

CENTRE DE SUPERCOMPUTACIÓ
DE CATALUNYA



Supercomputing Center of Catalonia (CESCA)

Ingrid Bàrcena

HPC and Storage services manager

II Jornadas Ibéricas de Supercomputação

Braga, 27 de mayo de 2010



RECERCAT



JOCS

TAC



TERAFLOP

1. ¿What is CESCA?
2. CESCA services
3. Last year news
4. Access Policy

Centre de Supercomputació de Catalunya



- ✓ Public Consortium created in 1991
- ✓ ICTS since 2000

✓ Patrons:

- Generalitat de Catalunya
- Fundació Catalana per a la Recerca i la Innovació
- Universitat de Barcelona
- Universitat Autònoma de Barcelona
- Universitat Politècnica de Catalunya
- Universitat Pompeu Fabra
- Universitat de Girona
- Universitat Rovira i Virgili
- Universitat de Lleida
- Universitat Oberta de Catalunya
- Universitat Ramon Llull
- Consell Superior d'Investigacions Científiques



Our Services



Computing and Storage	Communications	Portals and Repositories	Promotion
<p>HPC </p> <p>SED </p> <p>SDF </p> <p>AUC </p>	<p></p> <p></p> <p></p>	<p> </p> <p> </p> <p> </p> <p> </p>	<p></p> <p></p> <p></p> <p></p>

Operations and Security



Computing and Storage



HPC Service



5,45 Tflop/s Peak performance

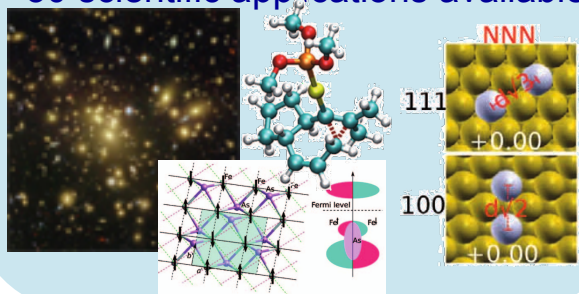
57 research projects (191 users)

Main areas:

- Materials Science (34%)
- Life Science (31%)
- Environmental Science (25%)
- Astronomy and Astrophysics (5%)

+ 2M HC used during 2009

+ 30 scientific applications available



Storage Service



Disk Library

NetApp FAS3170

150 TB

21 TB FC drives

126 TB SATA drives

Tape Library

ADIC i2000

156 TB

4 LTO-4 drives

300 slots

NetBackup 5.1



5 Pharma Labs

9 Academic research groups



2 Software Packages

SCHRÖDINGER



Communications



+80 connected institutions

2 core nodes at 10 Gbps

Flexible bandwidth

Services: IPv6, multimedia, Remlot
Access Service, Voice over IP,
Eduroam, Security...



1. Els diferents participants durant

3. El Dr. Lacy fent la seva intervenció



17 institutions in Catalonia
40 countries



22 ISP and operators



Services: *Multicast*, IPv6, NTP
Server, F root server (A and
J, .com and .net coming soon)...

Portals and Repositories



Since 2001



20 institutions

8.305 Doctorals Tesis

+ 22.000 on the global search

www.tdx.cat

Since 2005



17 institutions

195 colleccions

19.340 research docs

www.recercat.cat

Since 2006



257 journals

95.137 articles

54 editor institutions

www.raco.cat

Since 2006



10.508 sites

14.061 crawls

143M files in 6,3 TB

www.padi.cat

Since 2006



21 institutions

78 journals

<http://recyt.fecyt.es>

Since 2009



10 institutions

800 learning objects

www.mdx.cat

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Call for tenders details

- ✓ 1.2 M € + x m € 2 years maintenance
- ✓ Published: May, 5th
- ✓ Closing date: June, 14th
- ✓ Awarded: by the end of July
- ✓ Available: by the end of November

Funded by:

Generalitat de Catalunya
MICINN (ICTS)

System details

- ✓ SMPs or SMPs cluster (min. 32 cores x node)
- ✓ 64 bits processors (preferably x86)
- ✓ Minimum 10 TFlop/s R_{peak}
- ✓ Min. 4 GB RAM/core (20% of the system 6GB/core)
- ✓ Minimum 1 node with 1 TB RAM
- ✓ 50 TB disk

The e-universitat project



Agreement to promote the development of e-Governance in the Catalan Public Universities



Generalitat de Catalunya
**Departament d'Innovació,
Universitats i Empresa**



Consorci
**Administració Oberta
de Catalunya**

Signed the 9th of September of 2009. DIUE contribution, 5.2 M€

University e-Governance Projects



e-Registre



URV and test:

- Test: Dec'09
- Production: Jun'10
- Instal. Sadiel: 14,976.24 €

e-Vot




- Bid price: 405,000 €
- Awarded (03-18):
Scytl, 400,200 €
- Production: Nov'10

e-Arxiu



Waiting for iArxiu to be released

SCD (e-Identitat i e-Signatura)

- Available: 
EC-UR i EC-URV
ER-CESCA, ER-URV
i ER-UPC
- In development: ER-UdL, ER-UPF, ER-UB, ER-UAB

e-Logs



Feasibility study of a common platform
Awarded (11-3): 20,861.38 €
Ended (04-22)

e-Contractació



Feasibility study of a common platform
Awarded (11-3): 26,490.00 €
Finalitzat (05-15)

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Consortium Members

Yearly call

Calendar year Projects

Applications:

- University Vice-rectorate of Research
- Institutional coordinator

3 groups of projects

- Small (< 15,000 HC)
- Medium (< 30,000 HC)
- Large (> 30,000 HC)

External users

Yearly call

MICINN ICTS access grant

Access Committee

- ECAS (2 members of CESCA staff + 4 scientific experts)
- 1 MICINN representative

Main criteria:

- Project's scientific quality
- Applicant CV
- Proposal feasibility
- Resources Needed

Commercial Projects

Individual Agreements

- Service description
- SLAs
- Confidentiality

CENTRE DE SUPERCOMPUTACIÓ
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¡Gracias por su atención!

¿Preguntas?

ibarcena@cesca.cat

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