

### **3. Partnership for Advanced Computing in Europe (PRACE)**

#### **MUNICIPALITY**

Barcelona

#### **HEADING**

The Barcelona Supercomputing Center (BSC) has installed in Barcelona one of the most powerful supercomputers in the world as part of the PRACE project.

#### **ECONOMIC AND TECHNICAL DETAILS**

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

#### **PROJECT DESCRIPTION**

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

The BSC is the institution that represents Spain at PRACE, due to always being a cutting-edge centre in HPC technology and as home to one of the most powerful supercomputers in the world: MareNostrum. The location of a new tier-0 supercomputer in Barcelona will prove an undeniable 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 these machines to scientific projects of the highest value, consolidation of their governing bodies, and progress in adapting applications to Petaflop systems.

In 2012, the Spanish Petaflop machine was installed in the BSC, as the first phase of the eventual Spanish machine.

In 2013 the new Spanish machine, MareNostrum, will start operations. Apart from this, consolidation will continue of the infrastructure and extension of its user base, helping to make Europe more competitive.

#### **PROJECT ADDRESS**

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

[www.bsc.es](http://www.bsc.es)

#### **RESPONSIBLE**

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