

THE EUROPEAN HIGH PERFORMANCE COMPUTING JOINT UNDERTAKING

**The EuroHPC Supercomputing Infrastructure
Full Speed Ahead**

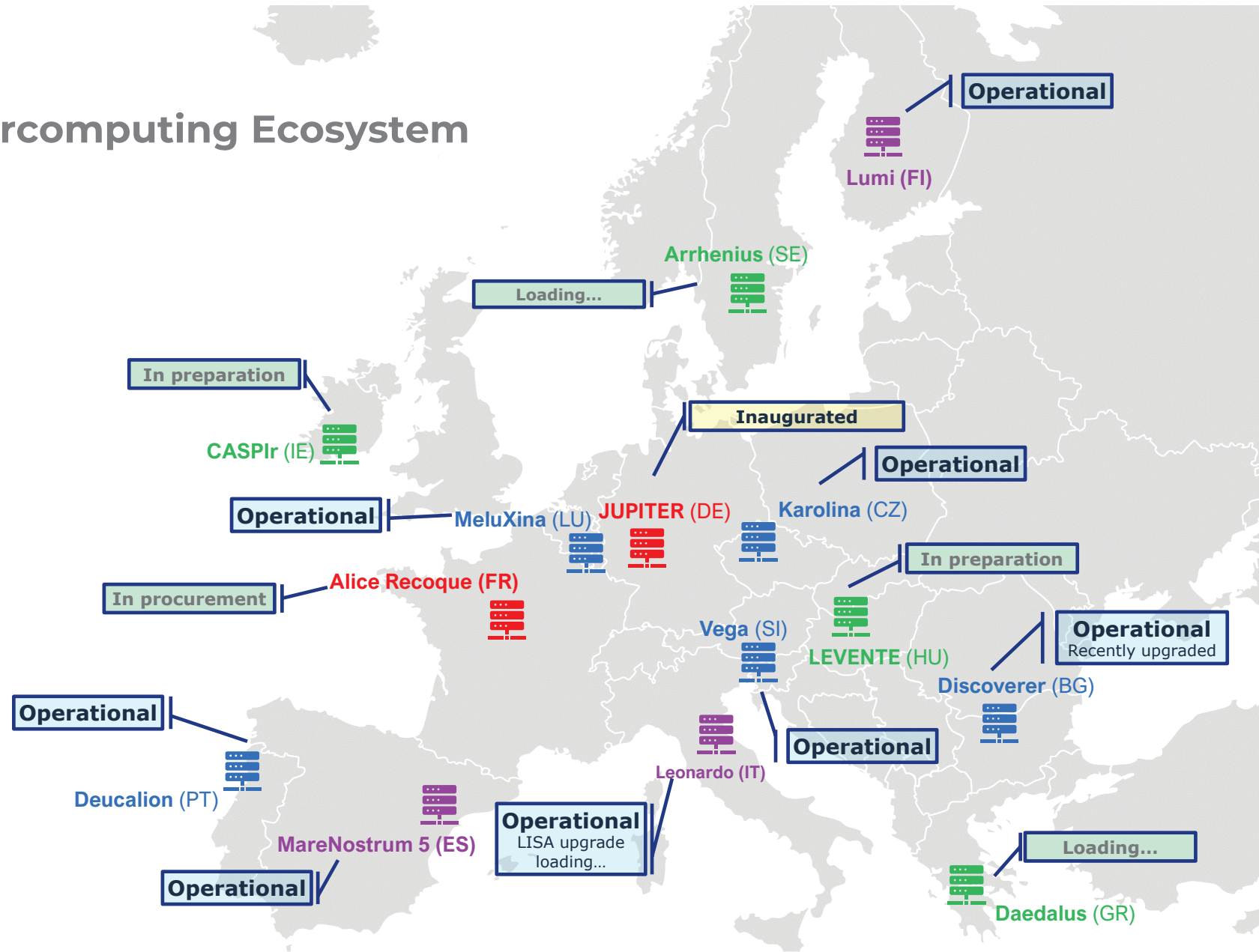


EuroHPC
Joint Undertaking

EuroHPC User Days
30 Sep 2025

The EuroHPC Supercomputing Ecosystem

-  EXASCALE
-  PRE-EXASCALE
-  PETASCALE
-  MID-RANGE



The EuroHPC Supercomputing Ecosystem – The numbers

Computing Performance

8* systems comprising **21 partitions** offering

~900 PFlops



of aggregated sustained Linpack performance
...soon to be increased** to

~2 ExaFlops

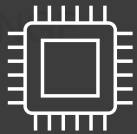


15597 CPU Nodes (AMD/Intel x86 and Fujitsu ARM)
7869 GPU Nodes



30324 GPUs (NVidia A100/H100/H200,
AMD MI250X)

27104 GPUs coming ** soon (NVIDIA GH200)



* Operational systems (petascale, pre-exascale)

** JUPITER, Daedalus and Arrhenius

Budget (CapEx)

Pre-exascale – Petascale program

Total budget: **510,000,000 €**
EU Contribution: **240,000,000 €**

Exascale program

Total budget: **567,800,000 €**
EU Contribution: **283,900,000 €**

Mid-range & upgrades program

Total budget: **153,100,000 €**
EU Contribution: **53,600,000 €**



Budget refers to acquisition costs only.
EuroHPC co-funds operating costs for
Pre-exascale/Exascale systems (50%) and
Mid-range/Upgrades (35%).

Impact

Open for user access since Dec 2021

145,161,896 node hours Awarded to

2,334 Projects

Powering strategic applications

- **Destination Earth**
- **AI Boost – Training of European LLMs**

Across all EuroHPC Member States



Daedalus (GR)

Hyperconnected

Contract

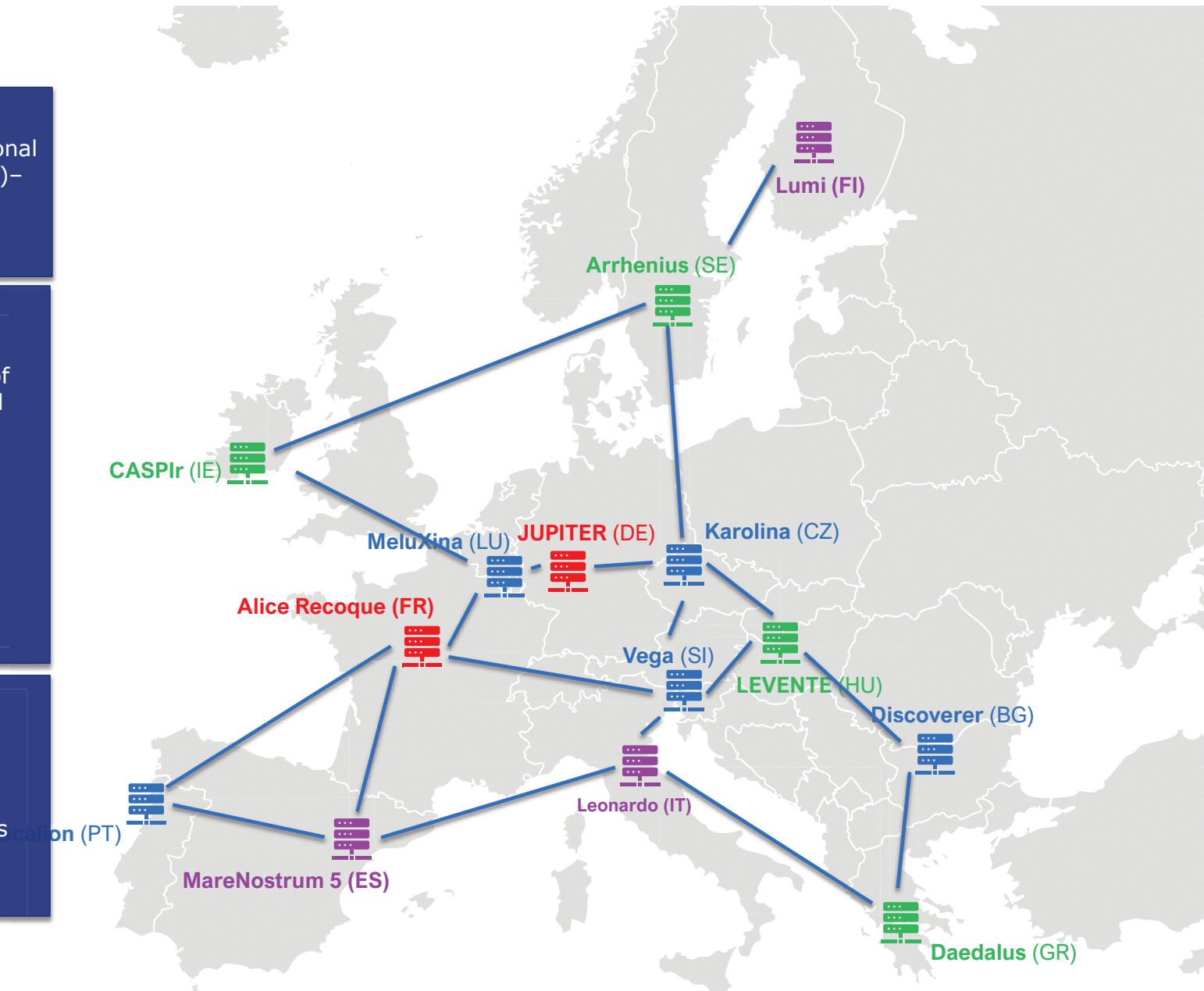
- **GÉANT**, the Association of European National Research and Education Networks (NRENs)– Implementing partners
- Contract value: **€60 million**
- Duration: **48 months**

Goals

- Build a secure, federated, and future-proof connectivity infrastructure for AI, HPC and Quantum systems across Europe.
- **222 Points Of Interest (PoIs)**
- Deliver terabit-per-second capacity with robust security, flexible, and future-proof services
- To benefit: research communities, SMEs, startups, public sector, industry, and innovation stakeholders

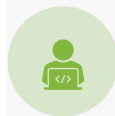
Timeline

- **2026** – High Level Design (HLD) and HyperConnectivity Service Area (HCSA) delivered; inclusion of Priority POIs 1&2
- **2026 –2029** – Progressive inclusion of PoIs
- **2029** – Fully hyperconnected ecosystem in operation



Federated

Goals



A **single federated identity** across all AI and HPC machines for each user (eIDAS based, e.g. SME registry, EU Wallet etc.)



Uniform and **secure** access to all federated machines



Provision of **multitenancy in secure environment**



Interactive web-based usage



Advanced features for **workflows and interactive graphical AI usage** interface (e.g. Kubernetes)



Data transfer methods such as S3 and similar to and from external and internal data clouds, data lakes and data spaces.



Unified AI and HPC software across all federated machines



Smart scheduling capabilities to optimize compute usage and increase the level of abstractions for the provided compute capacity



Connection to HPC in Europe portal that serves as EU training coordination place

Contract

- A consortium led by **CSC – IT Center for Science**, with NORDUnet, University of Tartu, Ghent University, and VSB Technical University of Ostrava's IT4Innovations and GEANT.
- Expected duration: **5 years**
- **Total budget: 20.000.000,00 €**

Timeline

- Project start **January 2025** (Contract signed December 2024)
- **1st phase (2025-2026)** The development of a Minimum Viable (Federation) Platform (MVP) covering six key areas including federated AAI, resource allocations, and complex workflow manager including smart scheduler.
 - **1st release:** Q1/2026 with integration to currently online EuroHPC HPC and AI systems
 - **2nd release:** Q4/2026 additional EFP components and integration online HEs, AI factories and quantum systems + initial integration of Fenix, SIMPL and EOSC

Deucalion (PT)

MareNostrum 5 (ES)

Daedalus (GR)

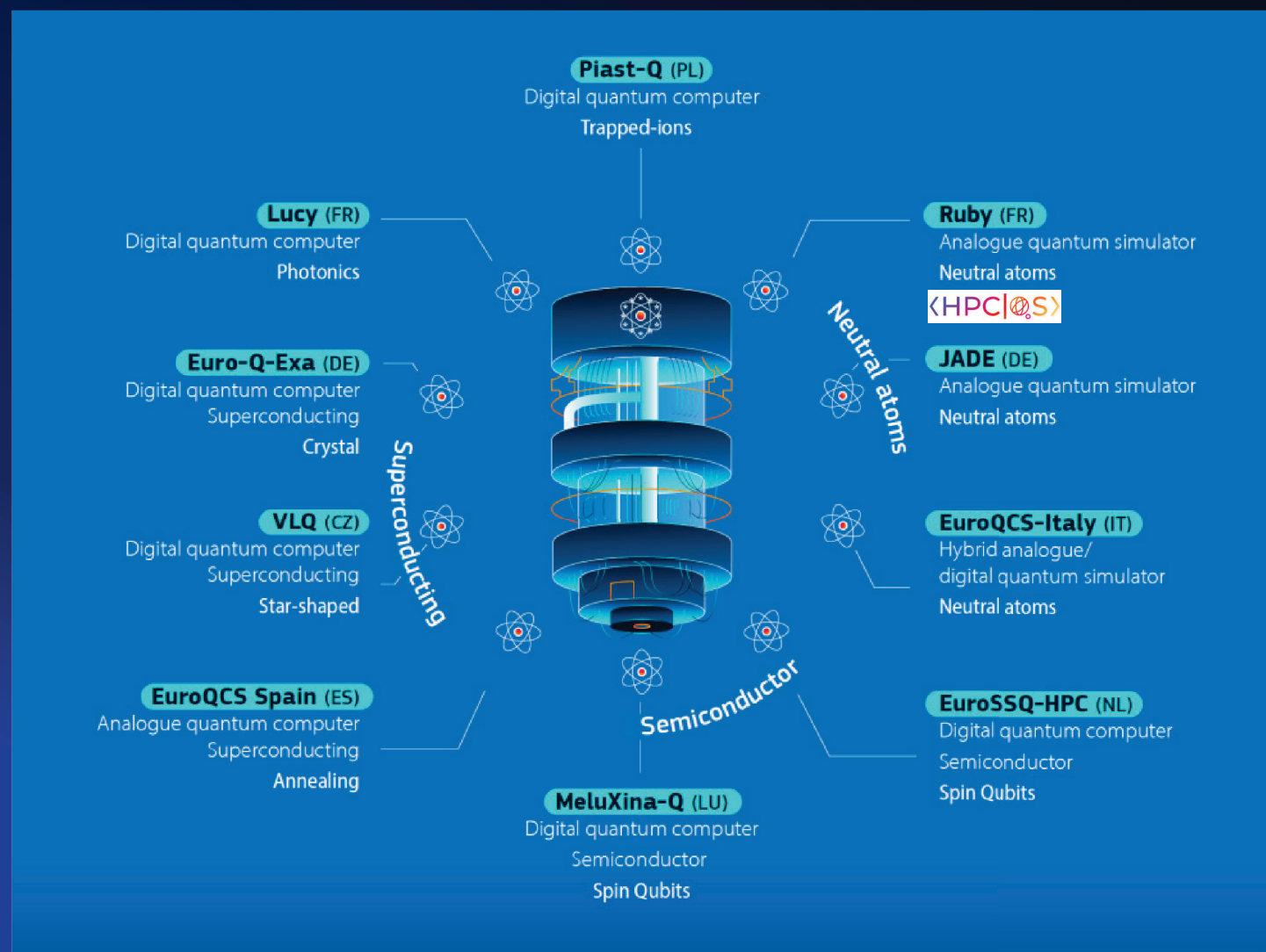
EuroHPC Quantum Computers

10 Quantum Computers procured
(2 Quantum Simulators as part of the HPCQS project)

2 systems recently inaugurated

- Piast-Q (PSNC, Poznan)
- VLQ (IT4I, Ostrava)

Resources to be offer soon through
the EuroHPC Access Calls!

