



EURO

The ecosystems of HPC and Big Data/AI: what they can learn from each other

Luisa MONTI, ABD

Mission:

Set up 33 National Competence Centres (NCCs)

In the fields:

- High-Performance Computing (HPC)
- High-Performance Data Analytics (HPDA)
- Artificial Intelligence (AI)

Participating countries (33)

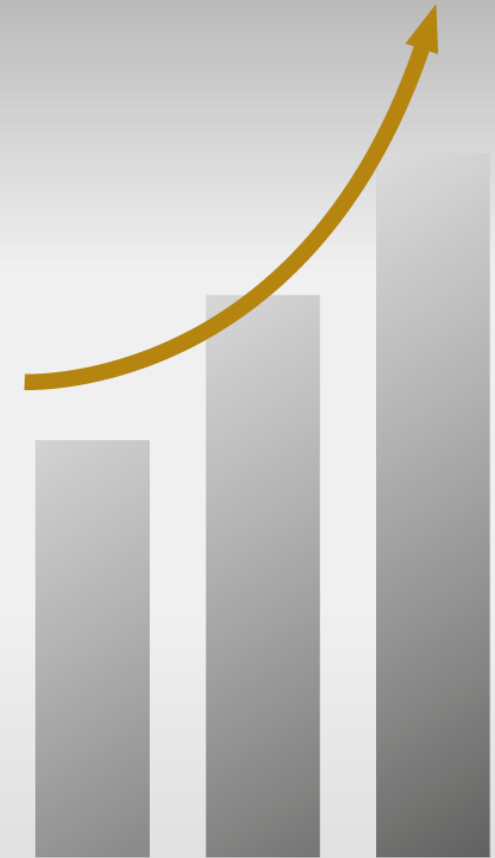
Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

Supported by **CASTIEL** (Coordination and Support Action)



Goals

- provision of a **broad service portfolio** tailored to the needs of industry, academia and public administrations
- **Catalogue and increase national HPC competences**, High-Performance Data Analytics (HPDA) and Artificial Intelligence (AI) capabilities



Methodology

Each National Competence Centre represents a standalone work package (WP X)

WP X

- **Task X.1** (National Competence Centre) - Management)
- **Task X.2** Training and Skills Development
- **Task X.3** Technology Transfer/Business Development
- **Task X.4** Collaboration with Industry
- **Task X.5** Mapping of HPC/Big Data/AI Technical Competences (in the respective state)
- **Task X.6** Facilitation of access to scientific and technical expertise and knowledge pools
- **Task X.7** Awareness Creation and Collaboration

Ambitions

- Establish each NCC as a **single point of contact** towards the world of HPC in the respective states and the EU
- At the end of the projects, all NCCs will **deliver innovative services and show a clear improvement** of their overall structure and handling of users



EuroHPC Joint Undertaking

Luisa MONTI, ABD



The European High Performance Computing Joint Undertaking is a legal and funding entity,

- Legal base – art 187 TFEU
- created in 2018, autonomous from the European Commission since September 2020
- Headquarters: Luxembourg
- Executive Director : Anders Dam Jensen
- Staff: 15 employees

We are pooling the resources of our members to :

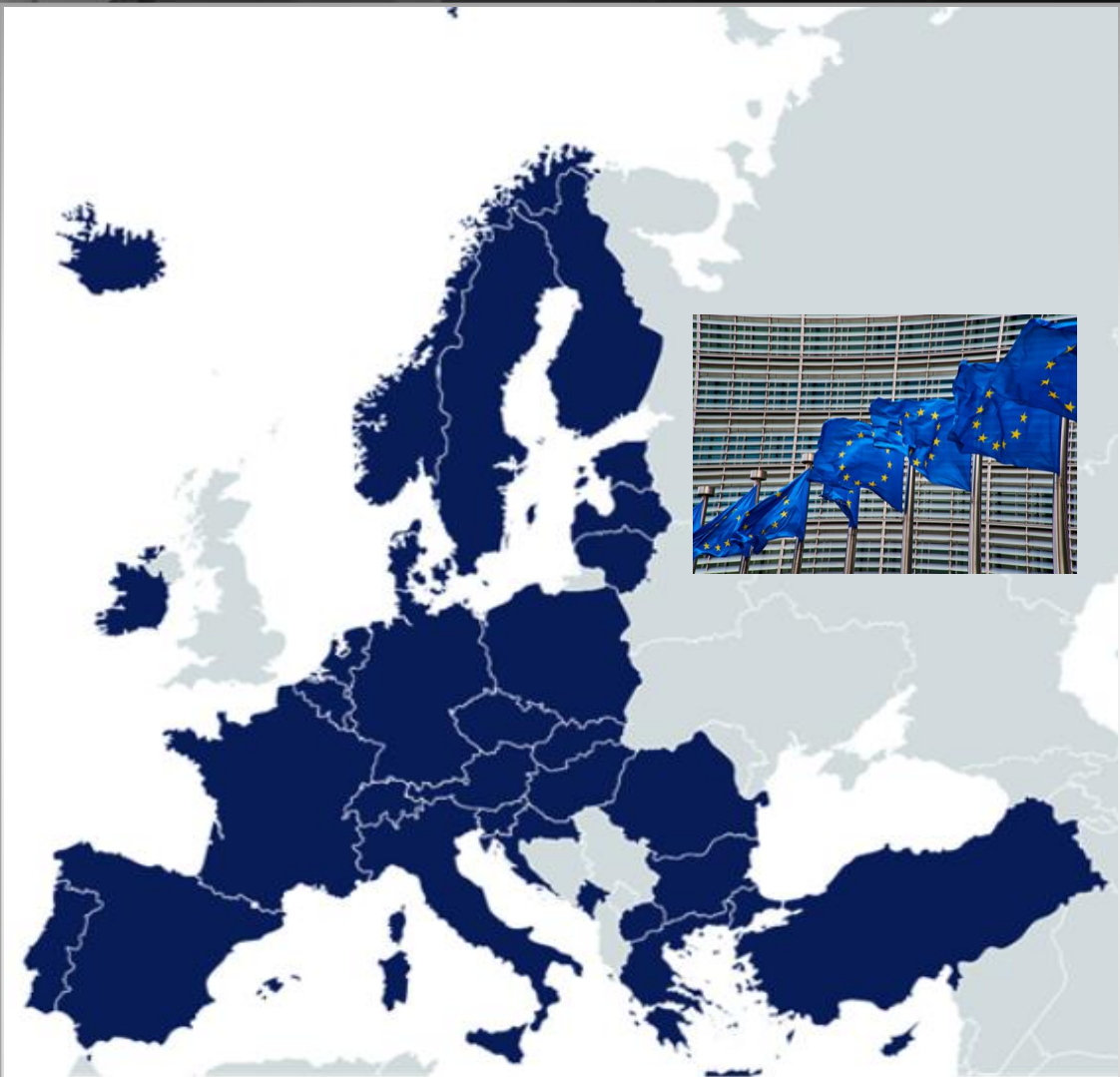
- deploy top-of-the-range supercomputing infrastructures across Europe to support European HPC users wherever they are in Europe,
- implement an ambitious research and innovation agenda to develop a competitive HPC ecosystem and supply chain in Europe, which includes hardware, software, applications but also training and skills.

