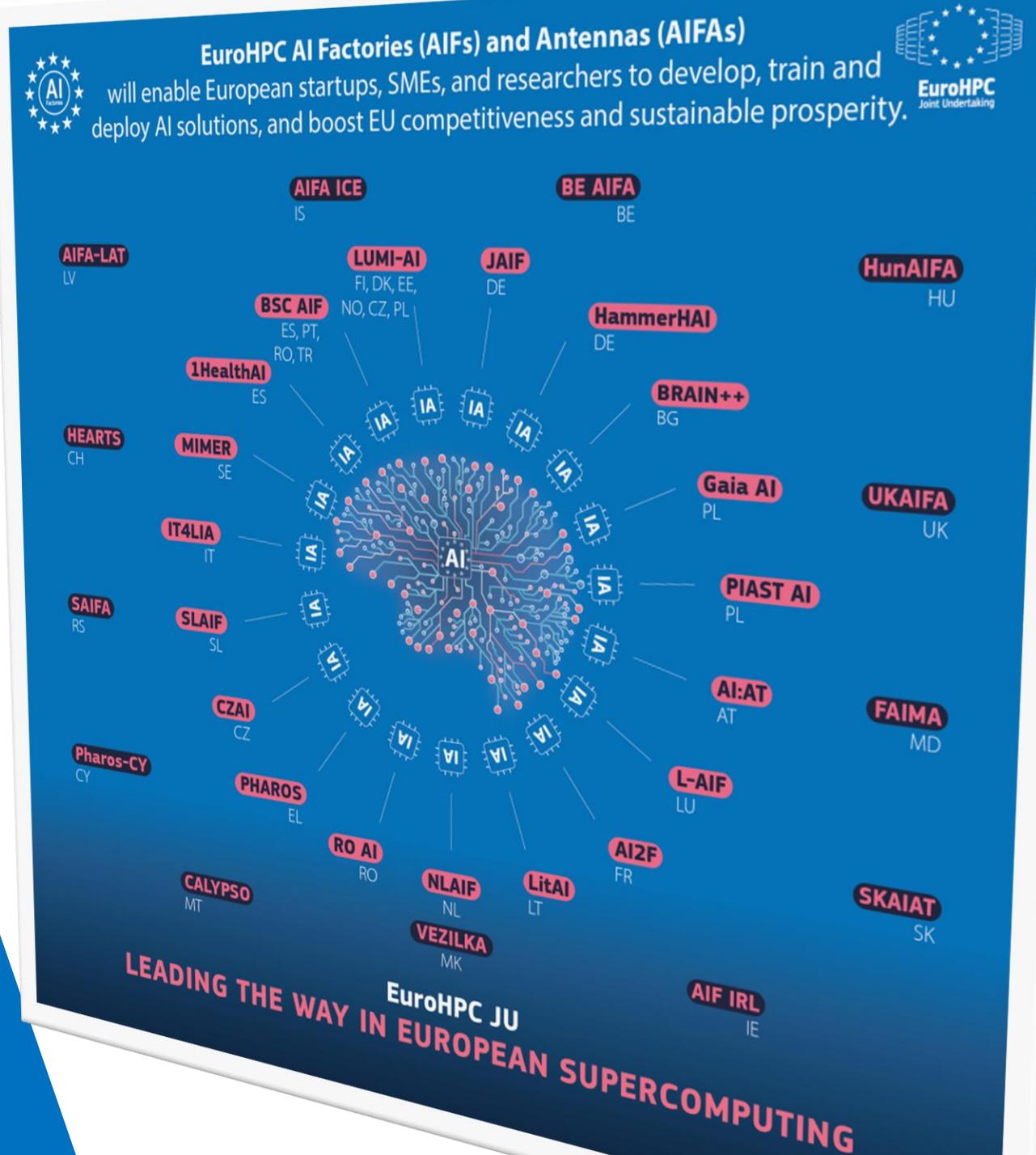
Quantum system / simulator



EUROPEAN AIFs and AIFAs NETWORK

AI Factories are dynamic ecosystems that 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 Factory Antennas complement existing AI Factories by expanding the reach and complementing their services.



