



EuroCC National Competence Centre Sweden



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RISE Research Institutes of Sweden

The Swedish EuroCC Hub for High-Performance Computing

**We help you access and use
CPUs/GPUs on European
Supercomputers for Free**

WHO WE ARE



EuroHPC ecosystem



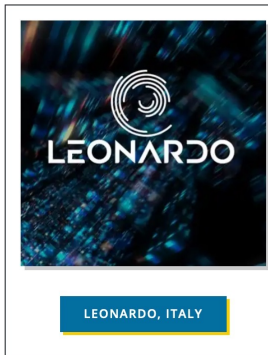
“Develop, deploy, extend and maintain in the EU a world-leading federated, secure and hyper-connected supercomputing, quantum computing, service and data infrastructure ecosystem.”

- **Infrastructure:** Secure, hyper-connected network of supercomputers, quantum computers, and data infrastructures.
- **Federation:** Integrating EuroHPC resources across the EU to provide seamless access
- **Technology:** Creating cutting-edge European hardware components and software stacks
- **Applications:** Supporting the development and optimisation of software applications
- **Usage and Skills:** Investing in education, training, and national competence centres
- **International Cooperation:** Collaborating with global partners
- **AI Factories:** Environments tailored for AI innovation.

EuroHPC systems



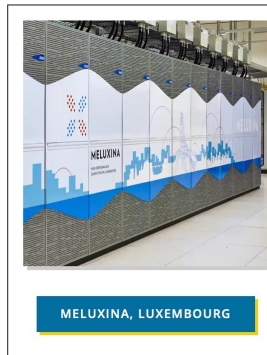
LUMI, FINLAND



LEONARDO, ITALY



MARENOSTRUM 5, SPAIN



MELUXINA, LUXEMBOURG



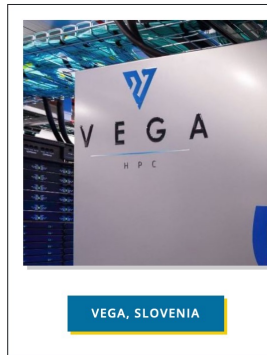
KAROLINA, CZECH REPUBLIC



DISCOVERER, BULGARIA



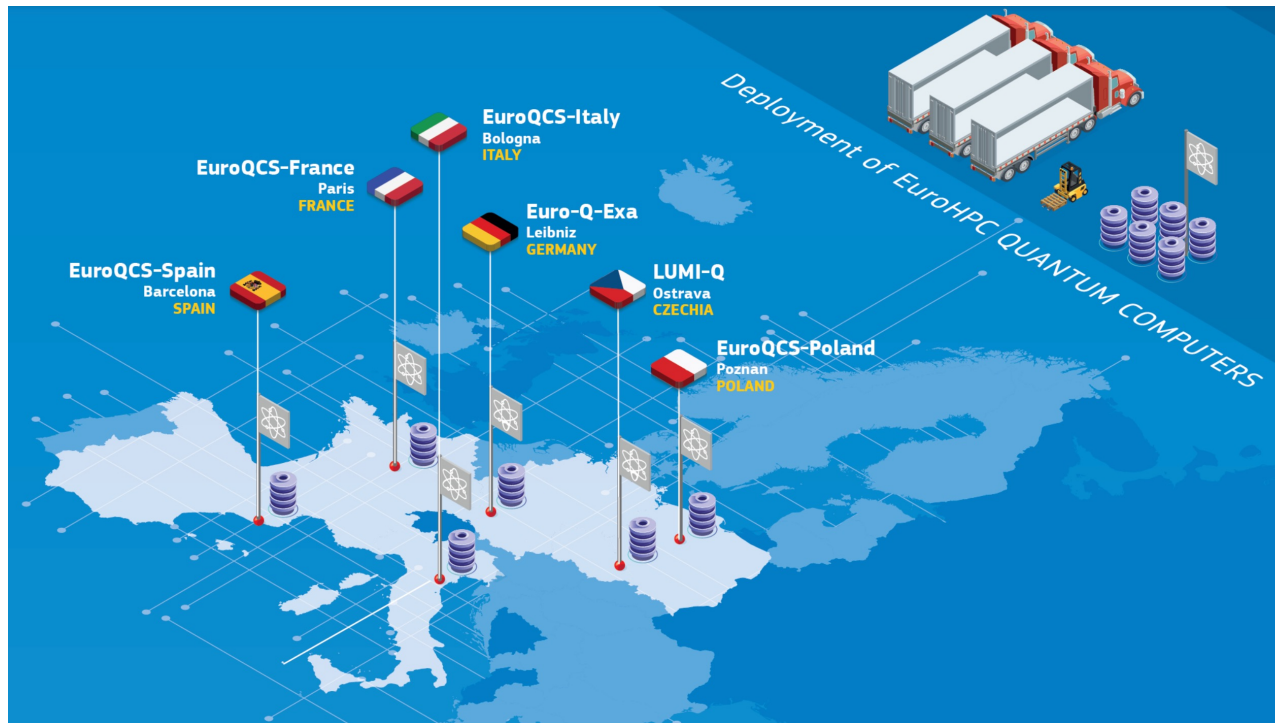
DEUCALION, PORTUGAL



VEGA, SLOVENIA

- Develop and operate a world-class HPC infrastructure in Europe
- Ensure European technological sovereignty by fostering innovation in supercomputing technologies
- Support scientific research & industrial innovation by providing cutting-edge computing resources
- Enhance European competitiveness in AI, big data, and advanced simulations
- **Expand access to HPC for public and private users across Europe.**

EuroHPC quantum computers

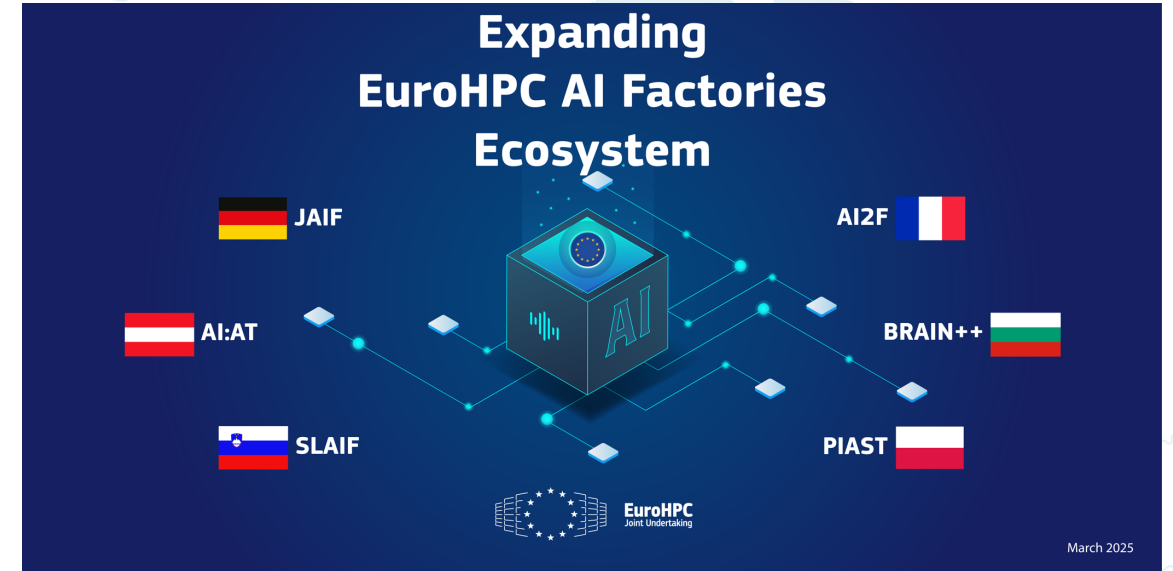


- Diverse quantum technologies and architectures
- Collaboration across 17 European countries to drive innovation and synergies
- Standardisation efforts for key components such as APIs and monitoring software
- Access for researchers across academia, industry, and the public sector
- Quantum-HPC integration
- **Enabling scientific breakthroughs and industrial innovation.**

