

### 3. PRACE - Partnership for Advanced Computing in Europe

#### MUNICIPALITY

Barcelona

#### HEADING

As part of the PRACE project, the BSC-CNS has installed one of the most powerful supercomputers in the world in Barcelona.

#### IDENTIFYING DETAILS

- Term of execution: 5-year project in its initial phase, but with unlimited continuity
- Investment budget: global budget of €500 M up to 2015
- Personnel employed: over 100 people in 25 countries

#### PROJECT DESCRIPTION

The aim of the PRACE project is to equip Europe with the best and most powerful supercomputing systems that make possible ground-breaking scientific projects and encourage industrial competitiveness. PRACE gives support to the deployment of four nodes which house tier-0 supercomputers. Spain is one of these nodes, along with another three European countries: France, Italy and Germany. PRACE is gradually deploying the best supercomputers in the world at its nodes. The association has a total of twenty-five European countries as members.

The BSC-CNS is the institution which represents Spain in PRACE. Since its foundation, it has been a cutting-edge centre in HPC technology, and houses one of the most powerful supercomputers in the world, [MareNostrum](#). The location of a new tier-0 supercomputer in Barcelona will prove an undeniable pole of attraction for top researchers, enhance the city's image as a technological capital, attract innovative research projects, and encourage the creation of related companies.

2010 saw PRACE Petaflops machines being deployed in Germany, France and Italy, coordination of the assignment of resources generated by those machines to higher-value scientific projects. It also saw the consolidation of their governing bodies and progress in adapting applications to Petaflop systems. In 2012 installation began of the Spanish Petaflop machine at BSC, as the first phase of the eventual Spanish machine, with installation completed in 2013.

Currently the consolidation is continuing of the project's infrastructure and extending its user base, helping to make Europe more competitive.

#### PROJECT ADDRESS

[www.prace-ri.eu](http://www.prace-ri.eu) and [www.bsc.es](http://www.bsc.es)

#### RESPONSIBLE

Francesc Subirada, Associate Director, Barcelona Supercomputing Center