3 CHANNELS TO SUPPORT INNOVATION

- 1 Access to computational resources
- 2 Support
- 3 Financial support through cascade funding

COMPUTING RESOURCES

Access to computing

Access to computing hours or tenants on **HPC, Cloud, AI Factory,** and **Quantum Computer** systems. This budget allows industries to use powerful computing resources to perform complex simulations, large-scale data analysis, and artificial intelligence model training.

Active opportunities

Free access to computing on European systems is provided through **EUROHPC JU calls**. These calls are designed to meet various needs based on project size, type of resources required, and subject matter. Applications are submitted via an online form. Cineca provides support for submitting applications.

[HPC: https://eurohpc-ju.europa.eu/supercomputers/supercomputers-access-calls_en](https://eurohpc-ju.europa.eu/supercomputers/supercomputers-access-calls_en)

[AI Factory : https://eurohpc-ju.europa.eu/ai-factories/ai-factories-access-calls_en](https://eurohpc-ju.europa.eu/ai-factories/ai-factories-access-calls_en)



EuroHPC
Joint Undertaking

SUPPORT

Technical Support

HPC and AI experts can provide technical assistance and advice to optimize the use of computational resources, bring AI algorithms or models to HPC, and resolve technical issues.

Main Active Opportunities



The **MINERVA** project promotes the optimization of your applications and skills in AI on HPC (free for academics, public administration, and SMEs).

<https://minerva4ai.eu/services/>



The **EPICURE** project provides support to users participating in Euro-HPC calls. The goal is to assist users in optimizing and scaling their code for effective use on HPC.

<https://epicure-hpc.eu/support-services/>

EDIH projects support the digital innovation of SMEs by offering comprehensive services with discounts of up to 100% through state aid.



CASCADE FUNDING

Funding support through Cascade Funding

This approach allows economic funds to be distributed to HPC project participants, facilitating access to financial resources for the development and implementation of technological innovations. Cineca supports companies in defining and submitting project proposals to European initiatives that provide funding.

Active opportunities



FORTISSIMO
PLUS

The **FFplus** project funds innovative projects carried out by SMEs, including those in partnership with other companies or research institutions, with two types of calls:

- Business experiments (HPC, AI, Big Data): max €200K
- Innovation studies (generative AI): max €300K