EuroHPC AI Factories



- Fostering Innovation and Collaboration
- Support Startups and SMEs in using AI
- Cater to Public sector and Academia

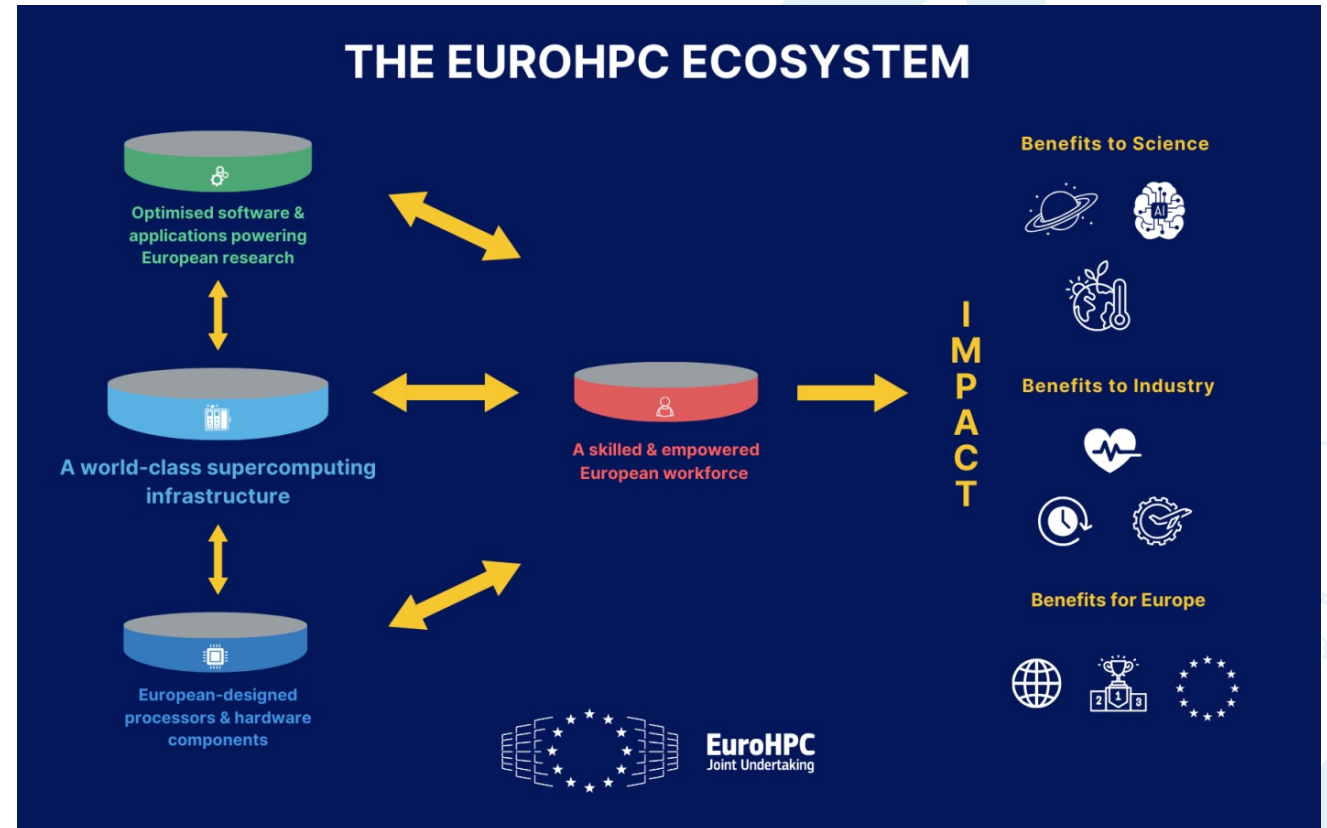


- Enhance AI Capabilities
- Promote Trustworthy AI
- Drive Advancements in Various Sectors

