

LCG-France Project Status

Fabio Hernandez
Frédérique Chollet
Fairouz Malek

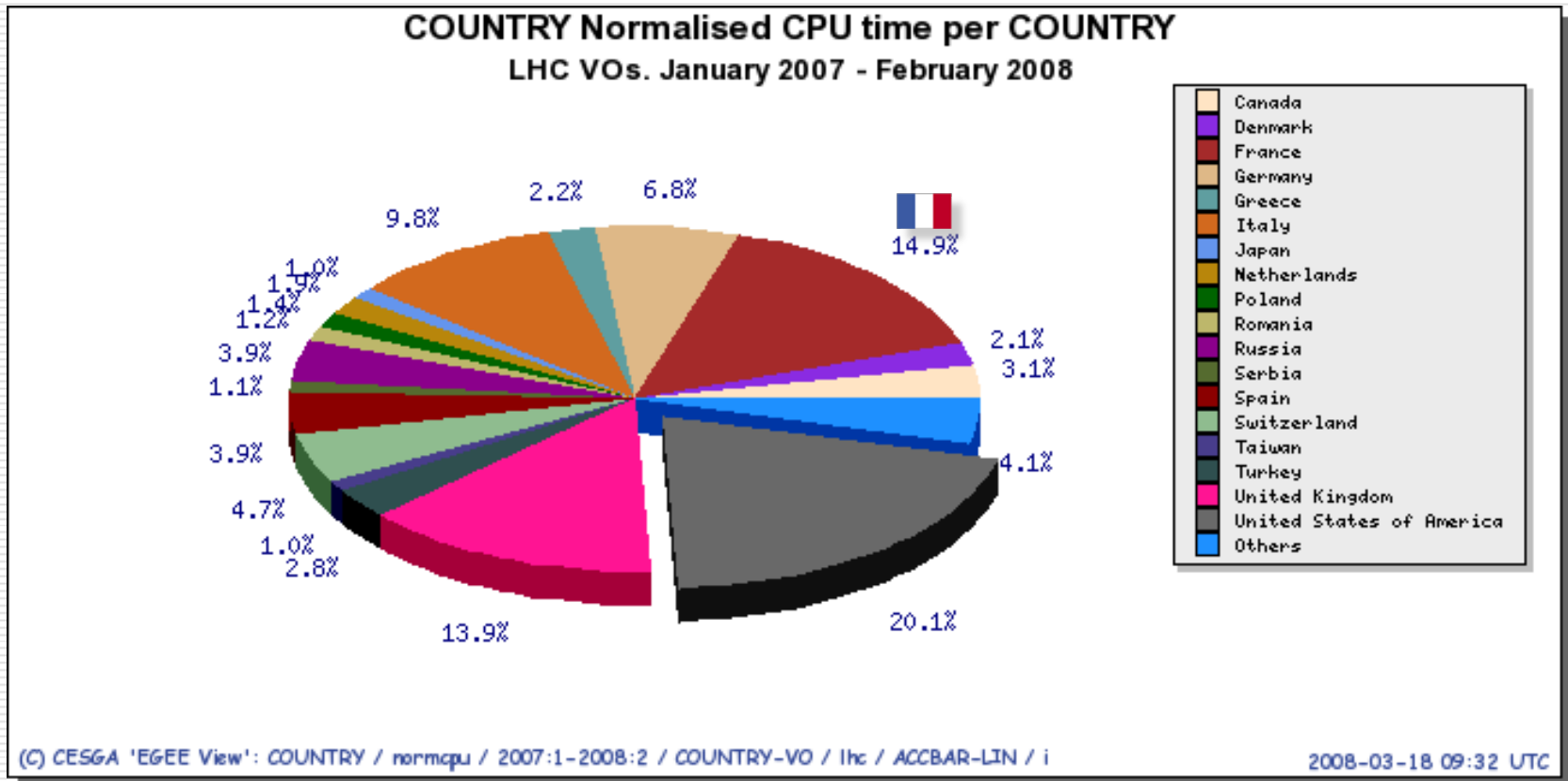
Réunion LCG-France Tier-2s & Tier-3s
Paris, March 20th 2008