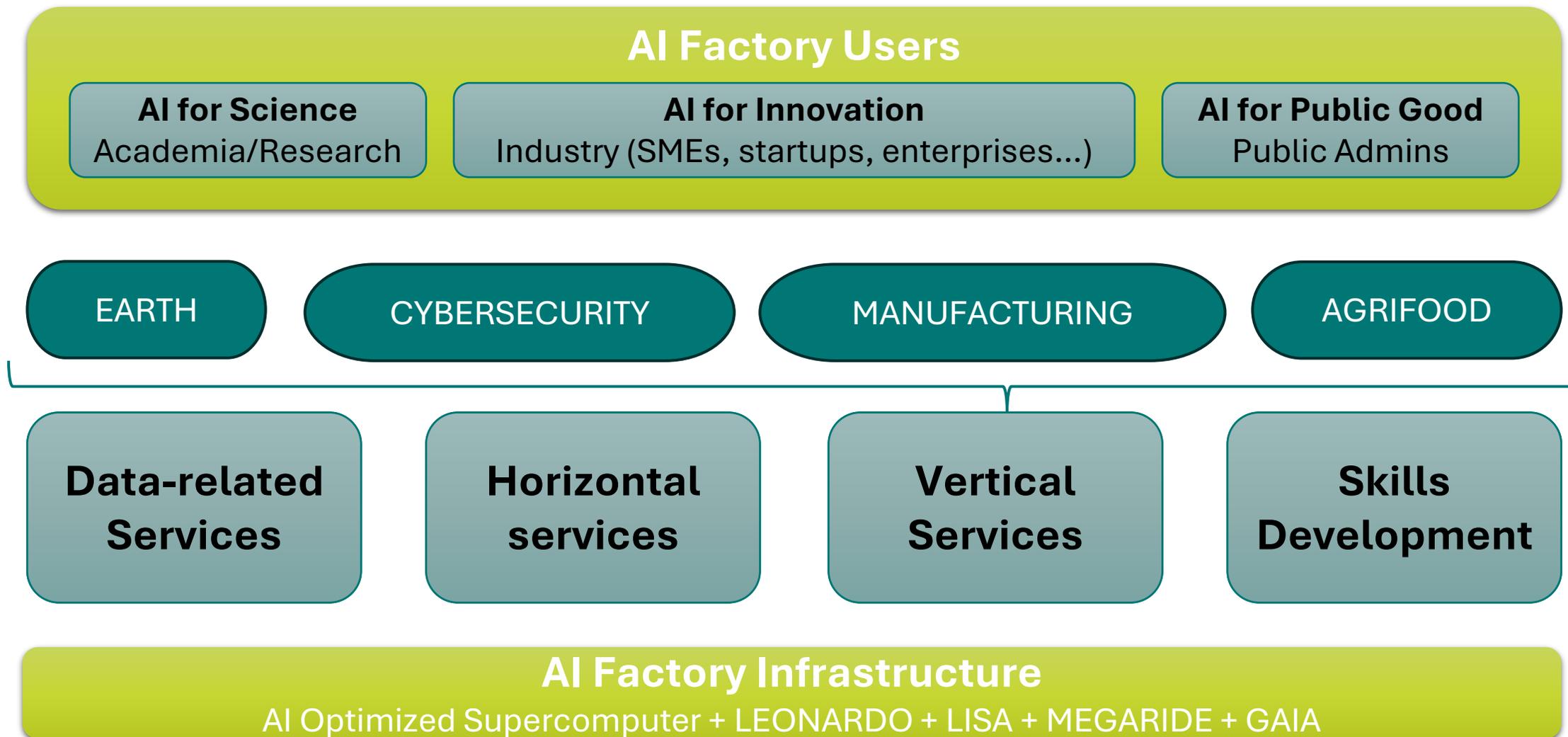
<https://www.ffplus-project.eu>

ITALIA
AI FACTORY

ITALY for ARTIFICIAL INTELLIGENCE



The IT4LIA AI Factory Project



STRATEGIC AGREEMENTS FOR PUBLIC GOOD



PARTNERSHIP

Collaboration agreements for R&D projects

CINECA's computing resources and know-how can be accessed through collaboration agreements for research and development projects in the public interest.

The agreements must:

- Identify an R&D project with joint objectives, defining a commitment of resources from both parties
- Ownership of the research results will be joint.
- The results must be public (open science approach) in the case of agreements with private entities.

TRAINING



AN EXTENSIVE TRAINING PROGRAM DEDICATED TO BUSINESSES



Training for Industry

The training program offers **free courses for industry**, supported by various European projects such as EUROCC, IT4LIA AI Factory, and MINERVA, and delivered in collaboration with innovation and training institutions. These courses focus on industrial applications, can be taken either **online or in person**, and are **geographically distributed** to ensure maximum flexibility and accessibility for businesses, especially SMEs. The courses are divided into **different levels**, ranging from information events on HPC, Quantum, and AI technologies to basic courses and specific courses on different technologies.



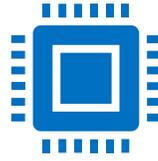
Training ad-hoc

CINECA also organizes **ad hoc courses**, created specifically to meet the specific needs of a single industry. These courses can be held **on-site**. Ad-hoc courses can be offered as a **value-added service**, the price of which is specified in the following section, or they can be funded by projects such as EDIH. In this case, depending on the type of company, **a discount on the course price may be applied as state aid**.

COMMERCIAL SERVICES

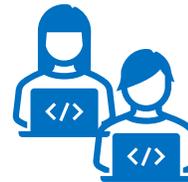


TIPOLOGIES OF SERVICES



Computing

- **Computing services:** this type of service provides the institution/company with access to computing and storage capacity on CINECA's supercomputers. The customer will be provided with:
 - Budget in computing hours
 - Storage on parallel and/or multi-protocol file systems
 - Access via ssh
 - The user's jobs will be scheduled on a shared queue.
- **HPC Cloud Service:** this type of service provides the user with a pool of resources in IaaS mode. The resources can be configured independently and the user is fully responsible for them. The resources provided can be: vCPUs, vGPUs, RAM memory, CEPH storage space, Datalake storage, and Floating IP.



Human Based

The organization/company will be provided with support, consulting, and training services.

The logo features a large, light blue stylized letter 'C' on a dark blue background. The word 'CINECA' is written in white, bold, uppercase letters across the center of the 'C'.

CINECA

Grazie

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