EuroCC National Competence Centres




The EuroCC activity brings together the necessary expertise to set up a **network of National Competence Centres in HPC across Europe** in 33 participating, member and associated states, and to **provide a broad service portfolio tailored to the respective national needs of industry, academia and public administrations.**



Training

24/04/2025
BELGIUM

MIXED




PYTHON SOFTWARE ENGINEERING
Topics covered: Quality of software matters, whether you share it with others or not. Software should be easy to install, easy to use, and well...

READ MORE

10/04/2025
GERMANY

ONLINE




INTRODUCTION TO COOLMUC-4 WITH FOCUS ON CFD AND FEM WORKFLOWS
The focus of this short course is to provide to beginners in High Performance Computing (HPC) and Computational Fluid Dynamics (CFD) a crash course...

READ MORE

10/04/2025
CZECH REPUBLIC

MIXED

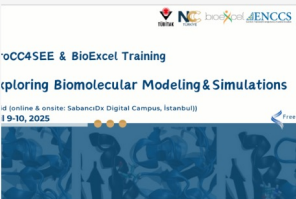


QUANTUM COMPUTING SEMINAR: PROBABILISTIC QUANTUM ERROR CORRECTION CODES WITHIN...
Annotation: The main aim of this talk is to introduce the concept of probabilistic quantum error correction (QEC) codes. During the talk we will show...

READ MORE

09/04/2025
TURKEY

MIXED




EXPLORING BIOMOLECULAR MODELING AND SIMULATIONS
The training consists of four sessions: 1-) Integrative modeling of biomolecular complexes with HADDOCK (lecture + hands-on) 2-) Molecular ...

READ MORE

08/04/2025
SLOVENIA

IN PERSON




MODELING & SIMULATION OF FLUID-STRUCTURE INTERACTIONS ACROSS SCALES
This workshop will bring together experts and researchers to discuss recent advances in hydrodynamics modeling, multiscale coupling methods, AI...

READ MORE

08/04/2025
AUSTRIA

ONLINE



N-WAYS TO GPU PROGRAMMING BOOTCAMP
The N-Ways to GPU Programming Bootcamp covers the basics of GPU programming and provides an overview of different methods for porting scientific...

READ MORE

HPCC^{IN} EUROPE PORTAL

- <https://hpc-portal.eu/all-events-courses>
- Training events on topics HPC, AI, HPDA and QC
 - Webinars, workshops, bootcamps, hackathons, ...
- Public and open source training material
- Offerings from NCCs and CoEs (later QECs & AIFs)



LINKÖPING
UNIVERSITY



EuroHPC
Joint Undertaking



Swedish
Research
Council

VINNOVA
Sweden's Innovation Agency

Proofs of concept

MONTENEGRO SUCCESS STORY

AI/ML Enabled by HPC for Edge Camera Decodes for the Next Generation Farm Farms
 P4K-edgeHPC application experiments

The project in numbers: Aim: This innovative project explores the use of HPC and deep learning AI to create production models that can be deployed on the edge devices (cameras) with camera sensors for the use in IoT/AI solutions in the poultry sector.

No. of partners: 8
 Duration: 18 months
 Start date: May 2021
 End date: August 2022

1 DigitalSmart and Dunavnet
2 AI/ML Enabled by HPC for Edge Camera Decodes
3 P4K-edgeHPC application experiments
4 AI/ML Enabled by HPC for Edge Camera Decodes

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...