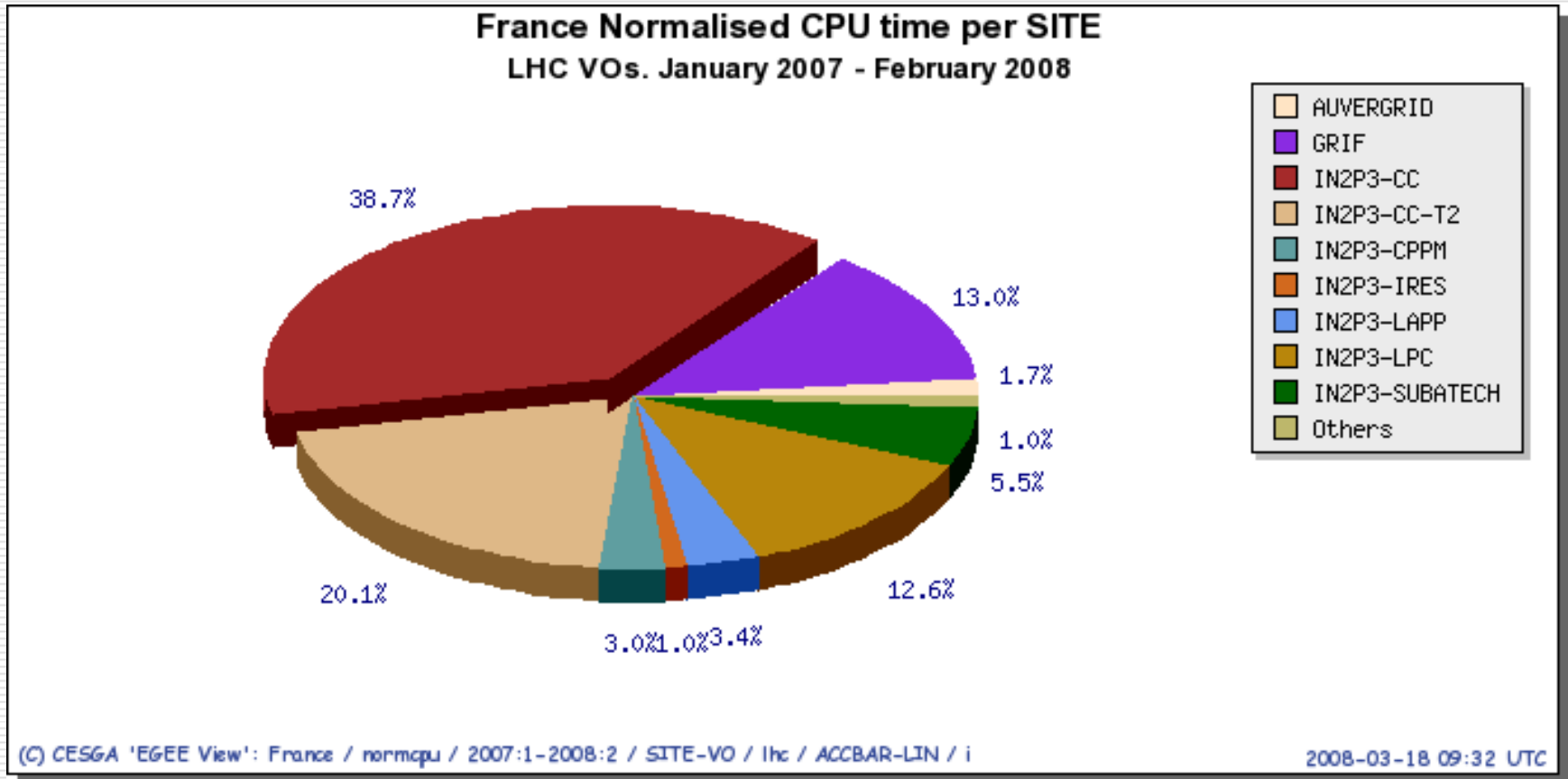
Contents

- LCG-France contribution to WLCG
- Achievements over the last year
- Next steps
- Conclusions
- Questions