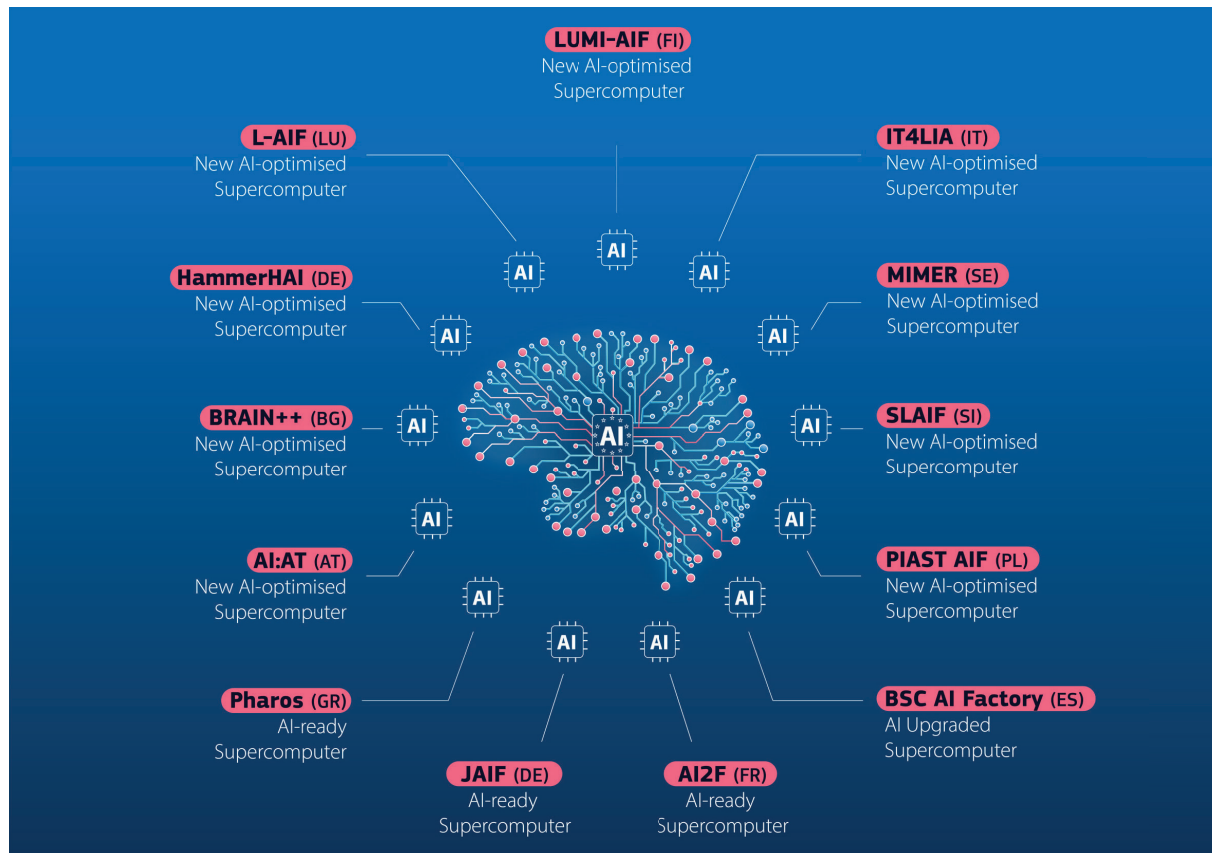


At this point we should expect to say: “Mission Accomplished”...
but then...
... we were given a new mission

THE AI FACTORIES

EuroHPC JU selected 13 EU sites that will host the first AI Factories – to drive Europe’s leadership in AI.

Ecosystem to be further strengthened by additional AI Factories coming out from the 3rd cut-off of AIF CEI and the AIF Antennas Horizon Europe call.



AI-ready EuroHPC supercomputers in:

- Germany **JAIF – JUPITER**
- France **AI2F – Alice Recoque**
- Greece **Pharos – Daedalus**

AI-upgrades to EuroHPC supercomputers in:

- Spain **BSC AIF – MareNostrum 5**

New AI-optimized EuroHPC supercomputers in:

- Finland **LUMI-AIF**
- Germany **HammerHAI**
- Italy **IT4ALIA**
- Luxembourg **L-AIF**
- Sweden **MIMER**
- Bulgaria **Discoverer++**
- Slovenia **SLAIF**
- Austria **AI:AT**
- Poland **PIAST AIF**



*AI Factories pull together EU and national resources, in a collaborative effort of **21 European countries***

AI Systems offered/planned

AIFs using existing systems

- **JAIF** (JUPITER)
- **AI2F** (Alice Recoque)
- **Pharos** (Daedalus)

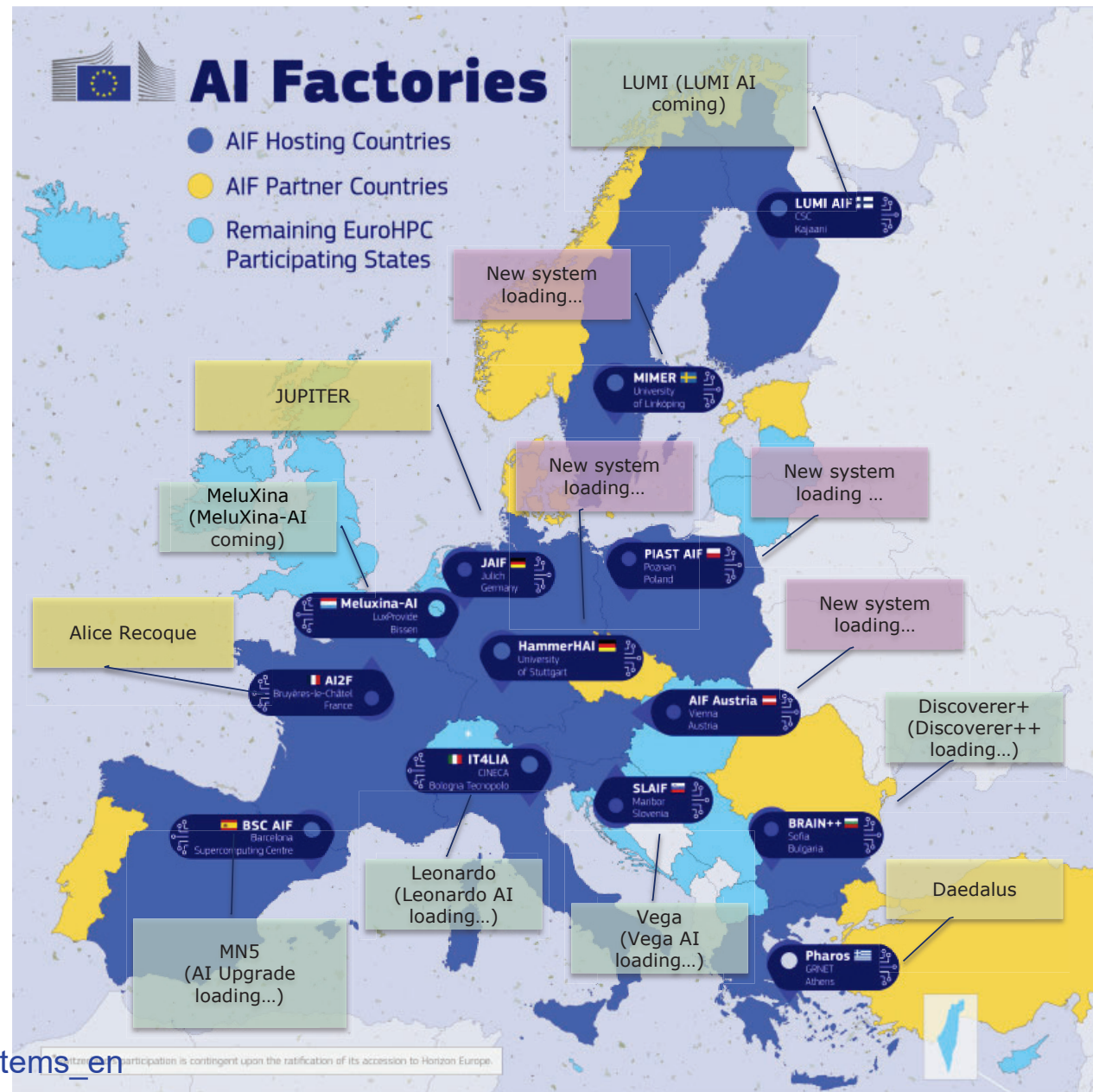
AIFs temporarily offering existing systems

- **BSC** (MN5... waiting for MN5 upgrade)
- **IT4LIA** (Leonardo/LISA... waiting for Leonardo-AI)
- **LUMI AIF** (LUMI.. waiting for LUMI-AI)
- **LuxProvide** (MeluXina... waiting for MeluXina-AI)
- **BRAIN++** (Discoverer+... waiting for Discoverer++)
- **SLAIF** (Vega... waiting for Vega-AI)

AIFs with upcoming new systems

- **HammerHAI** | HLRS, Stuttgart
- **PIAST AIF** | PSNC, Poznan
- **AI:AT Austria** | ACA, Vienna
- **MIMER** | LU, Linkoping

https://eurohpc-ju.europa.eu/ai-factories/ai-factories-systems_en



What to expect from the EuroHPC AI-optimised supercomputers



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- AI optimised GPU architectures: Emphasis on **FP32**, **FP16** and **FP8** performance
- Tightly integrated on node level – Memory coherency
 - NV Link, UALink, Infinity Fabric
- **Revised benchmarks**
 - HPL and Top500 not the driving metric.
- Dense interconnect on the partition level
 - At least one link per GPU
 - Software friendly
 - Traditional Infiniband but also Ethernet (e.g. Ultra Fast Ethernet)
- Richer software/middleware stacks
 - Slurm is not the king
 - Kubernetes, containers, virtualisation and relevant workflow and resource management tools
- **MLOPs**
 - Support for the complete AI training/inference lifecycle: Preparation, fine tuning, augmentation, model catalogues.
- **Multitenancy** and advanced security.
 - User isolation on compute, storage and network layer



EuroHPC AI supercomputers will offer diverse architectures and design choices suited for the specific goals of the various AI Factories

Think bigger... think giga...

AI Gigafactories under the EuroHPC JU

- Large-scale facilities designed to **develop, train, and deploy the next generation most complex AI 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 technology** and **critical industrial sectors**.
- Building on the concept of AI Factories, taking it to the next level by **integrating coherently massive computing power beyond 100 000 advanced AI processors**.
- Focus on **power capacity and expected outcome of the networks, energy-efficiency, and AI-driven automation**.
- **Federated** with the **EuroHPC network of AI Factories** and **sovereign cloud**.
- Need for **public-private partnerships** given the magnitude of the required investments.

Loading...



Revised EuroHPC JU regulation
mandating the JUs role, budget
and expected outcome of the
Gigafactories program





EuroHPC
Joint Undertaking

THANK YOU

EUROHPC JU ACCESS MODES AND OPPORTUNITIES

KLARA MEŠTROVIĆ

Head of Sector Peer-Review

EuroHPC JU User Days, 30 September 2025



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EuroHPC JU and supercomputing access

Procuring world-class:

- Supercomputers
- AI Factories
- Quantum computers

**Providing access via different access
modes**

**Implementing peer-review process per
access mode**



TRADITIONAL HPC

PREPARATORY ACTIVITIES

BENCHMARK ACCESS

DEVELOPMENT ACCESS

PRODUCTION ACTIVITIES

EXTREME SCALE ACCESS

REGULAR ACCESS

Access modes



ARTIFICIAL INTELLIGENCE

SCIENCE

**AI FOR SCIENCE &
COLLABORATIVE EU PROJECTS
ACCESS**

INDUSTRIAL INNOVATION

LARGE SCALE ACCESS

PLAYGROUND ACCESS

FAST LANE ACCESS



Access based
on **technical
feasibility**



Access based
on **technical
feasibility and
evaluation
criteria**



TRADITIONAL HPC

PREPARATORY ACTIVITIES

BENCHMARK ACCESS

DEVELOPMENT ACCESS

PRODUCTION ACTIVITIES

EXTREME SCALE ACCESS

REGULAR ACCESS

For code and scalability tests

Access duration 2-3 months

Fixed allocation between 200 and 2.500 node hours

Allocation process duration – 2 weeks after the cut-off date

For code and algorithm development and optimization

Access duration 6-12 months

Fixed allocation between 800 and 4.500 node hours

Allocation process duration – 2 weeks after the cut-off date

For high-impact, high-gain research applications requesting extremely large allocations

Access duration 12 months

Allocations between 100.000 and 3.000.000 node hours

Peer-Review process duration – 6 months after the cut-off date

For research applications requesting large allocations

Access duration 12 months

Allocations between 20.000 and 1.800.000 node hours

Peer-Review process duration – 4 months after the cut-off date



TRADITIONAL HPC

PREPARATORY ACTIVITIES

BENCHMARK ACCESS

DEVELOPMENT ACCESS

PRODUCTION ACTIVITIES

EXTREME SCALE ACCESS

REGULAR ACCESS

EVALUATION CRITERIA EXTREME SCALE & REGULAR ACCESS

CRITERIA:

- EXCELLENCE
- INNOVATION & IMPACT
- QUALITY & EFFICIENCY OF THE IMPLEMENTATION



SCIENTIFIC EXPERTS

Access Resource
Committee
&
Scientific Reviewers



TECHNICAL EXPERTS

UPCOMING CUT-OFF DATES

- BENCHMARK & DEVELOPMENT ACCESS – continuously open with monthly cut-off dates
- EXTREME SCALE ACCESS – 27 October 2025
- REGULAR ACCESS – TBD – March 2026



TRADITIONAL HPC

PREPARATORY ACTIVITIES

BENCHMARK ACCESS

DEVELOPMENT ACCESS

PRODUCTION ACTIVITIES

EXTREME SCALE ACCESS

REGULAR ACCESS

Access modes



ARTIFICIAL INTELLIGENCE

SCIENCE

**AI FOR SCIENCE &
COLLABORATIVE EU PROJECTS
ACCESS**

INDUSTRIAL INNOVATION

LARGE SCALE ACCESS

PLAYGROUND ACCESS

FAST LANE ACCESS



Access based
on **technical
feasibility** and
**evaluation
criteria**



Access based
on **technical
feasibility**

For AI applications performing scientific research activities

Access duration 6 months
Allocations between 20.000 and 90.000 node hours
Peer-Review process duration – 1 month after the cut-off date

For industrial AI applications with high impact needing large allocations

Access duration 3, 6 or 12 months
Allocations between 50.000 and 2.400.000 GPU hours
Peer-Review process duration – 2 weeks after the cut-off date

For new users or those with smaller computational needs for performing AI computations

Access duration 1, 2 or 3 months
Fixed allocations of 5.000 GPU hours
Allocation process duration – 2 working days

For industrial users familiar with HPC environments requiring fast access

Access duration 1, 2 or 3 months
Allocations between 10.000 and 50.000 GPU hours
Allocation process duration – 4 working days



ARTIFICIAL INTELLIGENCE

SCIENCE

**AI FOR SCIENCE &
COLLABORATIVE EU PROJECTS
ACCESS**

INDUSTRIAL INNOVATION

LARGE SCALE ACCESS

PLAYGROUND ACCESS

FAST LANE ACCESS

EVALUATION CRITERIA AI FOR SCIENCE & LARGE SCALE ACCESS

CRITERIA – AI FOR SCIENCE:

- EXCELLENCE
- INNOVATION & IMPACT
- QUALITY & EFFICIENCY OF THE IMPLEMENTATION

CRITERIA – LARGE SCALE:

- INNOVATION
- IMPACT



AI EXPERTS



TECHNICAL EXPERTS



INDUSTRY INNOVATION GROUP

UPCOMING CUT-OFF DATES

- PLAYGROUND & FAST LANE ACCESS – continuously open, no cut-off dates
- LARGE SCALE ACCESS – 15 October 2025
- AI FOR SCIENCE ACCESS – 24 October 2025



ARTIFICIAL
INTELLIGENCE

SCIENCE

AI FOR SCIENCE &
COLLABORATIVE EU PROJECTS
ACCESS

INDUSTRIAL INNOVATION

LARGE SCALE ACCESS

PLAYGROUND ACCESS

FAST LANE ACCESS



EuroHPC
Joint Undertaking



Principal
Investigator



Team
members

ORGANIZATION COUNTRY

Horizon 2020
countries

Petascale systems
Pre-exascale systems

Horizon Europe
countries

Exascale system
Upcoming second
exascale, mid-range
and quantum systems



Principal
Investigator

ORGANIZATION TYPE

Access modes
for industry

Industry affiliation

Special access
tracks

Research, industry
or public sector
affiliation

ELIGIBILITY

Who can apply?





