BSC in six out of eight H2020 Centres of Excellence on HPC Applications

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BSC leads one of these centres and participates in five more.

As supercomputers become ever larger and more powerful, HPC application codes need to be developed, optimized and scaled accordingly in order to take full advantage of the hardware. This was the idea behind the EC H2020 call for Centres of Excellence (CoEs) on HPC Applications. Funding for eight centres is currently under negotiation. BSC leads one of the proposed centres and participates in five more. This is a fantastic result and is a testament to the work that the centre has been doing over the past ten years in bringing together computer and computational science under one roof.

If negotiation is successful, Jesus Labarta and Judit Gimenez will lead the centre on Performance

Optimization and Productivity (POP) which will diagnose problems with codes and point to improvements to be made. The other centres under negotiation in which BSC participates are on energy, bimolecular simulation, weather and climate, materials discovery and materials design.

With these results, BSC reinforces its strategic positioning in the EU HPC Ecosystem. The centre already has a prominent role in PRACE as well as the ETP4HPC.

More about the Centres of Excellence (CoE)

The European Commission supports the establishment of Centres of Excellence for HPC applications which have been provisioned in the PPP starting in 2015. The ultimate goal of this approach is the overall competitiveness of the HPC value chain in Europe, to the benefit of all applications of numerical simulation - scientific, industrial, societal - for which HPC is a tool, an essential approach and a potential source of direct or indirect jobs and innovations

Establishing a limited number of Centres of Excellence (CoE) is necessary to ensure EU competitiveness in the application of HPC for addressing scientific, industrial or societal challenges. CoEs will be user-focused, develop a culture of excellence, both scientific and industrial, placing computational science and the harnessing of 'big data' at the centre of scientific discovery and industrial competitiveness. CoEs may be 'thematic', addressing specific application domains such as medicine, life science or energy; 'transversal' on computational science (e.g. algorithms, analytics, numerical methods etc.); or 'challenge-driven', addressing societal or industrial challenges (e.g. ageing, climate change, clean transport etc.); or a combination of these types.

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