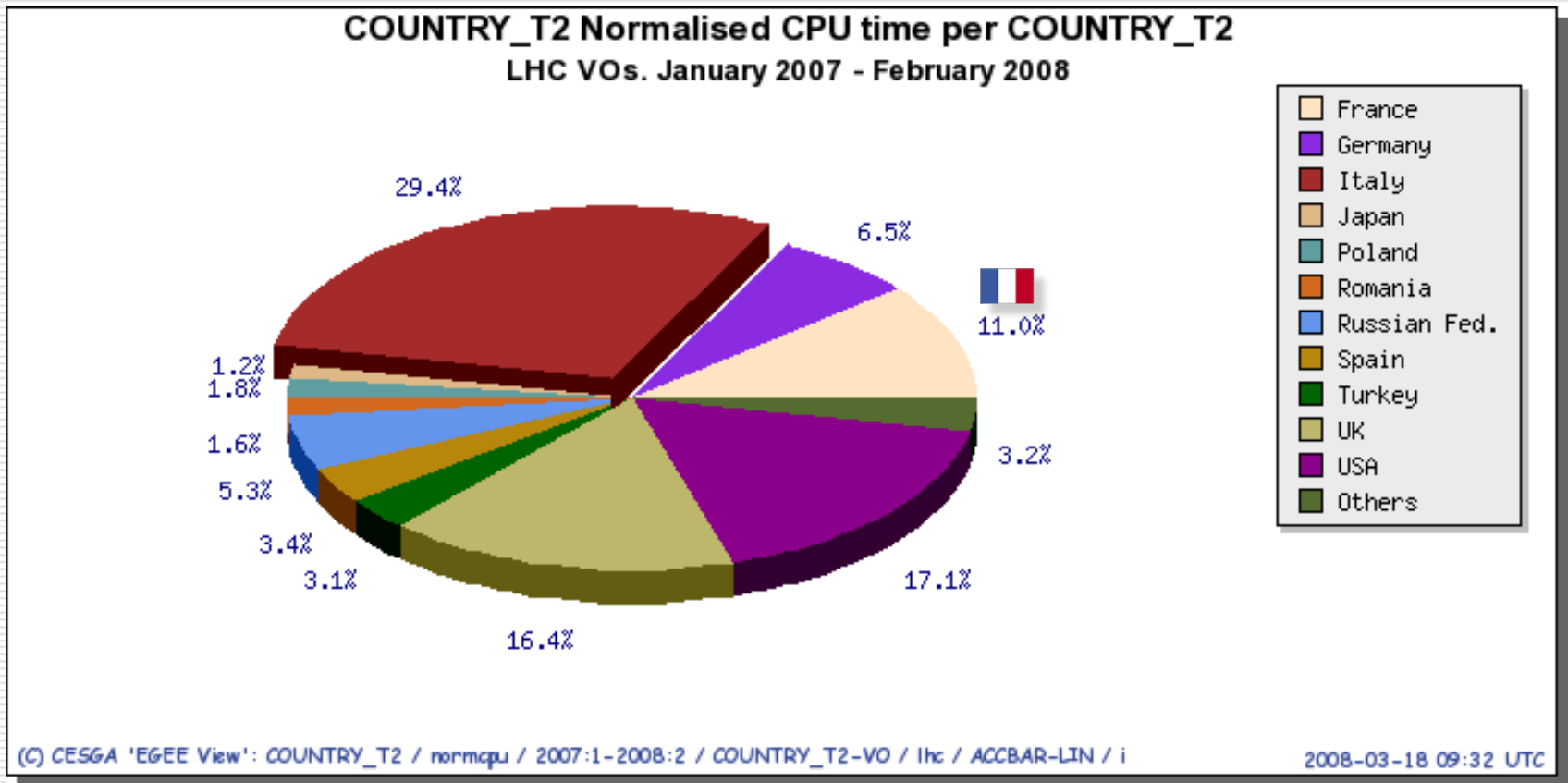
Actual contribution: CPU All sites



Actual contribution: CPU AI sites (cont.)