SUPPORT SERVICES



WEBSITE UPDATES



COMMUNICATION



ARC FEEDBACK



HOMOGENEOUS USAGE



ELIGIBILITY



FINAL REPORT



REMOVE INSTRUCTIONS

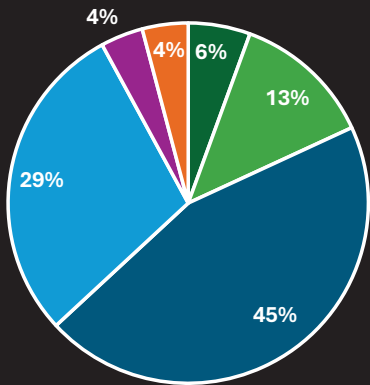


CODE TESTING

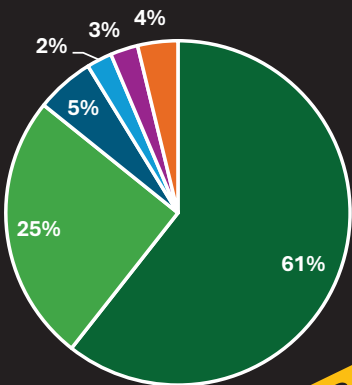
ADVICE FROM THE PEER-REVIEW OFFICE

STATISTICS

ALL ACCESS MODES - AWARDED PROPOSALS SHARES



ALL ACCESS MODES - AWARDED RESOURCES SHARES



OVER 145 M NODE HOURS AWARDED

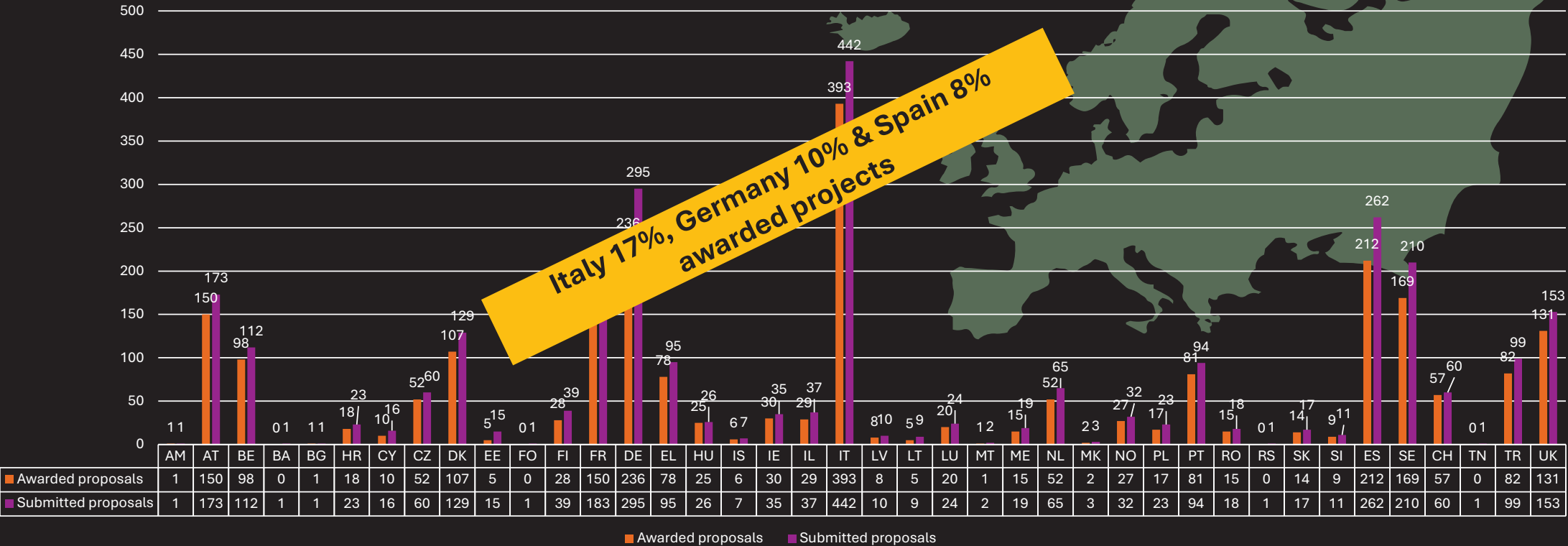
OVER 2,000 PROJECTS

AWARDED PROPOSALS AND RESOURCES PER ACCESS MODE

ACCESS MODE	PROPOSALS AWARDED	NODE HOURS AWARDED
EXTREME SCALE ACCESS (Dec 2022-Apr 2025)	130	87,978,597
REGULAR ACCESS (Dec 2021-Mar 2025)	293	36,530,037
DEVELOPMENT ACCESS (Jan 2022-Sep 2025)	1,050	7,951,567
BENCHMARK ACCESS (Jan 2022-Sep 2025)	676	3,459,667
AI and Data-Intensive Applications Access (Apr 2024-Apr 2025)	79	3,266,600
AI for Science and Collaborative EU Projects Access (June 2025)	10	496,000
Playground Access (April 2025-Sep 2025)	48	49,375
Fast Lane Access (April 2025-Sep 2025)	28	195,678
Large Scale Access (April 2025-Sep 2025)	20	5,234,375
TOTAL	2,334	145,161,896

STATISTICS

ALL ACCESS MODES – Principal Investigator/Project Lead affiliation countries distribution - awarded vs submitted proposals numbers



EuroHPC Supercomputers

Dos and Dents

Luigi Del Debbio

The University of Edinburgh



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resource allocation

A single panel
across all
domains – one-
year **focused**
applications

Raises the bar
for all
domains

Quality of
applications
has improved –
frequency of
calls

Very expensive
in terms of
human
resources
(thank you !)

BENCHMARK ACCESS:

- 1st day of each month

DEVELOPMENT ACCESS:

- 1st day of each month

**AI FOR SCIENCE AND
COLLABORATIVE PROJECTS**

- 14 February
- 11 April
- 20 June
- 29 August
- 10 October
- 12 December

REGULAR ACCESS:

- 28 March
- 5 September

EXTREME SCALE ACCESS:

- 24 April
- 17 October



peer review is hard! (but the best)

- a good proposal needs to have
 - ... solid motivations (beyond state-of-the-art?)
 - ... ambitious goals (why do you need Extreme Scale? Regular call?)
 - ... performant software (are you ready for Extreme Scale? support?)
 - ... requests that are **justified** by scientific milestones
- all of this needs to be **in the application!**
- ... needs to be **clearly stated** for external reviewers
- ... and for a majority of panel members

evaluation

we try to give clear guidance on the criteria

please follow the instructions...

benchmark using production code on the required system

we revise our criteria as the field evolves

we try to communicate any changes quickly...

send us feedback – we do take it into account

resource allocation

- resource allocation is the management of insufficient resources
 - what could you do with half of the requested time?
- I would love to allocate **all** proposed projects

resource allocation

- resource allocation is the management of insufficient resources
 - what could you do with half of the requested time?
- I would love to allocate **all** proposed projects
- ... actually, **NO**, I would only allocate the good ones!
- there are **two** calls per year, this allows rejected projects to improve and resubmit quickly
- this is a great resource, projects do improve

closing remarks

try buying computer time?

cloud providers charge for 250k node-hr... M€

EuroHPC is a fantastic research infrastructure

we want to make the best use of it – broad portfolio of high-impact performant softwares

help the ARC: keep submitting strong proposals

make sure fundamental research remains a core priority!

EuroHPC should invest in creating a stronger interface with industry



huge thanks to my partners in crime!

- Evangelos Floris
- Klara Mestrovic
- Veneta Boneva
- Laura Martinez Calvo
- Annika Kossack

- Theo Brandmeyer
- Dobromir Vasilev
- Catarina Guerreiro
- Dora Marton



MINERVA

European Support Centre for Scalable AI Research and Deployment

Laura Morselli - CINECA

MINERVA is a distributed, European-wide HPC-enabled AI application support service

It brings together expertise from EuroHPC Hosting Entities and partners representing major European stakeholders in AI.

MINERVA acts as a central hub for cutting-edge European competences in large-scale ML/AI research and development.

It started in January 2025, and the project's duration is 36 months.

What MINERVA Aims To Achieve



What we do

- Offer a rich service portfolio covering several levels and types of support.
- Interact with AI communities to identify needs and update the MINERVA service portfolio.
- Increase competences of AI communities on AI n HPC.
- Ensure models are developed according to ethical and responsible AI regulations.

- **Support:** Operating an EU-wide support centre.
- **Knowledge transfer:** Publishing best practice guides and guidelines.
- **Benchmarking:** Evaluating model performance on supercomputers.
- **Data Access:** Providing information on access to public datasets.
- **Training Programs:** Providing "AI on HPC" training program.
- **Community Hub:** Supporting large-scale open-source ML/AI research and development on HPC.

How we do it

The MINERVA Support



To deliver support that is both structured and flexible, MINERVA recognises that users may need help on different topics and in different ways. We organise our services along those two key principles:

Service Levels (L1-L5)

These define the thematic areas where support is offered, reflecting the kinds of challenges AI users typically face, from porting workflows to HPC (L1), scaling models and workflows (L2), to pre-training (L3) and fine-tuning foundation models (L4), as well as complying with ethical and regulatory requirements (L5).

Support Types (T1-T4)

These describe how the support is delivered – from quick technical help (T1) to long-term engineering collaborations (T4).

 *Unlike the Levels, these Support Types are an internal coordination tool to help allocate resources and tailor support formats to user needs.*

This structure allows MINERVA to respond effectively to diverse user needs while making the best use of partner expertise and ensuring high-quality support for the European AI community.

SERVICES



L1
*Porting AI
Applications &
Workflows to HPC*

L2
*Optimization &
Scaling of AI
Libraries on HPC*

L3
*Pre-training of
Large-Scale
Foundation
Models*

L4
*Specialization &
Fine-Tuning of
Foundation
Models*

L5
*Ethical &
Responsible AI
Support*

One point of entry
support@minerva4ai.eu

SERVICES



Support Type	Goal	Scope	Time to resolution	Delivery	Trigger
T1 - Assistance	Quick resolution of specific issues	Debugging, configuration, usage questions	Few days	 Remote only	Ticketing system
T2 - Consulting	Strategic guidance for planning and theoretical questions	Proposals, regulation, architecture, resources	Up to 2 weeks	 Remote /  On-site optional	Ticketing system Scheduled request
T3 - Workshop	Accelerate workflows through hands-on engineering support	Profiling, performance tuning, scaling	Up to 2 months	 Remote /  On-site optional	Ticketing system Evaluation-based selection & Partner availability
T4 - Embedded Support	Long-term collaboration on advanced AI projects	Scaling, fine-tuning, large model training, data handling	Up to 6 months	 Remote (with meetups recommended)	Ticketing system Evaluation-based selection & Partner availability

SERVICES & MORE



L1

*Porting AI
Applications &
Workflows to HPC*

L2

*Optimization &
Scaling of AI
Libraries on HPC*

L3

*Pre-training of
Large-Scale
Foundation
Models*

L4

*Specialization &
Fine-Tuning of
Foundation
Models*

L5

*Ethical &
Responsible AI
Support*

**Specialised/Advanced
trainings for the AI
communities
ICIAP – EurIPS**

**Catalogues of models and
datasets**

**Best Practice Guides on AI
on HPC**

Benchmarks reports

Who can access MINERVA support



MINERVA services are open to all actors in the European AI ecosystem – regardless of technical background or experience with HPC. If you're working with AI and face technical, scaling, or regulatory challenges, MINERVA is here to help.

We welcome requests from:

- **Academic researchers** (PhD students, postdocs, principal investigators)
- **Public sector teams** applying AI in areas like health, climate, education, or policy
- **Start-ups and SMEs*** developing AI-driven products or services
- **Larger companies*** with advanced or specialized AI use cases
- **AI engineers and developers** aiming to scale models or optimize performance
- **Project consortia** preparing proposals for national or European funding calls

📌 *No HPC access? We can guide you through the process of applying for resources, choosing the right infrastructure, and getting started with your first project.*

* subject to state-aid regulations

Partners



CINECA



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA



Get Involved!



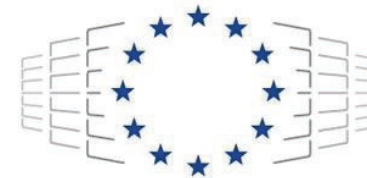
- Visit the MINERVA website <https://minerva4ai.eu>
- Follow our news on LinkedIn
<https://www.linkedin.com/company/minerva-european-support-centre-for-scalable-ai-research-and-deployment>
- Participate in our user needs survey!
- Submit your support request via the AISC portal
[support@minerva4ai.eu].



Reach out to me @ *l.morselli@cineca.it*



Thank you



EuroHPC
Joint Undertaking

This project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 101182737. The JU receives support from the Digital Europe Programme.



FORTISSIMO
PLUS

Supporting the competitiveness and innovation potential of SMEs: Fortissimo Plus (FFplus)

EuroHPC User Days 2025
Copenhagen

Guy Lonsdale, scapos AG

1 October 2025



www.ffplus-project.eu

Overview



- Intro to the Fortissimo Approach & the FFplus project
 - HPC for Business Innovation, Fortissimo Success Stories
- The FFplus open calls for Business Experiments and Innovation Studies
- Call Stats & Call News

Fortissimo & Fortissimo-2

Fortissimo – 2013-2016



- Business relevant investigations and demonstrations of simulation services in the Fortissimo HPC Cloud creating future business benefits for manufacturing SMEs

Fortissimo 2 – 2015-2018



- Demonstrating the business potential of an ecosystem for HPC-Cloud services, specifically for applications involving simulation of coupled physical processes or high-performance data analytics.



Political context

- All major economies world-wide are investing in large supercomputers on the road to Exascale
- EuroHPC is a major commitment by the European Union
- Business Case is for **Science and Industry**
- European citizens expect their taxes to be spent wisely for the good of everyone
- We must ensure our Universities **and** our Companies can access and benefit from investment in supercomputing



epcc

Funded under
H2020-JTI-EuroHPC-2019-2
1.9.2020-31.10.2023



FF4EuroHPC in numbers



6

project
partners



42

high-quality
experiments



€8

million
funding budget

Experiment partners



118 organisations

22 countries



wide variety of
industrial sectors,
focus on
manufacturing

57%

The Fortissimo Approach

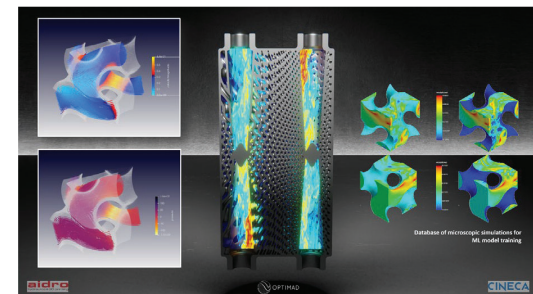
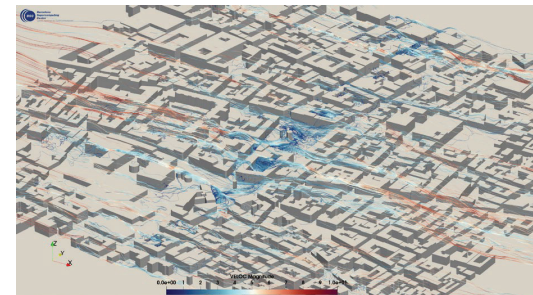
- Execution of „experiments“ with SMEs, delivering real business impact through use of HPC
- The bulk of project funding is used for these experiments and the highest quality, innovative SME-oriented experiments are acquired through the execution of **open calls for proposals**

<https://www.ff4eurohpc.eu/en/success-stories/>

1 October 2025

FF, FF-2,
FF4EuroHPC:

121 success stories were produced in collaboration with **310 partners** from **more than 20 European countries**.



