

BSC and CEA will coordinate efforts to reinforce European HPC research and technology innovation

Barcelona Supercomputing Center (BSC) and French Alternative Energies and Atomic Energy Commission (CEA) will coordinate themselves to develop High Performance Computing (HPC) research and technology innovation. Both organizations have signed an agreement to help promoting “a globally competitive HPC value chain and flagship industry”, echoing the European Union strategy in the domain.

These common objectives will be fulfilled by carrying out different activities. This includes definition of joint R&D programs and mobilization of their capabilities to develop relevant technology. BSC and CEA plan to drive innovation, both in collaboration with companies and through the creation of spin-offs from their R&D centers.

One of the first actions arising from this agreement will be considering the use of European Commission’s instruments such as PPIs (Public Procurement of Innovative Solutions) to deploy new HPC systems for the European scientific community.

BSC and CEA have a strong presence all along the HPC value chain and across the EU HPC strategy 3 pillars, namely, Independent access to technology, supporting world-class infrastructures and developing HPC applications. Indeed, both partners design and operate world-class computing infrastructures and systems including the Partnership for Advanced Computing in Europe (PRACE) tier-0 supercomputers, are founding members of the European Technology Platform for High Performance Computing (ETP4HPC) and collaborate in many European funded research projects and Centers of Excellence. This agreement is a step further towards still better coordination.

Press contact:

BSC: communication@bsc.es / Tel: +34 620 429 956 (Gemma Ribas)

CEA: nicolas.tilly@cea.fr / Tel: +33 (0)1 64 50 17 16

About BSC - Barcelona Supercomputing Centre

BSC (Barcelona Supercomputing Center) is the National Supercomputing Facility in Spain, with a total staff of over 400 R&D experts and professionals. The mission of BSC is to investigate, develop and manage information technology in order to facilitate scientific progress, with special dedication to Computer Sciences, Life Sciences, Earth Sciences and Computational Applications in Science and Engineering.

BSC is at the service of the international scientific community and industry that requires High Performance Computing resources, hence BSC is a hosting member of the PRACE (Partnership for Advanced Computing in Europe) initiative, managing MareNostrum, a 1.1 petaflop/s supercomputer, located at the Torre Girona chapel.

Many of BSC-CNS's research lines are developed within the framework of European programs, and the center also does basic and applied research in collaboration with leading companies such as IBM, Microsoft, Intel, Nvidia, Repsol and Iberdrola. The Spanish government has recognized the quality of BSC's research with the Severo Ochoa Excellence Center grant for cutting edge Spanish Science.

About CEA - Commissariat à l'énergie atomique et aux énergies alternatives

The French Alternative Energies and Atomic Energy Commission is a public body established in October 1945 by General de Gaulle. A leader in research, development and innovation, the CEA is active in four main areas: low-carbon energies, defence and security, information technologies and health technologies.

CEA is a major player all along the value chain of HPC from R&D to usages of numerical simulation in many different areas, corresponding to the missions of CEA in the development of low carbon energies, technologies for health, information technology, defense and global security, and underlying fundamental research for all these objectives. These missions imply large horizontal programs in the three pillars of the value chain:

- technological R&D: CEA is involved in the development of silicon technology, architecture of processors; system integration and software environments and tools for supercomputing. In September 2014, the French government asked CEA, in the context of the national Programme Investissement d'Avenir, to "mobilize its expertise to set up a R&D program in order to develop, by 2020, the capacity to design and produce high performance computers in a sustainable and competitive way".
- infrastructures: CEA owns and operates two world-class computing infrastructures (TERA and TGCC), and deploys related HPC services, for the benefit of national and European research, industry and defense. The TGCC infrastructure is one of the three national infrastructures funded through GENCI and hosts the 2 petaflops/s supercomputer CURIE, which is the French tier-0 for PRACE.
- usages and applications: CEA is a shareholder of the "Maison de la Simulation" set-up together with CNRS, INRIA, Paris-Sud University and Versailles-Saint-Quentin University to promote the efficient use of the large HPC equipment by the scientific community and recently awarded a "Center of Excellence" project by the European commission; CEA is the founder of the CCRT, a national center of competence to optimize applications for the best possible usage of massively parallel machines, and access to HPC for industry, developed now for more than 10 years, through an original partnership business model and a dedicated supercomputer - 0.5 petaflop/s as of beginning of 2015.