



**Barcelona
Supercomputing
Center**
Centro Nacional de Supercomputación



**EXCELENCIA
SEVERO
OCHOA**

BSC Infrastructure and Services

Oriol Pineda

Infrastructure Access Policy

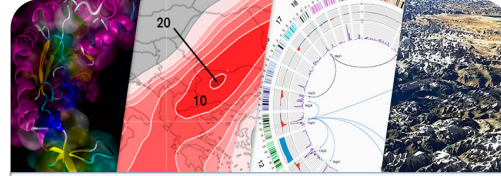
Einstein Telescope Spain meeting

8 October 2021

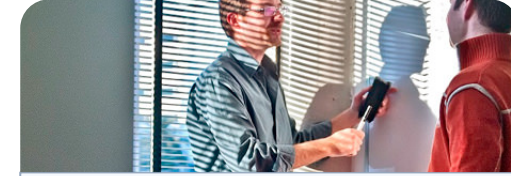
Barcelona Supercomputing Center – Centro Nacional de Supercomputación



Supercomputing services
to Spanish and
EU researchers



R&D in Computer,
Life, Earth and
Engineering Sciences



PhD programme,
technology transfer,
public engagement

BSC-CNS is
a consortium
that includes

Spanish Government

60%



Catalan Government

30%



Univ. Politècnica de Catalunya (UPC)

10%



MareNostrum4

Total peak performance: 13,7 Pflops/s

Includes

- Large, general-purpose Intel partition - 11,5PB
- AMD-based high-memory (1TB) cluster
- Power9+Nvidia V100 cluster
- ARM-based Fujitsu cluster

Other infrastructures

Agora

- HSM storage (disc/tape)
- 135 PB
- Heavy-duty VMs

Openstack cluster

- Flexible nodes to deploy VMs and cloud environments

Competitive Access to BSC infrastructures

- Red Española de Supercomputación (up to 50%)
 - Competitive calls for HPC and Data Management services, peer reviewed
 - Up to 30M core hours per year
 - From 200TB per year
 - PRACE (50%)
 - Competitive calls for large-scale HPC projects, peer reviewed
 - From 30M core hours per year
- Strategic projects
 - Dedicated allocations, after scientific assessment
 - Up to 10% of total annual capacity

Spanish Strategic Projects

- Requirements:
 - Medium- to long-term needs of large-scale access to HPC and Data Management services
 - Endorsement by BSC Board of Trustees
 - Positive scientific assessment
- Capacities:
 - Up to 10% of the total competitive resources
 - Currently 96Mh CPU per year and 1PB of HSM storage
- Current projects
 - GAIA
 - LHC
 - EGA
 - ...



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Thank you

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