Examples of business benefits



Multi-Head Additive Manufacturing with Optimal HPC Thermal Stabilization

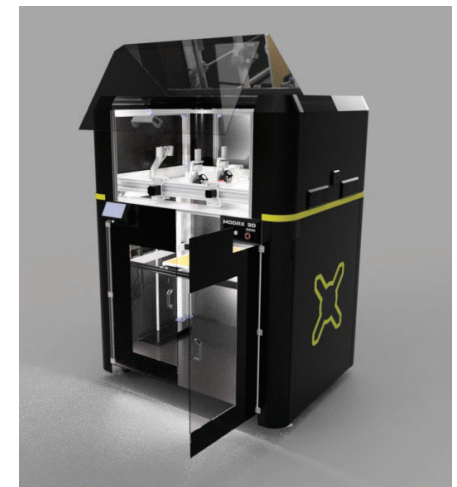
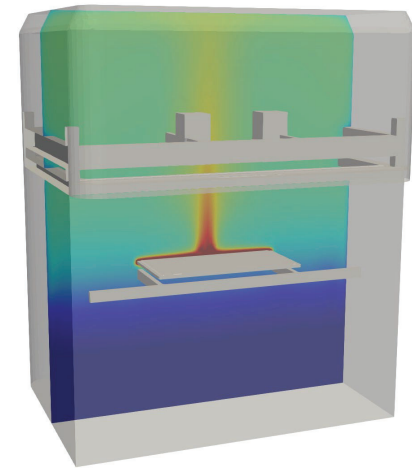
The vision of this experiment was to establish and predict the impact of this heat on the structure and motion system of the machine using HPC infrastructure.

Business Benefits

- Shortening of product delivery time to the customer **by 30-50%.**
- Cutting costs in production **by 15-30%.**
- Greater accuracy of 3D printers is expected to increase sales **by 20-30%.**
- Creation of jobs for new, highly skilled employees

End User: [Mikrotvornica](#)

HPC Center: [Ruđer Bošković Institute](#)



Examples of business benefits



Improvement of Productivity in Aquaculture

The experiment used HPC and AI to help aquaculture farms better manage volatility and boost productivity. By analysing data on fish behaviour, health, and growth, it enabled smarter decisions, reduced losses, and supported more stable and scalable operations.

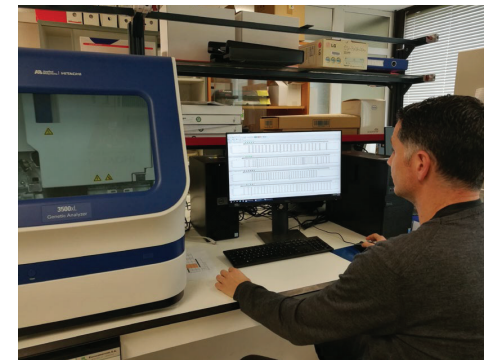
Business Benefits

- **30% reduction** in predictive model error through HPC
- **Shortening time to production** in new user facilities or new procedures by 50%
- **Business know-how** for data-driven decisions for aquaculture farmers
- **7% improvement in fish growth** for the end user

End Users: [Nueva Pescanova- Insuiña and Geneaqua](#)

Technology provider: [DEICOM](#)

HPC provider: [CESGA](#)





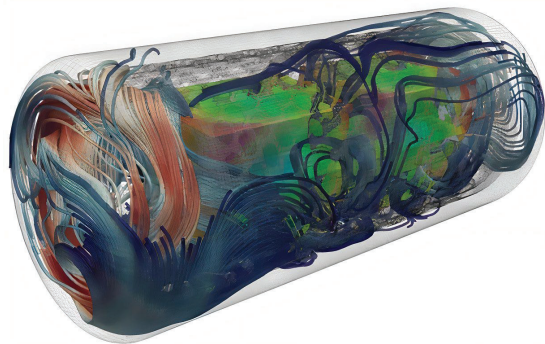
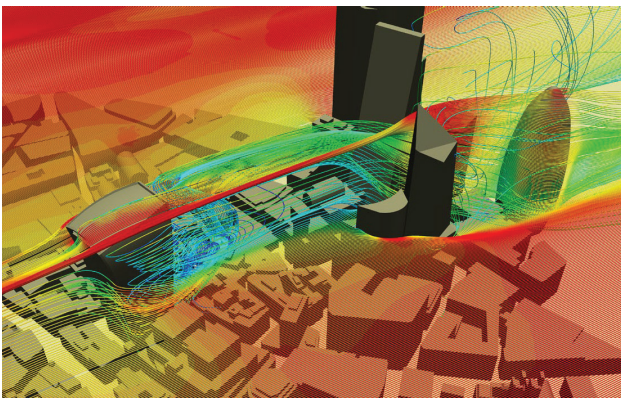
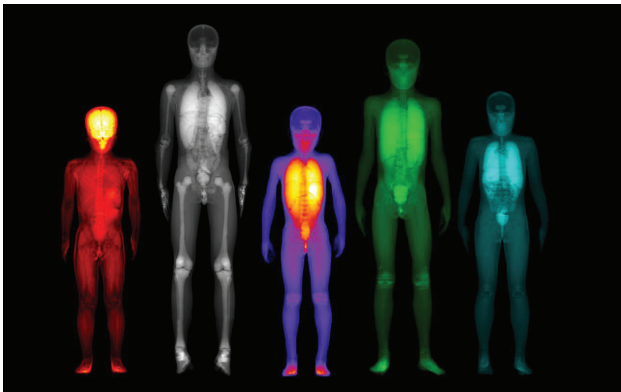
Success Stories

GET INSPIRED!

- Website presentation
- Videos
- Success Stories Booklets



1 October 2025



FFplus Consortium & Project Data



- Fortissimo Plus
- Funded by the EuroHPC JU action DIGITAL-EUROHPC-JU-2023-SME-01 "Supporting the competitiveness and innovation potential of SMEs".
- Commenced 1.5.2024; 48 months duration

- Coordinator 
High-Performance Computing Center Stuttgart

- Other Partners:



FFplus Objectives



Empower SMEs and Start-Ups with advanced computational capabilities based on HPC, enabling them to **drive innovation**, enhance competitiveness, and overcome challenges in the digitalisation of R&D and business processes.

FFplus will **execute 6 open calls** (3 for business experiments, 3 for innovation studies) with a funding budget of over 24 M€.



Solve your business challenges and shift to the next level with the help of HPC!



Participate in the Open Call for Business Experiments!



Business experiments

will address the uptake of HPC by SMEs new to using HPC to solve specific business challenges

1 October 2025

11



Enhance your innovation potential by leveraging
HPC-enabled Generative AI!

Participate in the Open Call for Innovation Studies!



Innovation studies

will support European
SMEs and Start-ups
already active in the field
of generative AI
technology, which lack the
necessary computational
resources to scale up.

HPC Computing Resources



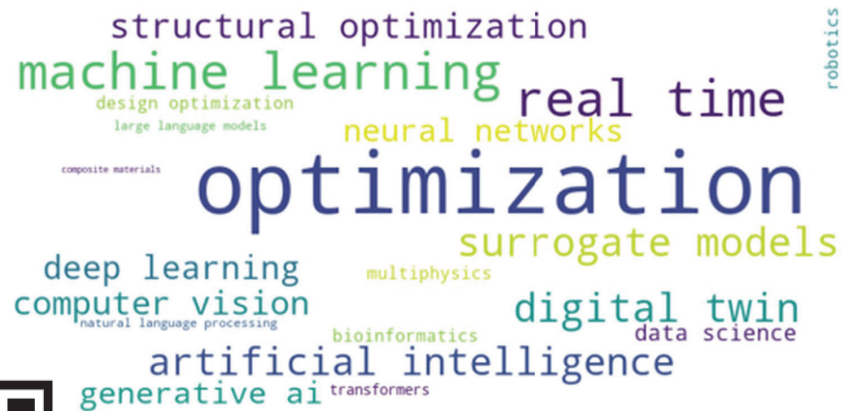
- There is an expectation that FFplus sub-projects make use of the HPC resources provided under the EuroHPC JU access schemes (use of nationally provisioned HPC resources is considered equivalent).
- FFplus cannot provide computing resources itself, nor does it have any special allocation of time on the EuroHPC JU systems.



OPEN CALL-1 STATS – Business Experiments:

126 proposals from 30 countries, involving 183 SMEs and 40 other organizations.

19 business experiments are funded, including participants from **15 EU countries**.

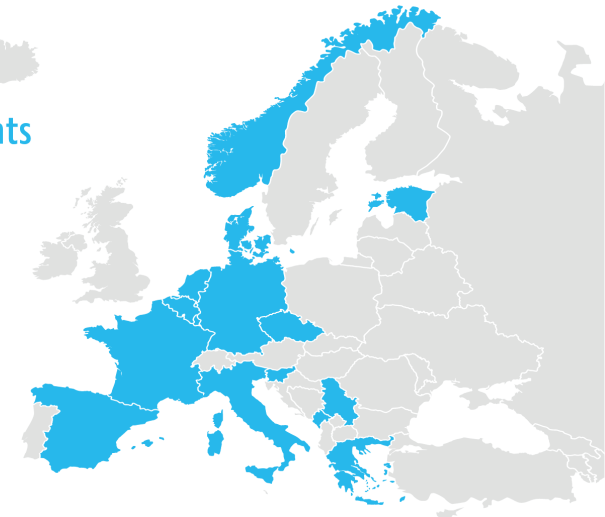


FFplus Open Call 1

Business Experiments
Funded Subprojects

19 proposals submitted from
15 countries*
34 SMEs and
9 other organisations.

*countries associated with the EU Digital Europe programme



Belgium, Czechia, Denmark, Estonia, France, Greece, Germany, Italy, Luxembourg, Montenegro, the Netherlands, Norway, Serbia, Spain and Slovenia

OPEN CALL-1 STATS – Innovation Studies: Country Statistics

The Innovation Studies Call attracted **62 proposals from 24 countries**, involving 83 SMEs and 36 other organizations.

18 innovation studies are funded, including participants from **14 European countries**.



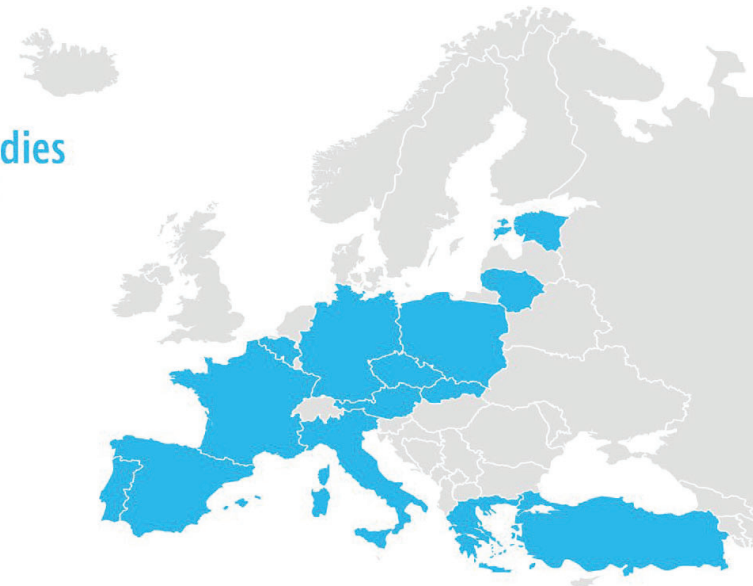
FFplus Open Call 1

Innovation Studies Funded Proposals

18 proposals funded
14 countries*
20 SMEs and
16 other organisations.

*countries associated with the EU Digital Europe programme

Austria, Belgium, Czechia, Estonia, France, Greece, Germany, Italy, Lithuania, Poland, Portugal, Spain, Slovakia and Turkey.



Open Call News



“Spoiler” (Website news and detailed stats to follow):

2nd Call for Business Experiments – 350 submissions (!), Evaluation ongoing, expect news on proposals selected early in 2026.

Main Participant SMEs from 34 countries.

2nd Call for Innovation Studies:

- Deadline: February 25th, 2026 at 17:00 Brussels local time.
- Expected duration of innovation studies: 10 months, with targeted commencement July 1st, 2026.
- Indicative total funding budget = € 4M.

FFplus_Call-2-Type-2



Second call for innovation studies for the development of generative AI models

- Deadline: **February 25th, 2026** at 17:00 Brussels local time
- Expected duration of innovation studies: 10 months, with targeted commencement **July 1st, 2026**
- The indicative total funding budget for all innovation studies funded under this call is € 4M.



FORTISSIMO
PLUS

→ Panel Discussion

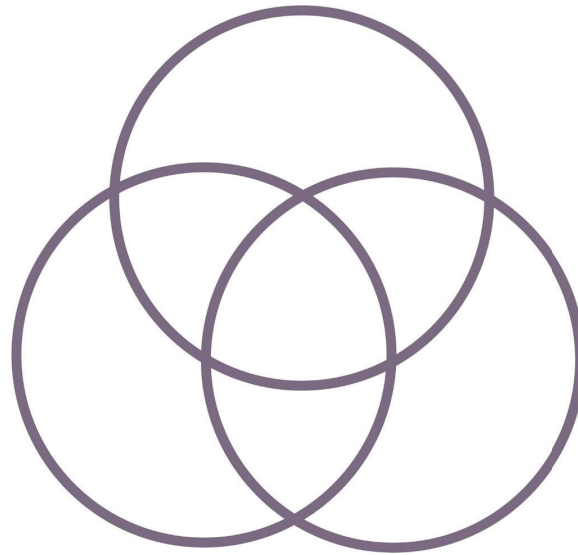


EuroHPC
Joint Undertaking

This project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 101163317. The JU receives support from the Digital Europe Programme.



www.ffplus-project.eu



CASTIEL 2

Coordination and Support for National Competence Centres and
Centres of Excellence on a European Level Phase 2

Natalie Lewandowski, HLRS

EuroHPC User Days Copenhagen 30.09.2025

CASTIEL 2: the NCC and CoE network



Mission:
Support and connect the **NCCs** & **CoEs**

- EuroCC 2 and EuroCC4SEE comprise 33 National Competence Centres in HPC in Europe
- 14 Centres of Excellence in HPC Applications



What services do the NCCs offer?



