

Inici > BSC promotes European research mobility and leads container technologies

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Barcelona Supercomputing Center (BSC) is participating in the third edition of the mobility programme <u>HPC-Europa3</u>. The aim of the programme is to maintain the persistency of a high-quality service of transnational access to the most advanced HPC infrastructures in Europe for the European research science community.

BSC plans to receive 210 visitors in four years (around 52 visitors per year), providing CPU hours on the supercomputer MareNostrum. The visitors will be hosted by research groups at BSC, at centres which form part of the Spanish Supercomputing Network (RES) or at other Spanish research institutions. BSC will welcome the first visitors in December 2017.

The project is based on a programme of visits, in the form of traditional transnational access, with researchers visiting HPC centres and/or scientific hosts who will mentor them scientifically and technically on how to best exploit HPC resources in their research. The visitors will receive funding for travel, accommodation and subsistence, and will be provided with an amount of computing time suitable for the approved project.

"We are glad to be taking part once again in HPC-Europa; now in its third edition, BSC has been welcoming visitors through this programme since its inception. This initiative is key to promoting the exchange of HPC knowledge and expertise in Europe," says Sergi Girona, BSC Operations Director and BSC Principal Investigator for the HPC-Europa3 project.

BSC Computer Science researchers will lead the research activity dedicated to container-as-a-service for HPC within the project. Its objective is to evaluate container technologies (e.g. <u>Docker</u>, <u>Singularity</u>, <u>Shifter</u>, etc.) for supercomputers and HPC environments. This will provide a flexible framework to execute portable,

user-customized, scientific applications to a number of HPC facilities while maintaining their performance. BSC researchers have previous experience in container technologies as proven by their involvement in projects dedicated to this topic, such as <u>EUBRA-BIGSEA</u>, and in their close collaboration with leading IT companies.



About the HPC-Europa 3 project

The objectives of HPC-Europa 3 will be:

- Provide access to eight European HPC centres (with a target of 1,220 visits), via a single application and an international peer-review process, free of charge and with minimal administrative overhead;
- Provide mentoring in the usage of the most advanced HPC facilities;
- Facilitate new scientific collaboration to be formed within an extremely wide network of scientific host labs in all the computational science domains;
- Increase awareness of the benefits in the use of HPC towards SMEs;
- Increase synergy and collaboration with other HPC initiatives;
- Identify a long-term sustainability roadmap to facilitate future access to HPC resources.
- Make a significant advance in research about container technologies for supercomputers

More information on page http://www.hpc-europa.org/.

Nota en castellano (pdf)

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