[READ MORE](#)

SLOVAKIA SUCCESS STORY

SEMI-SUPERVISED LEARNING IN AERIAL IMAGERY: IMPLEMENTING UNIMATCH WITH FRAME...
 Integrating extracted building data with other geospatial layers enhances the understanding of urban dynamics and spatial relationships. Given the...

[READ MORE](#)

SLOVAKIA SUCCESS STORY

NAMED ENTITY RECOGNITION FOR ADDRESS EXTRACTION IN SPEECH-TO-TEXT...
 Many businesses spend large amounts of resources for communicating with clients. Usually, the goal is to provide clients with information, but...

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BELGIUM SUCCESS STORY

OPTIMIZING INDUSTRIAL PARTICLE PROCESSES THROUGH SIMULATION
 NCC presenting the success storyEuroCC Belgium is Belgium's National Competence Centre (NCC) in the area of high-performance computing (HPC) and high...

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TURKEY SUCCESS STORY

ENABLING HPC USAGE FOR EXPENSIVE ML TASKS ON MANUFACTURING ENVIRONMENTS
 NCC presenting the success story Turkish National e-Science e-Infrastructure (TRUBA), operating under Turkish Academic...

[READ MORE](#)

CYPRUS SUCCESS STORY

MULTIMODAL PREDICTION OF ALEXITHYMIA FROM PHYSIOLOGICAL AND AUDIO SIGNALS
 NCC Presenting the Success StoryThe Cyprus NCC is led and coordinated by the Computation-based Science and Technology Research Center (CaStoRC), at...

[READ MORE](#)

HPCC_{IN} EUROPE PORTAL

- <https://hpc-portal.eu/hpc-services>
- NCCs conduct pilot and PoC projects with partners from industry, academia and public sector
- Success stories focusing on business benefits resulting from the experiments



Funding and software support



FORTISSIMO
PLUS

“Driving SME and startup innovation by unleashing the potential of HPC and generative AI”



“Innovative algorithms for applications on European exascale supercomputers.”



EPICURE

“High-level Specialised Application Support Service in High-Performance Computing”



Performance Optimisation and Productivity

A Centre of Excellence in HPC

“performance optimisation and productivity services for academic AND industrial code(s) in all domains!”



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Council



Sweden's Innovation Agency

Outreach and awareness creation



NEW EPISODE EVERY 2 WEEKS



SUPERCOMPUTING IN EUROPE



SUPERCOMPUTING IN EUROPE



SUPERCOMPUTING IN EUROPE



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EuroHPC
Joint Undertaking



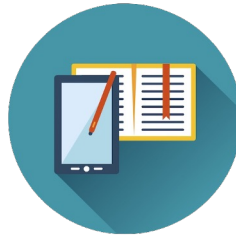
Swedish
Research
Council



Kickstarting AI Factories



HPC access



Training



Consultancy

[NCC-X] empowers [country's] industry, academia and the public sector to leverage HPC, AI, HPDA and QC efficiently and effectively.

Standard Services

- EuroHPC Access and Onboarding
- Training Workshops, Bootcamps, Webinars, Hackathons
- HPC Consulting and PoCs
- Information and outreach events

Additional Services

- HPC Maturity Assessment
- Customised/one-on-one Training
- Funding, Matchmaking, Specialised Services
- Compute Continuum Platform



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Sweden's Innovation Agency

Call to action

- The AI Factories will significantly extend NCC services
- Whether your organisation is just starting with AI or already a power user and developer, there will be something for you
- Get in touch!
 - *AI Factory Sweden - MIMER:* <https://www.mimer-aifactory.eu/>
 - *Email:* info@mimer-aifactory.eu
 - *Social media:* TBA
- We'll be hiring soon!



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Sweden's Innovation Agency

THANK YOU!



The Swedish EuroCC Hub for High-Performance Computing

We help you access and use CPUs/GPUs on European Supercomputers for Free

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