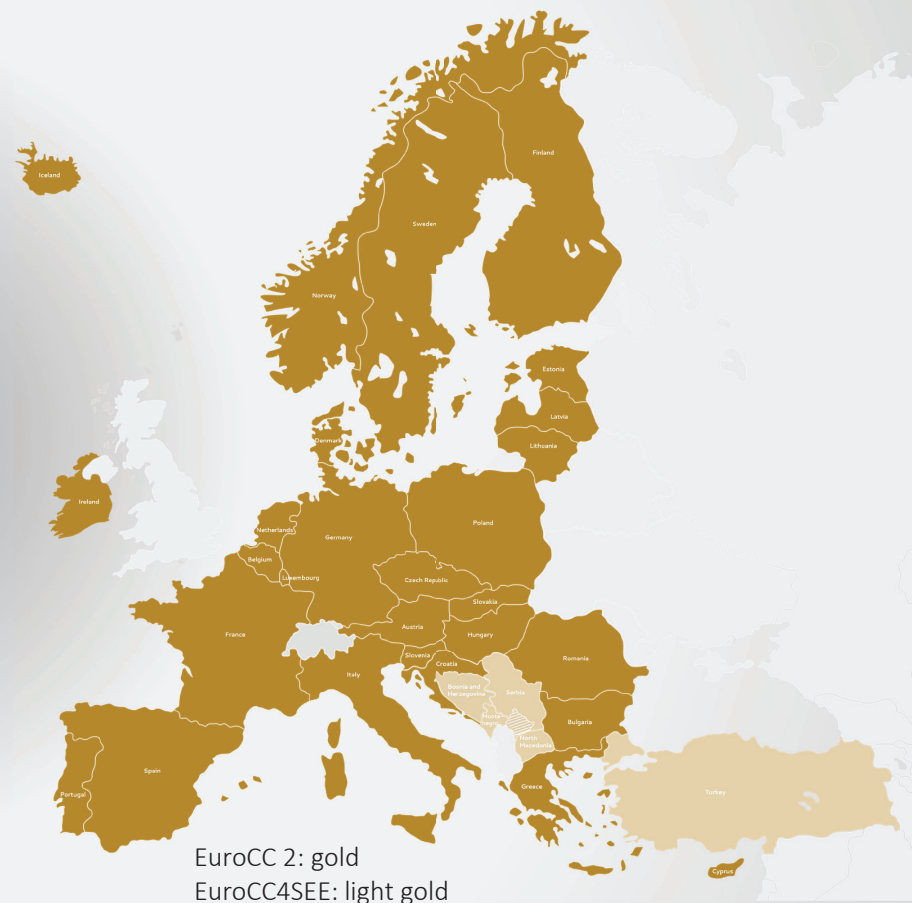
EURO²



EURO

^{4SEE}

- Support users in their respective country in
 - ✓ High-Performance Computing (HPC)
 - ✓ High-Performance Data Analytics (HPDA)
 - ✓ Artificial Intelligence (AI)*
- Provide services to users from **industry**, academia and public administration
- Single points of contact for HPC and associated technologies



Services for Users



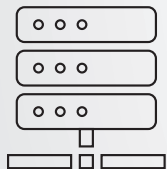
Training and Expertise

- Hands-on training courses and workshops
- Access to expert knowledge in HPC, HPDA, and AI*



Access to services

- National and European-level capabilities
- Tailored support in HPC and related technologies



Access to technology

- Supported access to supercomputers
- Guidance and hands-on help with proposals



HPC+ for everyone

- Services for all levels: beginners to experts
- For users in industry, academia, and public administration

new FF+ call opens December 2025 – February 2026

Advantages



One-stop shop



Local and accessible



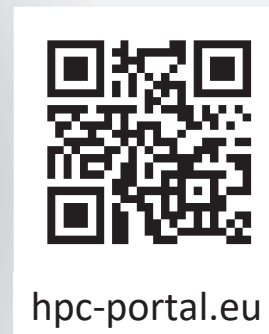
Connected throughout Europe



Free of charge



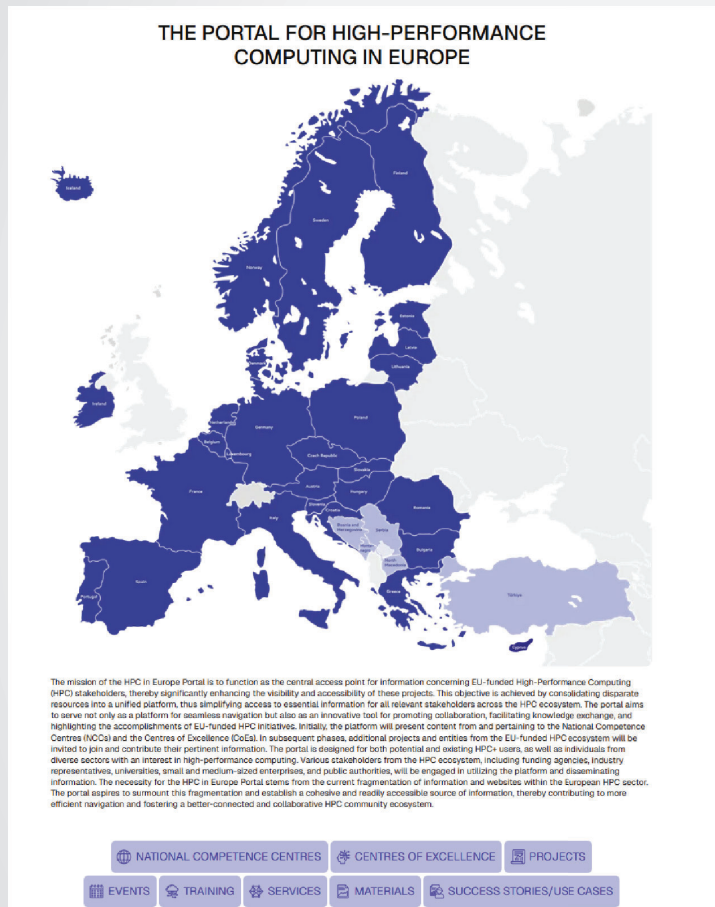
Where to find us?



hpc-portal.eu

*Collaborative work of CASTIEL 2 with HPC Spectra.

HPC in Europe Portal



The Portal for High-Performance Computing in Europe

- NCCs
- CoEs
- Information
- Competences
- Training courses
- Events
- Contents
- Documents as results of workshops
- Funding opportunities
- Videos from events and workshops
- ...



hpc-portal.eu

Training, News & Events



EVENTS

Stay informed about upcoming events in High-Performance Computing (HPC). From conferences and workshops to webinars, this section highlights opportunities to connect, learn, and collaborate with experts across the HPC ecosystem. Don't miss your chance to engage with the community.

04/07/2025 - 04/07/2025

ONLINE



GCS INFO EVENT: AI ON GCS SUPERCOMPUTERS - PROJECT CALL INFORMATION

Do you need compute time for AI projects? Is your workstation or university cluster too small? A new call for projects on the Gauss Centre for...

[READ MORE](#)

16/06/2025 - 20/06/2025
NAPLES, ITALY

IN PERSON



CINI 3RD INTERNATIONAL SUMMER SCHOOL ON HIGH-PERFORMANCE COMPUTING FOR SCIENCE...

The Summer School offers an intensive program on the entire hardware and software stack. This co-design perspective is essential for designing High...

[READ MORE](#)

28/05/2025 - 28/05/2025
BERGAMO, ITALY

IN PERSON



OPENFOAM: AN OPEN TOOL FOR VIRTUAL PROTOTYPING

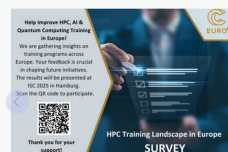
Virtual prototyping has become essential for companies aiming to innovate and grow. With the help of HPC resources, businesses can create digital...

IN THE SPOTLIGHT

Keep up with the most recent updates and developments in the High-Performance Computing (HPC) ecosystem. This section highlights key announcements, project news, and important milestones, keeping you connected to the dynamic world of HPC across Europe.

10/04/2025

IN THE SPOTLIGHT



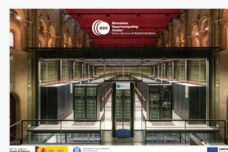
SURVEY: HPC TRAINING LANDSCAPE IN EUROPE

HPC Training Landscape in EuropeThe survey's primary goal is to gather insights from various European communities on HPC, AI, and Quantum Computing...

[READ MORE](#)

02/03/2025

IN THE SPOTLIGHT



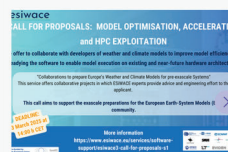
NEWS FROM THE CENTRE OF EXCELLENCE IN EXASCALE CFD

Swimming with the Flow: walBeria Simulations with Vistefwo-years into CEEC, we're starting to see how we'll help push computational fluid dynamics...

[READ MORE](#)

13/02/2025

IN THE SPOTLIGHT



NEWS FROM ESIWACE3

Open Call for Proposals to Advance Europe's Weather and Climate Models for Pre-Exascale SystemsThe ESIWACE3 Consortium is excited to announce an open...

[READ MORE](#)

SHORT COURSES

ACADEMIC PROGRAMMES

STUDY MODULES

MATERIAL

ARCHIVE SHORT COURSES

SHORT COURSES

25/11/2025

STUTTGART, GERMANY

HYBRID

H L R I S

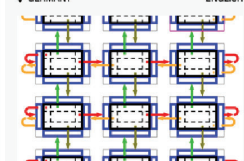
MODERN C++ SOFTWARE DESIGN

is both advanced C++ aware design...

03/11/2025

GERMANY

ONLINE



SUPERCOMPUTING ACADEMY: PARALLEL PROGRAMMING WITH MPI

MPI is a communication protocol for parallel programming based on message exchange between...

[READ MORE](#)

23/10/2025

STUTTGART, GERMANY

IN-PERSON



SCIENTIFIC VISUALIZATION

This course is targeted at researchers with basic knowledge in numerical simulation, who would like...

[READ MORE](#)



hpc-portal.eu

Codes & Competences

COMPETENCE MAP

Changes will be visible when competences are selected. Please see explanations below.

FILTERS

EXPERIENCE LEVEL

Advanced
Intermediate

COMPETENCE

Big Data and Artificial Intelligence
-AI on HPC
-BIG DATA TOOLS IN HPC - MANAG
-DATA MANAGEMENT
-DATA STORAGE
-Machine Learning and/or Deep Lea
-ML and DL applications to solve sp
-MLOPS TOOLS
Building and Deploying Parallel Pro
Code Optimization

Select/unselect a single or multiple items by holding the str or cmd key and clicking on the item

APPLY



Leaflet | © OpenStreetMap contributors | Tiles © Esri — Esri, DeLorme, NAVTEQ



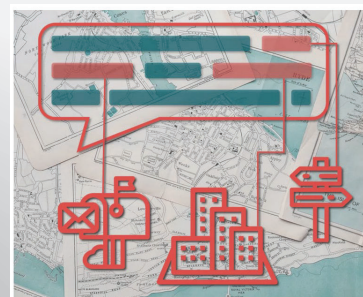
hpc-portal.eu

Success stories

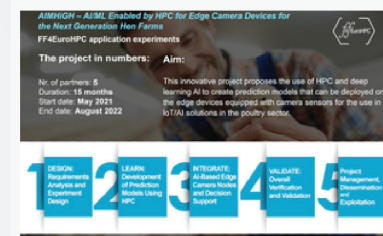


TRANSFER AND OPTIMIZATION OF CFD CALCULATIONS WORKFLOW IN HPC ENVIRONMENT

Shark Aero company designs and manufactures ultralight sport aircrafts with two-seat tandem cockpit. For design development they use popular open...

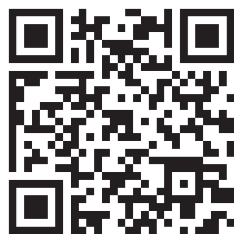


NAMED ENTITY RECOGNITION FOR ADDRESS EXTRACTION IN SPEECH-TO-TEXT TRANSCRIPTIONS USING SYNTHETIC DATA



DIGITALSMART AND DUNAVNET TO PROVIDE AI EDGE SOLUTION FOR POULTRY INDUSTRY...

Organisations & Codes Involved: DigitalSmart is a coordinator of a new H2020 project: called AIMHIGH that is...



Predict the Damage to infrastructures caused by storms and map more precisely the risks of claims for insurance

The French NCC-CC-FR, dedicated to HPC, HPDA and AI technologies, brings together the community of technology providers and users. CC-FR federates the HPC, HPDA and AI ecosystem and supports SMEs on the use of intensive computing, high-performance data analysis and artificial intelligence.



Low-latency AI-based Gesture Recognition

NCC-Bulgaria was founded by the Institute of Information and Communication Technologies at the Bulgarian Academy of Sciences, the Sofia University "St. Kliment Ohridski" and the University of National and World Economy.

NCC-Bulgaria is focused on:

- Creating a roadmap for successful work in the field of high-performance computing, big data analysis and artificial intelligence.
- Analyzing the existing competencies and facilitating the use of HPC/HPDA/AI in Bulgaria.
- Raising awareness and promoting HPC/HPDA/AI use in companies and the public sector.

<https://hpc-portal.eu/materials>

CASTIEL 2

WEBINAR || 3rd "Industry Sector of the Month" About ...
 WEBINAR || 3rd "Industry Sector of the Month" about "Manufacturing & Engineering [NCC Portugal and NCC Bulgaria / CoEs / CASTEL 2 / CASTEL 2]"

WORKSHOP || CODE OF THE MONTH VOL. 13 [PLASMA PEPS/CASTEL 2]
 WORKSHOP || Code of the Month vol. 13 [PLASMA PEPS/CASTEL 2]

WORKSHOP || "DOS & DON'TS" WORKSHOP VOL. 6 [NCCS / COES / ...]
 WEBINAR || "Dos & Don'ts" workshop Vol. 6 [NCCs / CoEs / CASTEL 2]

WEBINAR || 3RD "INDUSTRY SECTOR OF THE MONTH" ABOUT ...
 WEBINAR || 3rd "Industry Sector of the Month" about "Manufacturing & Engineering [NCC Portugal and NCC Bulgaria / CoEs / CASTEL 2 / CASTEL 2]"

WORKSHOP || CODE OF THE MONTH VOL. 13 [PLASMA PEPS/CASTEL 2]
 WORKSHOP || Code of the Month vol. 13 [PLASMA PEPS/CASTEL 2]

WORKSHOP || "DOS & DON'TS" WORKSHOP VOL. 6 [NCCS / COES / ...]
 WEBINAR || "Dos & Don'ts" workshop Vol. 6 [NCCs / CoEs / CASTEL 2]

ABOUT THE COE || CEEC
 About the CoE || CEEC

INTRODUCTIONS TO THE COES
 [CASTEL 2, BIOEXCEL, CEEC, CHEESE, EOCOE, ESIWACE, ...]
 Introductions to the CoEs [CASTEL 2, BioExcel, CEEC, CHEESE, EoCoE, ESIWACE, EXCELLERAT, HIDALGO, MaX, MultiXscale, POP]

WORKSHOP|| IDENTIFY SKILLS AND TRAINING NEEDS FOR QUANTUM COMPUTING - INDUSTRY...
 WORKSHOP|| Identify Skills and Training Needs for Quantum Computing - Industry Viewpoint [EuroCC 2 / CASTEL 2]



Get in touch with your NCC



Ask them for support on:

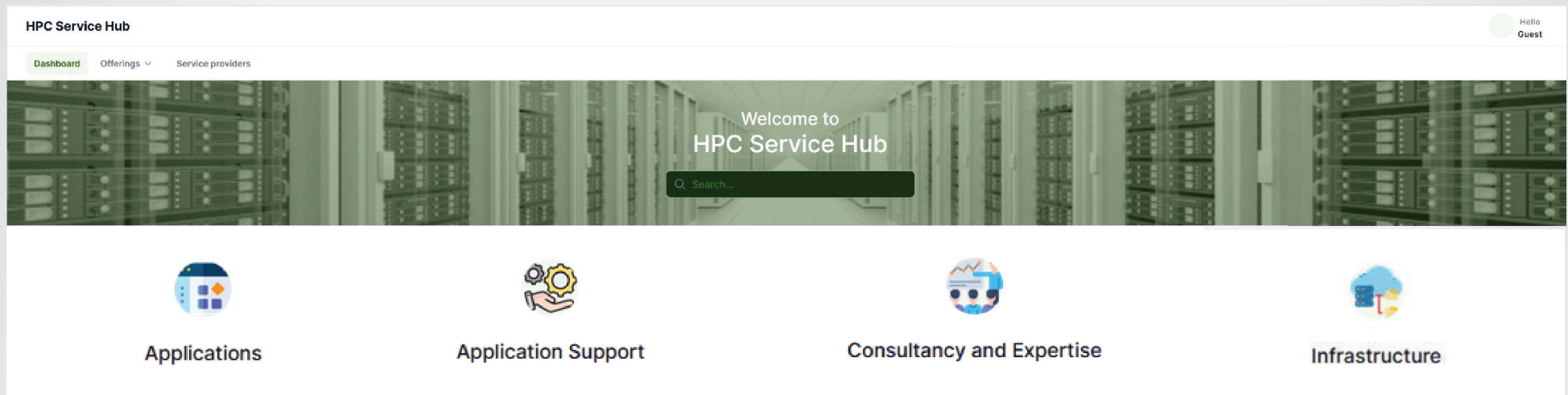
- training
- access to the EuroHPC machines
- access to HPC knowledge & expertise
- utilising HPC in the best way possible
- ...



hpc-
portal.eu/nccs

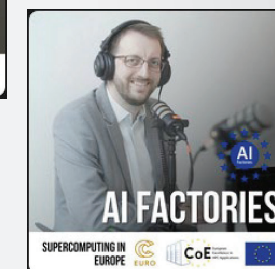
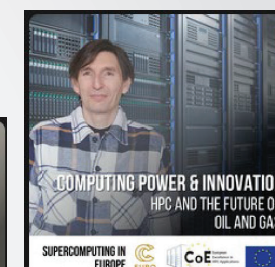


Find all the services: HPC Service Hub



hpcservicehub.eu

Supercomputing in Europe Podcast



Spotify: <https://lnkd.in/ewiUzxUE>

Apple podcasts: <https://lnkd.in/enRtbWGa>

and many more episodes

Thank you!



