



DRIVING
THE EXASCALE
TRANSITION

"HPC Services for Industry and SMEs. The European perspective on HPC"

Carlo Cavazzoni



- 2017 signature of Rome memorandum
- 2018 Joint Undertaking for EuroHPC established
total budget > 1B€
- 2019 Infrastructure and Research and Innovation calls
European Processor Initiative
- 2020 First petascale and pre-exascale systems installed
Italy will host Leonardo
- 2023 First European exascale system installed
based on European technology

Infrastructure

Research and
Innovation

HPC Ecosystem

■ The Infrastructure Pillar

Procurement of 3 pre-exascale machines and 5 petascale machines

■ The Research and Innovation Pillar

R&I, CoEs, exascale technologies and systems (incl. low-power processor); applications; skills

A world-class European HPC, Big Data and Cloud Ecosystem

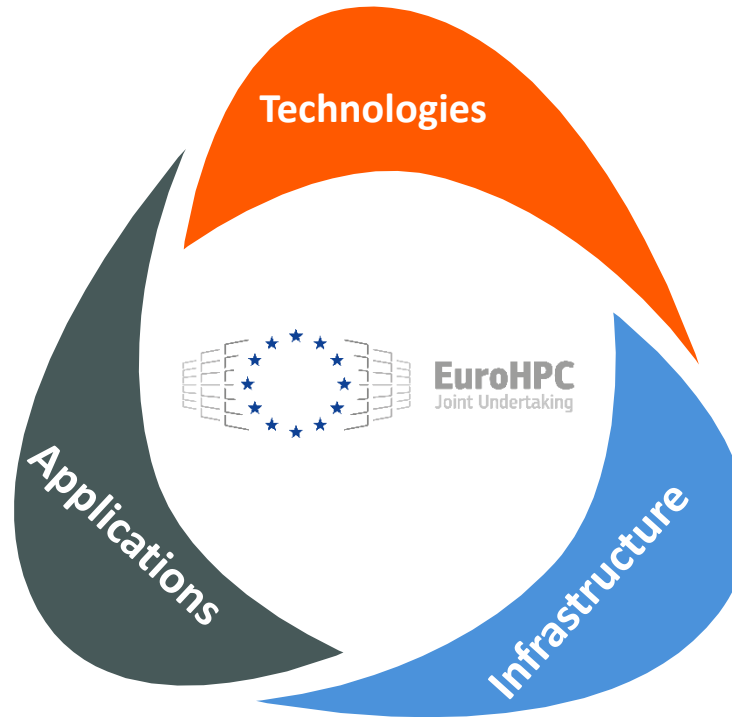
Co-invest on a leading HPC and data infrastructure

for our scientists, industry and the public sector and support the development of technologies and applications across a wide range of fields

- **Coordinate EC/MS activities**
- **Pool public and private resources at EU level**
- **Procure world-class infrastructure**
- **Close the chain from R&D to procurement**
- **Become lead Users**
- **Create a competitive supply industry**
- **Lead in Applications**

The European HPC ecosystem is based on 3 pillars

Excelling in HPC applications, and widening HPC use



Securing our own independent HPC system supply



Acquiring leadership-class supercomputers



ETP4HPC

ETP4HPC – the European Technology Platform (ETP) for High-Performance Computing (HPC) - is a private, industry-led and non-profit association. Our main mission is to promote European HPC research and innovation in order to maximise the economic and societal benefit of HPC for European science, industry and citizens

MISSION: Help foster the growth of HPC technology Research and Development in Europe

- Advise the EC through our participation in the Strategic Research and Innovation Agendas (SRIA) of the EuroHPC JU
- Define multi-annual roadmaps (Strategic Research Agenda – SRA)
- Propose EU Work Programme contents
- Monitor ecosystem development
- Act as the “one voice” of the European HPC industry in relation with the European Commission and national authorities

Our members have diverse profiles, from HPC technology players active in Europe to HPC users: vendors - both large industrial companies and small SMEs, academic HPC research organisations and industrial HPC users. ETP4HPC is open to new members sharing its vision and objectives.

EuroHPC for industry

Up to 20% of CPU time of pre-exascale and petascale to industry

European Competence centres for take-up

- training
- brokering
- consulting

FORTISSIMO

- industrial PoC (in the scope of CoE)
- 100-200K€ per PoC
- 6-12 months
- specialistic support for HPC centre

Calls for projects addressing industrial software

<https://www.etp4hpc.eu/news/216-two-eurohpc-ju-calls-for-proposals-open-for-r.html>

- support in using the CoE software on European HPC system
- consulting in how to optimize HPC systems usage
- troubleshooting
- personalized training
- HPC resources