Who is the EuroHPC JU?



EuroHPC Joint Undertaking

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Our Members

- 32 participating countries
- the European Union
(represented by the European Commission)
- private partners



EuroHPC Joint Undertaking

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The aim: Building a European HPC ecosystem

- Through open & competitive calls for research & innovation grants, the EuroHPC Joint Undertaking is supporting the emergence of a strong HPC ecosystem in Europe, for instance by:
- developing low-power European processors & accelerators technologies to support future exascale supercomputers with a significant European technology footprint,
- building a European network of national Competence Centres to strengthen the European knowledge and expertise in HPC technologies,
- establishing a quality-controlled educational master programme for HPC of pan-European reach.



Mission: Support and Connect the NCCs

Participating countries (5)

Belgium, France, Germany, Italy, Spain

CASTIEL sets the framework of activities that support the evolution of each single National Competence Centre (NCC) and enable them step by step to get closer together in terms of capabilities and expertise.

CASTIEL will take the role of a single and central reference point at the European Level to coordinate and support the National Competence Centres.



Goals

- Provide a European excellence baseline by **closing existing gaps**
- Provide mechanisms for **exchange and support** between the NCCs
- **Support** the NCCs with material and mechanisms



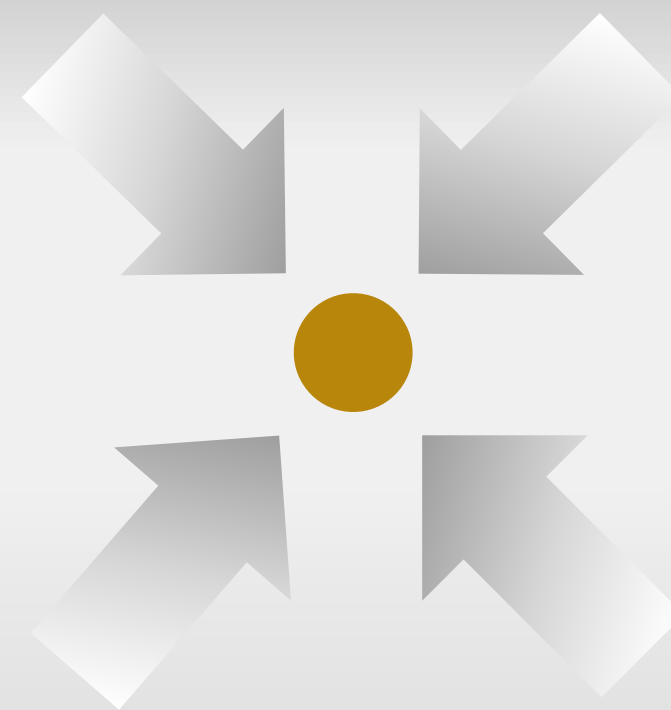
Tasks & Challenges

- High-level management monitoring the evolution of the NCCs
- Help NCCs to set up operation frames, getting access to and making best use of available experiences and expertise on a national level

Challenge: Addressing diversity in maturity of HPC in Europe.

Ambitions

- Becoming a Pan-European **network enabler** of NCCs all over Europe
- **Fostering development** of the participating countries with measures within EuroHPC



Thank you for your attention!

EuroCC: This project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 951732. The JU receives support from the European Union's Horizon 2020 research and innovation programme and Germany, Bulgaria, Austria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Poland, Portugal, Romania, Slovenia, Spain, Sweden, United Kingdom, France, Netherlands, Belgium, Luxembourg, Slovakia, Norway, Switzerland, Turkey, Republic of North Macedonia, Iceland, Montenegro

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CASTIEL WP2: castiel-workpackage2@lists.projects.hlr.de



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