Dr. Natalie Lewandowski
Head, Business & Project Management

High-Performance Computing Center Stuttgart (HLRS)
Email: natalie.lewandowski@hlrs.de
Web: www.hlrs.de



**Co-funded by
the European Union**



EuroHPC
Joint Undertaking

CASTIEL 2 has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 101102047. The JU receives support from the European Union's Digital Europe Programme and Germany, Italy, Spain, France, Belgium, Austria, Estonia.

EuroCC 2 and EuroCC4SEE have received funding from the European High Performance Computing Joint Undertaking (JU) and Germany, Bulgaria, Austria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Poland, Portugal, Romania, Slovenia, Spain, Sweden, France, Netherlands, Belgium, Luxembourg, Slovakia, Norway, Türkiye, Republic of North Macedonia, Iceland, Montenegro, Serbia, Bosnia and Herzegovina under grant agreement No 101101903 and No 101191697.



EPICURE

Services for EuroHPC Users

EuroHPC User Days, 30 Sep 2025

Janne Ignatius, CSC
Coordinator of EPICURE Project



Co-funded by
the European Union



EuroHPC
Joint Undertaking

This project has received funding from the European High Performance Computing Joint Undertaking under grant agreement No. 101139786. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or EuroHPC Joint Undertaking. Neither the European Union nor the granting authority can be held responsible for them.

About our HPC Support

What we do

- Performance analysis and profiling
- Debugging and optimisation
- Scaling and porting to EuroHPC systems
- Bottleneck identification removal
- Tailored hands-on HPC consulting

What you gain

- Faster, more efficient applications
- Full use of EuroHPC capabilities
- Higher throughput and resource efficiency
- More simulations and results within the same allocation

The goal is simple: more computation, better performance, and greater scientific output from your existing allocation

Support Levels



2nd Level Support

Code Porting, Enabling and Scaling

Work limited to 1-2 months with focus in compilation improvements, vectorization and scalability analysis



3rd Level Support

Code Optimization

Handling large-scale workloads with durations of 2 to 6 months, focused on performance improvements that require code modifications, such as inter-node optimizations, GPU porting and scalability improvements



While leveraging ecosystem developments
e.g. EPICURE has collaborated with POP CoE in code support and tools by completing two performance analyses using POP metrics – EPICURE GPU Hackathon (Oct 2024, Bologna)

Supported EuroHPC User Projects

First 18 Months of EPICURE

81

Projects supported
(support completed
or support ongoing)

Working towards a close collaboration with European initiatives, such as EFP, CASTIEL, MINERVA, HPC Spectra and EVITA providing key resources for HPC end users

Aiming to define the user journeys in the EuroHPC ecosystem for quick access and ease of use

Supported Research Example

Project Name

From Methane and Iron Nanoparticles to "Turquoise" Hydrogen and Carbon Nanotubes: Simulating the Entire Catalytic Process Inside a Reactor

Project Summary

This project uses atomistic simulations to explore the production of turquoise hydrogen, a sustainable pathway that transforms methane into clean hydrogen without releasing greenhouse gases. Instead, carbon by-products are captured and converted into valuable carbon nanotubes, turning waste into high-performance materials.

EuroHPC Machine

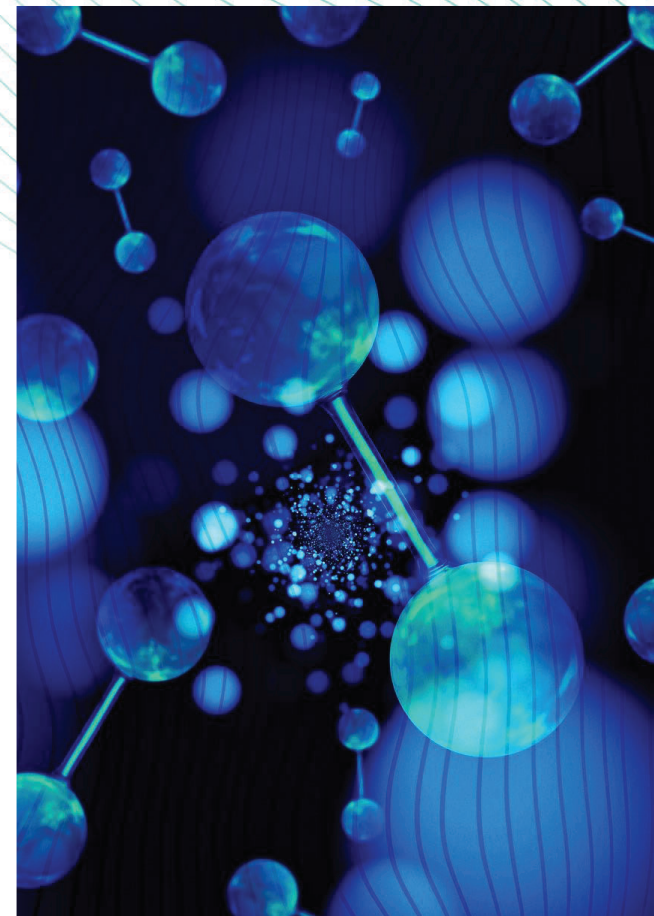
Leonardo

Area

Physics/Chemistry

EPICURE Activity

- **WP2** provided assistance in the deployment of the Leonardo+ADACloud system and upgraded the conda environment to allow for the latest versions of numpy/scipy and pymatgen
- **Under the WP3 support**, the conda environment upgrade resulted in a **20X** speed-up in the RBF interpolation! (netlib vs openblas)



Training Events

Empowering researchers
to fully exploit EuroHPC
systems

- Hands-on workshops and hackathons;
- Thematics tutorials and webinars;
- Best practices guides;
- ... and so much more!

All events – past and future –
available here*:



Participants leave with practical expertise,
enabling them to run faster, larger, and more
efficient simulations on EuroHPC machines.

* <https://epicure-hpc.eu/events/>

European HPC Application Support Portal

- The **single point of contact** in the form of a **European HPC Application Support portal**
- Allow European HPC users to retrieve information on the systems offered by the EuroHPC JU, their architectures, access mechanisms, and the support services available.
- The **straightforward application process** central to the Portal – to become **the technical knowledge base for HPC JU User Support – focus on hands-on technical resources**
- Formally launched at the EuroHPC JU User Days 2025 : <http://eurohpcsupport.eu/>



Focus on Hands-on Technical Resources



15/04/2025

Exploring ARM in HPC:
Highlights from the EPICURE



21/11/2024

Unlocking European-level
HPC Support



ALICIA OLIVEIRA

Guarda su YouTube EPICURE is a project that demystifies the complexity

OUR MISSION

The EuroHPC Application Support Project EPICURE draws on the experience and knowledge of the current and future EuroHPC supercomputer hosting organisations to provide users with Level 2 and Level 3 support services, with a more technical component than previously available, over a period of 3 to 18 months.

Services provided by the EPICURE include code activation and scaling, performance analysis and benchmarking, code refactoring and code optimisation.

In order to promote the exchange of knowledge, the project will also organize architecture specific trainings, hackathons, webinars and workshops in several EU countries.

ABOUT US

21/05/2025

EPICURE: Empowering
European Researchers with
Optimised HPC

READ MORE



25/06/2025

EPICURE Project
Showcased at ISC 2025 –
Europe's Leading HPC...

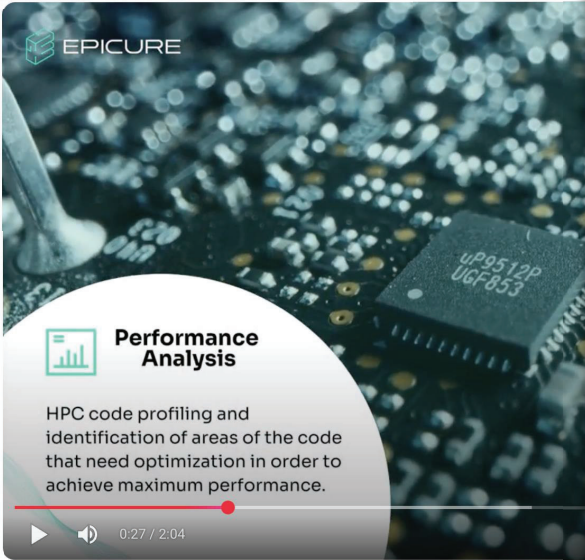
READ MORE



02/04/2025

EPICURE highlights HPC
support services at
EuroHPC Summit 2025

READ MORE



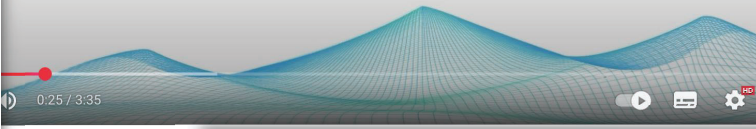
Performance Analysis

HPC code profiling and
identification of areas of the code
that need optimization in order to
achieve maximum performance.



0:27 / 2:04

TESTIMONIALS FROM OUR APPLICATION SUPPORT TEAMS



Application Support

EPICURE's Webinars

EPICURE Project - 1/5



Webinar | Unlocking Exascale: A First
Look at JUPITER

EPICURE Project



Webinar EPICURE | Building Software
With Ease: an Introduction to EasyBuild

EPICURE Project



Webinar EPICURE | Streaming
Optimised Scientific Software: an...

EPICURE Project



Webinar EPICURE: Heterogeneous
computing with SYCL and oneAPI on...

EPICURE Project



EPICURE Webinar: Scientific
Visualisation at the Argonne Leadershi...

EPICURE Project

Need to Optimise Your Code on EuroHPC Supercomputers?

Who's eligible?

Having a EuroHPC JU allocation project is **required**!

Don't have one yet? **We can even help** you to apply!



Ready to optimise?

Request support: You can request EPICURE support.

<https://pm.epicure-hpc.eu/> -- <http://eurohpcsupport.eu/>



Do you **need a EuroHPC allocation**? Check the EuroHPC Access Calls!

https://www.eurohpc-ju.europa.eu/supercomputers/supercomputers-access-calls_en





EPICURE
Unlocking European-level HPC Support

Thank you!



pmo-epicure@postit.csc.fi

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

Follow us



**Co-funded by
the European Union**



EuroHPC
Joint Undertaking

This project has received funding from the European High Performance Computing Joint Undertaking under grant agreement No. 101139786. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or EuroHPC Joint Undertaking. Neither the European Union nor the granting authority can be held responsible for them.

LUMI AI Factory

User interaction for data-driven discovery and innovation

Dr. Pekka Manninen

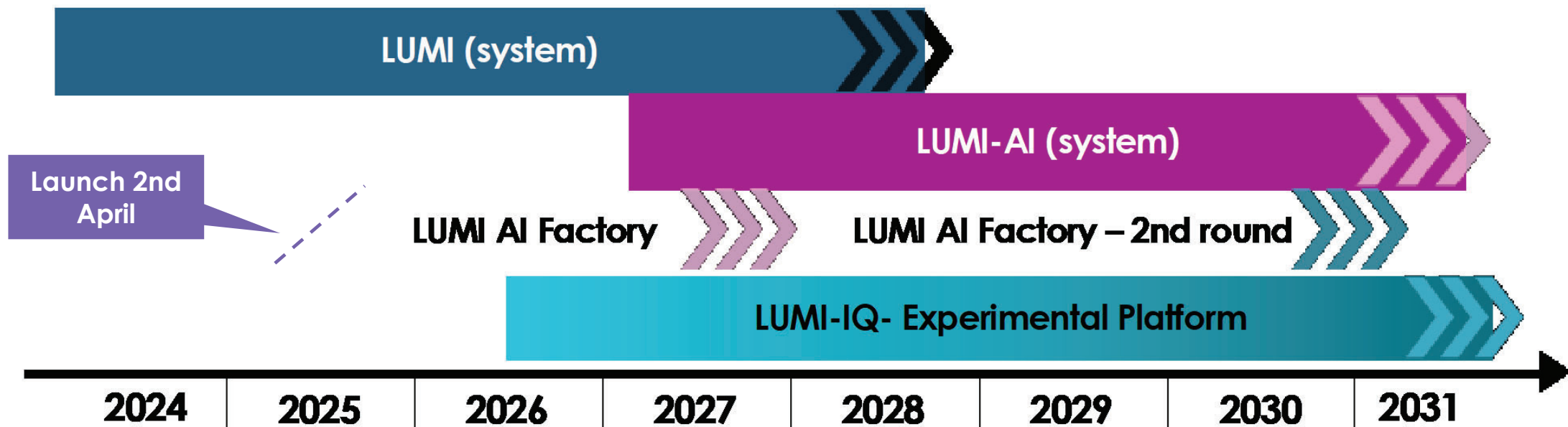
Director, LUMI AI Factory

CSC - IT Center for Science, Finland

- Largest of the EuroHPC AI Factory investments (612 M€ total budget)
- The three pillars of LUMI AI Factory
 - AI-optimised supercomputer **LUMI-AI**
 - AI Factory **Service Center**
 - Experimental quantum-computing platform **LUMI-IQ**
- CSC (Finland) coordinates consortium with participation from Czechia, Denmark, Estonia, Norway and Poland

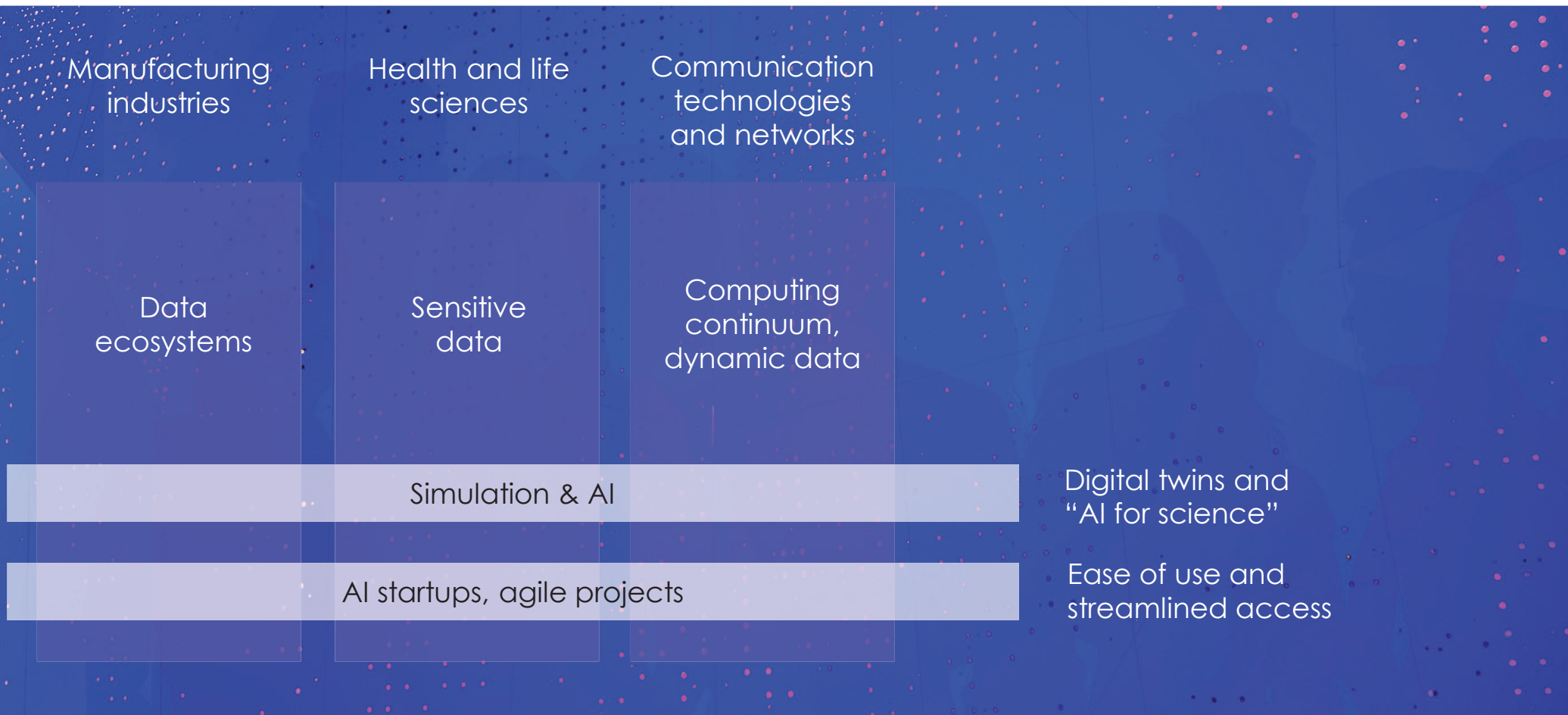
LUMI AI Factory timeline

L U M I AI Factory



Key industrial sectors and focus areas

LUMI AI Factory



Services: **COMPUTE**



Computing capacity never seen before

- Globally **leading AI training with massive GPU capacity and fast & large data storage (shared & dedicated)**
- **AI model serving at scale** for "every open model out there"
- **Customisable environments** with virtual clusters to match every need
- API-based access and recipes for **automation and public cloud integration**
- **Quantum capacity** for next-level QC-AI

LUMI AI Factory



Expert support all the way

- **Friendly human support** for getting started and all the way to deep AI methods and scalability
- Accelerated adoption with **self-service environment, thorough documentation and AI assistants**
- Supported **MLOps environment** and recipes

Services: **DATA**

LUMI AI Factory



Data access is the priority

- Make data manageable with **cloud-like data environment**
- **Datasets-as-a-Service:** previously inaccessible datasets made available
- Remove data access barriers with **sensitive data services and access authorisation mechanisms**
- Direct connections to **data spaces and data repositories**



Data support that goes the extra mile

- **Data team for sourcing, negotiating and curating high-value datasets**
- Help with the necessities: data wrangling & data engineering
- Support **streaming data** into the supercomputer

Services: **TALENT**

LUMI AI Factory



Training the latest skills & technology

- **Co-create with AI centers**
- Provide **structured training paths** for AI and HPC
- **Tailor training** for different domains



Consultation with company focus

- Remove friction with **starter pack & feasibility analysis**
- Weave AI Factory into **existing networks and ecosystems**



Focus on AI adoption

- Offer **time-limited interventions** to step up AI adoption in companies' RDI
- **Long-term access** to the platform, support and training
- Support in applying for **large resources** & providing **fast lanes**



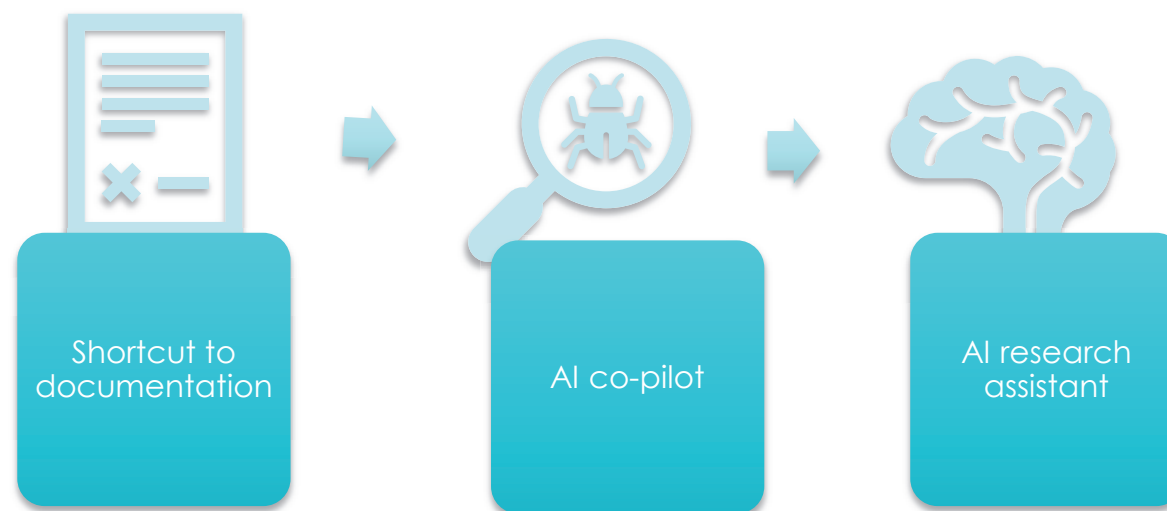
AI Factory Hub: engage the next-generation talent

- **Co-working hub** on grounds of Aalto University & ELLIS Institute
- Network of satellite hubs & virtual co-working space
- Running & supporting **hackathons, challenges and accelerators**

Lumia, Lumi's AI assistant

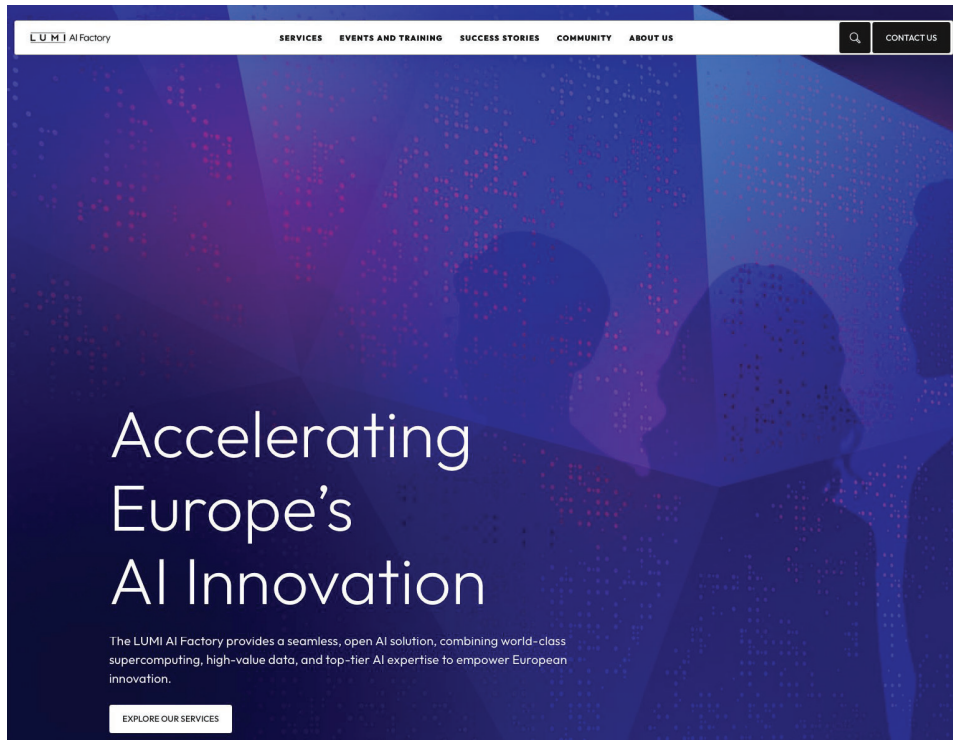
LUMI AI Factory

- An LLM-based AI assistant to help users in using a supercomputer system
- **Replacing and complementing** support received from traditional sources like **user documentation, helpdesk** and **expert consultation**, to increase researcher's productivity



Go explore our service catalogue **lumi-ai-factory.eu**

You can register for trainings and events, and access services for computing, data, consultation - and much more.



The image shows the top section of the LUMI AI Factory website. It features a dark blue background with a pattern of small white dots and silhouettes of people. The header includes the LUMI AI Factory logo, navigation links (SERVICES, EVENTS AND TRAINING, SUCCESS STORIES, COMMUNITY, ABOUT US), a search icon, and a CONTACT US button. The main content area has the text "Accelerating Europe's AI Innovation" and a description of the LUMI AI Factory's mission. A button labeled "EXPLORE OUR SERVICES" is at the bottom.

LUMI AI Factory

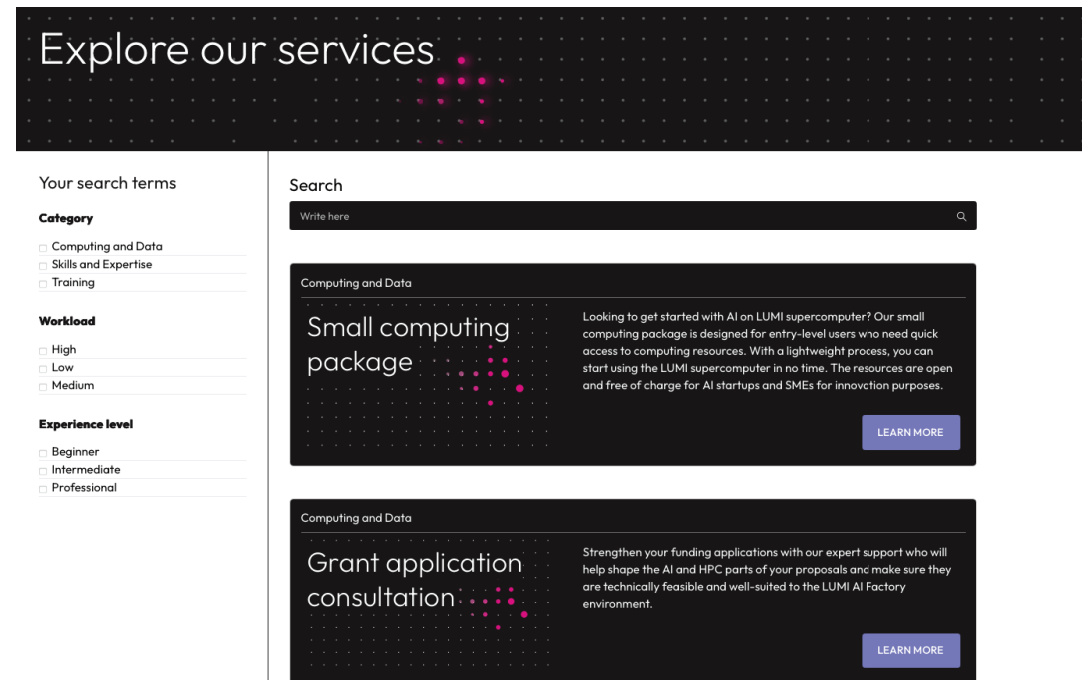
SERVICES EVENTS AND TRAINING SUCCESS STORIES COMMUNITY ABOUT US

CONTACT US

Accelerating Europe's AI Innovation

The LUMI AI Factory provides a seamless, open AI solution, combining world-class supercomputing, high-value data, and top-tier AI expertise to empower European innovation.

EXPLORE OUR SERVICES



The image shows the service catalogue section of the LUMI AI Factory website. It features a dark background with a pattern of small white dots. The main heading is "Explore our services". Below this is a search bar and a list of search terms. The catalogue is organized into three sections: "Category", "Workload", and "Experience level". Each section has a list of options with checkboxes. The "Category" section includes "Computing and Data", "Skills and Expertise", and "Training". The "Workload" section includes "High", "Low", and "Medium". The "Experience level" section includes "Beginner", "Intermediate", and "Professional". Below these sections are two service cards. The first card is titled "Small computing package" and describes a service for entry-level users. The second card is titled "Grant application consultation" and describes a service for strengthening funding applications. Both cards have a "LEARN MORE" button.

Explore our services

Your search terms

Category

- ☐ Computing and Data
- ☐ Skills and Expertise
- ☐ Training

Workload

- ☐ High
- ☐ Low
- ☐ Medium

Experience level

- ☐ Beginner
- ☐ Intermediate
- ☐ Professional

Search

Write here

Computing and Data

Small computing package

Looking to get started with AI on LUMI supercomputer? Our small computing package is designed for entry-level users who need quick access to computing resources. With a lightweight process, you can start using the LUMI supercomputer in no time. The resources are open and free of charge for AI startups and SMEs for innovation purposes.

LEARN MORE

Computing and Data

Grant application consultation

Strengthen your funding applications with our expert support who will help shape the AI and HPC parts of your proposals and make sure they are technically feasible and well-suited to the LUMI AI Factory environment.

LEARN MORE



Bastian Koller, Coordinator of HammerHAI, koller@hlrs.de

The German AI Factory for Industry and Science, HammerHAI, supports start-ups, SMEs, industrial companies and scientific institutions with state-of-the-art AI solutions for technology, manufacturing and global challenges, thereby promoting innovation, economic growth and transformative progress throughout Europe.



Germany's first AI Factory with industrial focus

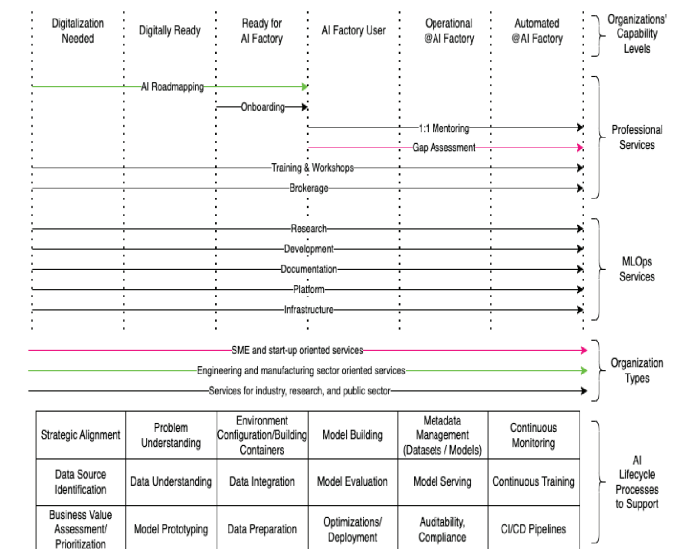
H L R I S

- Focus on start-ups, SMEs, industry, science and the public sector
 - Thematic focus: engineering, manufacturing, global challenges...
- Based on experiences of the partners
 - Currently more than 70 customers using systems for production
 - Porsche, Trumpf, Festo, ...
 - ISO 27001 and TISAX Level 3 certification
 - Established ecosystem for industrial but also science enquiries

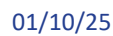


Focus

- Fine-tuning pre-trained models with initially moderate resource requirements, which will increase continuously in the following years.
- Querying an AI model in production (inference in production)
- Providing a secure environment for training and inference
- Supporting easy migration of existing (cloud) workloads to HammerHAI
- Executing containerised applications
- Easy access to data and computing resources
 - Tailored support for users, especially when onboarding companies
 - A software ecosystem and job submission similar to that in the cloud are essential



H L R **I** S



Current status

H L R I S

- Services/Support:
 - In operation since April 2025
 - For the moment use of existing ressources of the partners
- HammerHAI – AI-Optimised Supercomputer:
 - Currently under procurement
 - Operational the latest Q2 2026



Thank you!



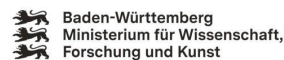
Bastian Koller, Coordinator
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EuroHPC
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« **AI** Factory **France** a one stop-shop to foster the use of AI in science, industry and public services »



EuroHPC User Days 2025



30/09/2025



GENCI, A FRENCH HPC RESEARCH INFRASTRUCTURE

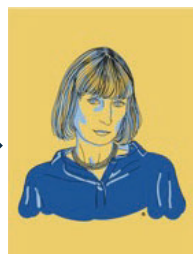
Serving yearly 2200 research projects in HPC and AI (academia, industry)



EuroHPC
Joint Undertaking



France
Universités



TGCC/CEA - Ile de France

- **Hosting Site** for the 2nd Exascale system (**EuroHPC**) called Alice Recoque end of 2026
- Hosting Site for the 1st **hybrid HPC + Quantum computing infrastructure** (HQI, HPCQS, EuroQCS-France)



IDRIS/CNRS - Ile de France

- 1st  **converged HPC/AI system** (#AIForHumanity)
- Bring **sovereign** computing facilities / services to AI research community
- **> 3800 GPUs in 2025**



CINES/FU - Montpellier

- **> 90 PF** with AMD next gen GPUs (>1500) & CPUs (>100k)

>1400 AI projects in 2024
3 keys of success -> GPUs, **user support** and access modes



AI FACTORY FRANCE

In a nutshell

□ 30,7M€, 3 yrs, 20 partners from academia & innovation



PostGenAI@Paris

DATAIA

ANITI

Hi!PARIS



ENACT

PRAIRIE

Sequoia

Institut 3IA Côte d'Azur

MAI

□ With the following objectives as core values

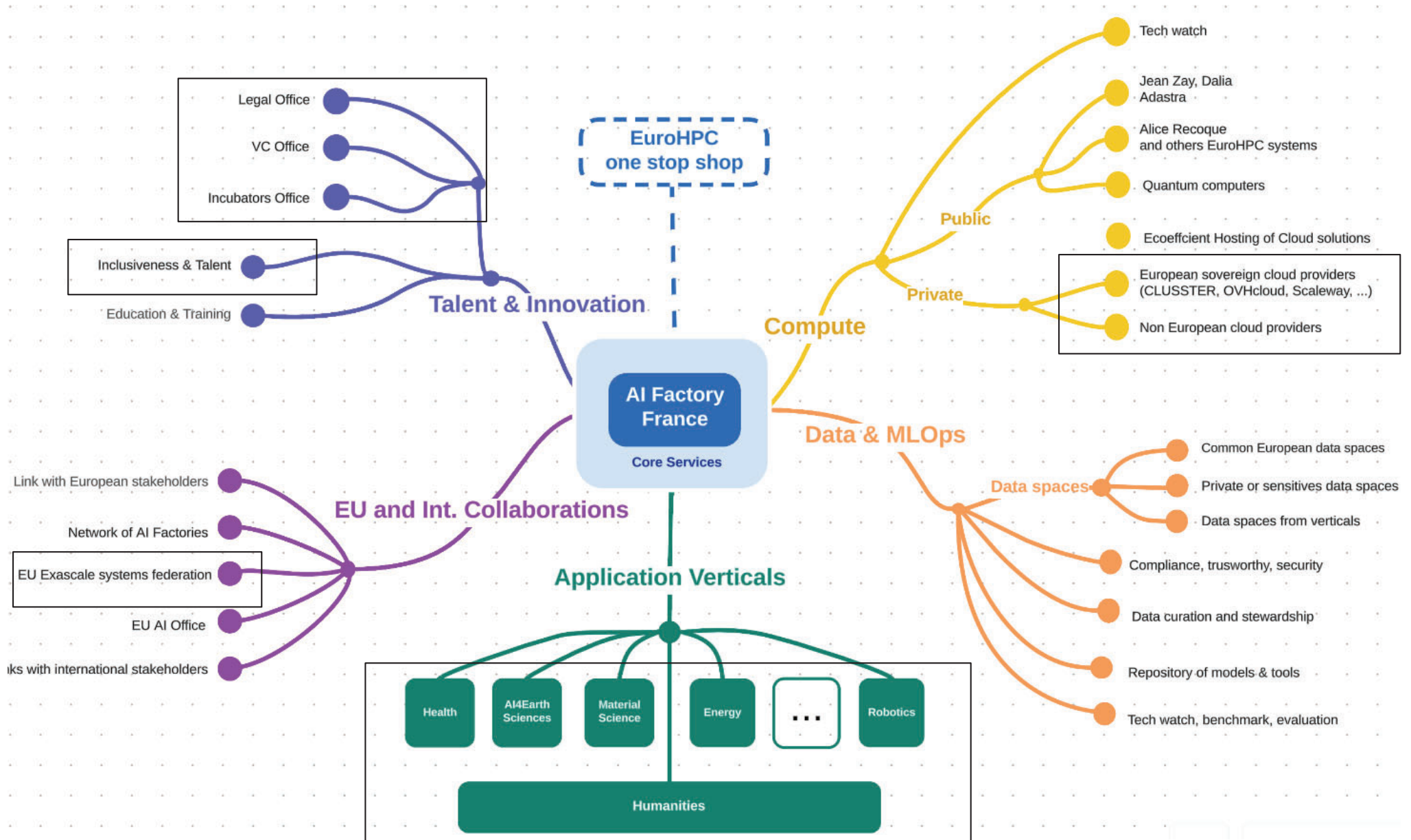
- To provide to the AI community a **one-stop-shop of tailored AI services** through a distributed presence across **all the country and beyond**
- Support and promote **open-source EU foundational models** and intensify efforts in **domain-specific specialisation** for widening the use of AI in industry, science and public services
- Foster a **close collaboration between research and industry**, increasing tech transfer, develop public / private continuum of facilities/services, startup creation as well as to attract and retain skills with **new career paths**
- Invest **massively** in talent detection, education and permanent (re)training
- Serve **the full AI landscape**, GenAI but also ML, Agentic AI, symbolic and explainable AI

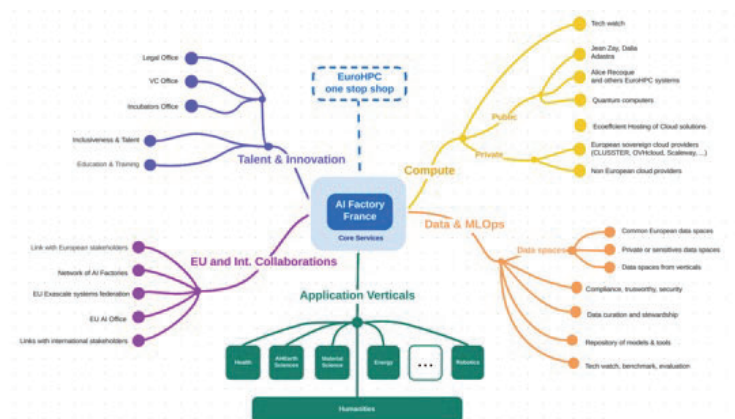
□ More than 40 letters of support including





AI Factory France value proposal





13 Application verticals

Each vertical has several public/ private demonstrators



EuroHPC User Forum

and Coordination Group

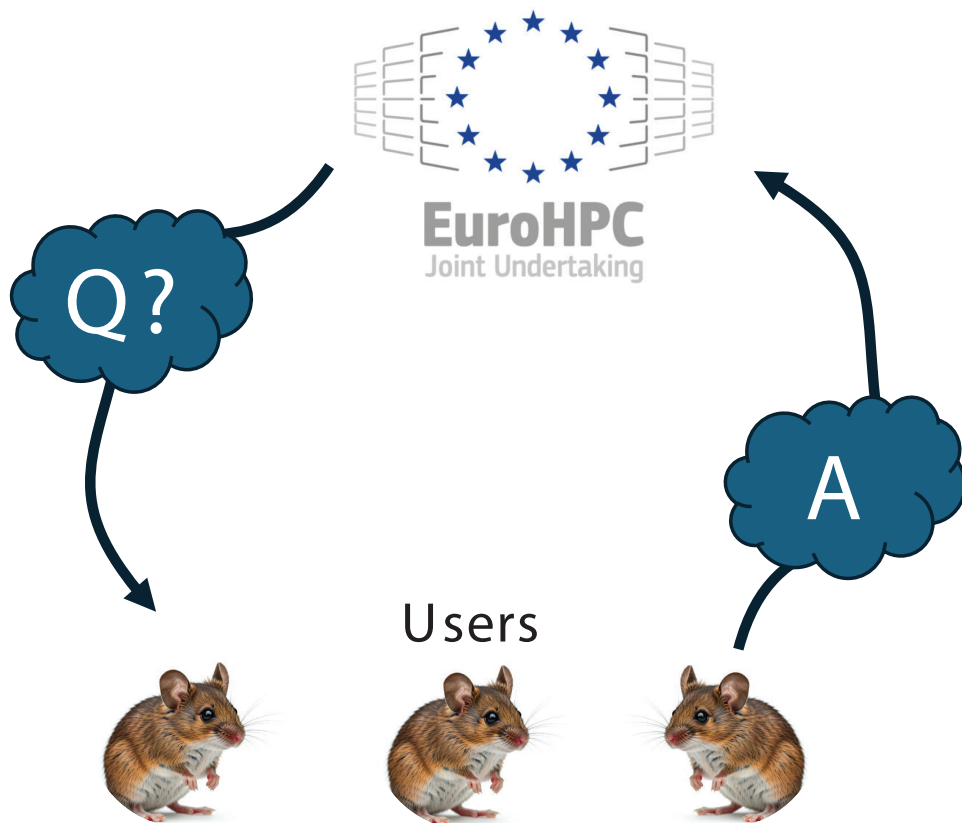
Chris Richardson (cnr12@cam.ac.uk)

October 2025

Purpose



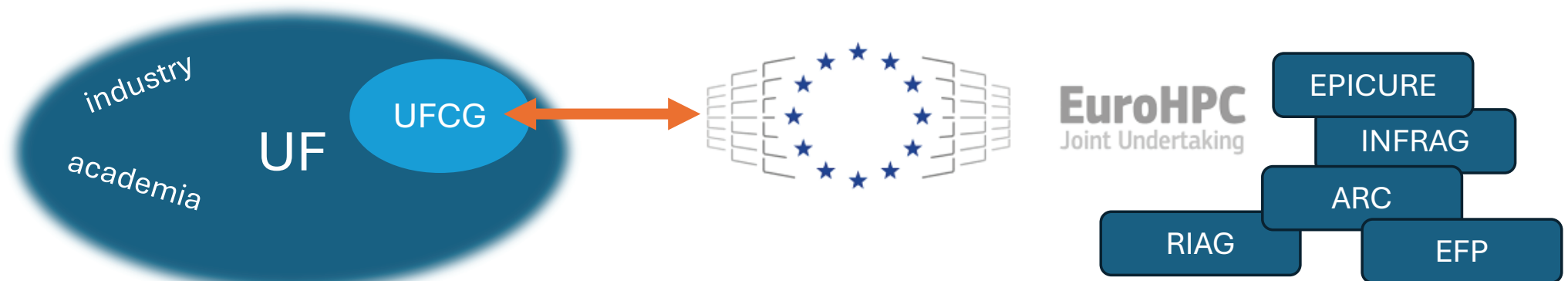
EuroHPC User Forum- aims



- The aim of the User Forum is to foster structured, coherent, and regular **communication and exchange** with all user communities and stakeholders.
- The User Forum facilitates open consultation with user and scientific communities that also serves to highlight the EuroHPC vision.
- The User Forum has administrative support from the JU
- The JU has oversight of the Forum's activities and collates and communicates **feedback on user requirements** to the Advisory Groups of EuroHPC as necessary;
- See the EuroHPC MASP online!

EuroHPC User Forum & *Coordination Group* in practice

- UFCG Monthly meeting on Teams including some EuroHPC staff
- Independent – a group of **Users**
- Limited term – keep fresh with new members
- Slack and discourse channels (see later)
- Two-way communication from users to EuroHPC
- Connection to RIAG/INFRAG/EPICURE
- Provide feedback to documents and reports from EuroHPC JU



Future Activities

- Online webinars with EuroHPC groups (e.g. 1 hour):
 - EPICURE (how to improve your software)
 - ARC (proposal review process)
 - Network infrastructure
 - EFP (federated access to systems)
 - Another topic of your choice... tell us!
- Gauging user opinion: feedback
 - online discussion on slack: ask your question for EuroHPC.
 - adding content to Discourse

Who is in the Coordination Group?



Chris Richardson (chair) Cambridge UK, Physics/Engineering finite element software development



Maria Girone (vice chair) High Energy Physics, CERN, Switzerland, Head of CERN openlab



Andrius Popovas (University of Oslo, Norway) HPC users for computational astrophysics



Ivan Carnimeo (CNR-IOM, Italy): Materials science/Chemistry/Physics developer of Quantum ESPRESSO



Thomas Geenen (ECMWF, Italy, Destination Earth) - Climate and Weather Prediction and Earth System Digital Twin communities



Lara Peeters (VSC - HPC in Flanders, Belgium) - Digital Humanities



Sinéad Ryan (Trinity College Dublin, Ireland) – Lattice Quantum Chromodynamics



Zoe Cournia - Biomolecular simulations and drug discovery Academy of Athens, Greece



Matthias Meinke - Institute of Aerodynamics RWTH Aachen, Germany

Electing new members of UFCG

- “Members of the UFCG should be geographically distributed and cover wide range of disciplines as well as strive for gender balance. They should also represent different types of experience in applications related to HPC, Quantum and AI computing. ”
- Nominations: **put yourself forward**



Join in.



- <https://eurohpc-users.discourse.group/signup>
- Forum discussion
- Archived as a longer-lasting source of information



- Informal “chat” application
- Help to start conversations
- Not a “high security” platform

Code of Conduct (draft)

- **Maintain professionalism in all interactions**—whether in-person at conferences/workshops, related social events, or in virtual and social media spaces.
- **Respect others by avoiding offensive comments or behaviors**, including harassment, intimidation, or exclusionary remarks based on gender identity, sexual orientation, disability, physical appearance, race, nationality, religion, or any other personal characteristic.
- **Engage in constructive scientific discussions** without personal attacks, insults, or belittling remarks. Critical feedback should be professional and focused on ideas rather than individuals.
- **Respect privacy when sharing content**. If recording online talks or posting speaker photos on social media, obtain permission beforehand. Content from presentations may be shared unless the speaker has requested otherwise.

This morning's panel sessions



Governance

Chair: Sinéad Ryan



User Experience

Chair: Thomas Geenen

And later... meet us all at lunchtime (13:00-14:00)