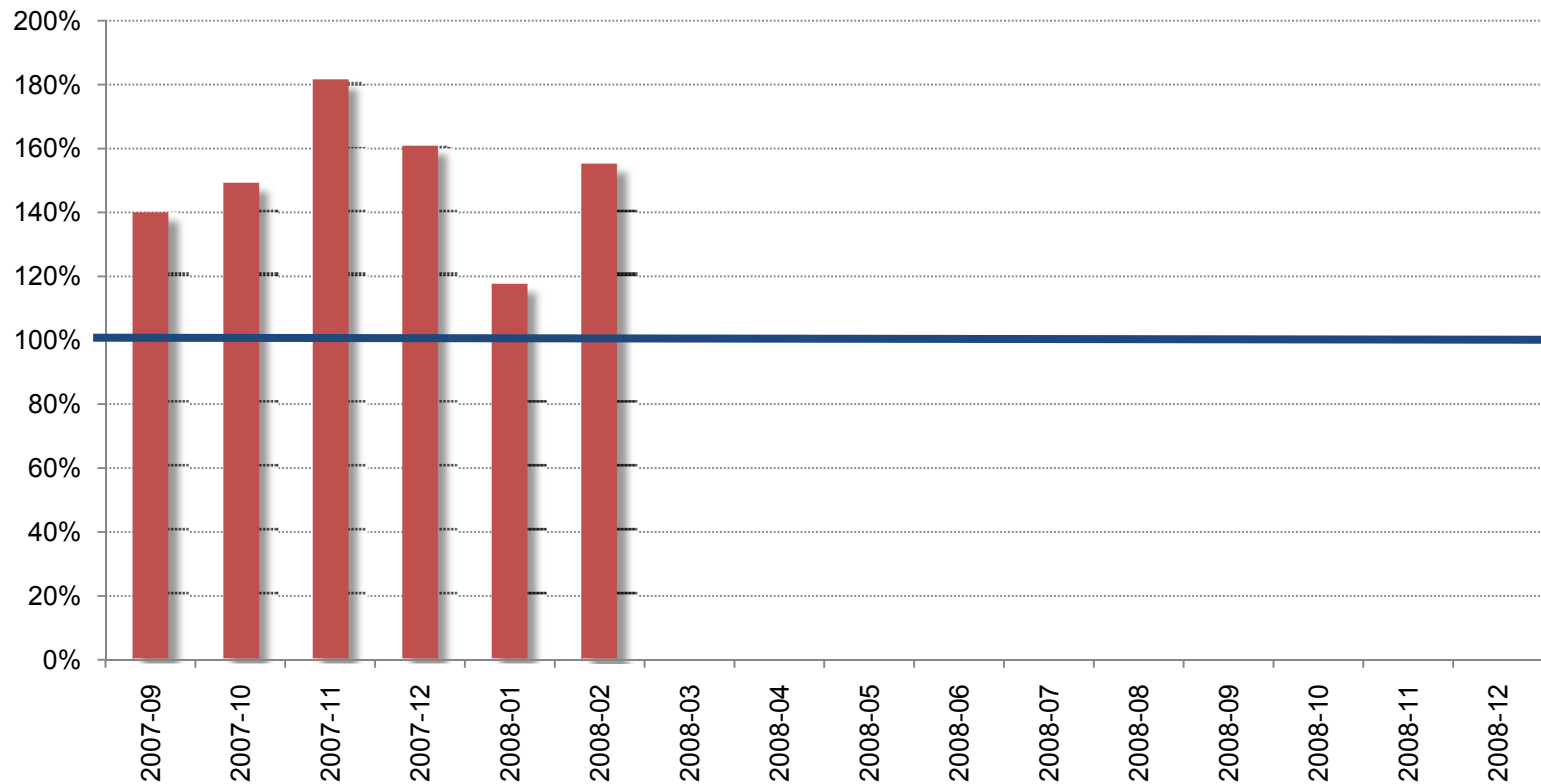


Actual contribution CPU Tier-2s



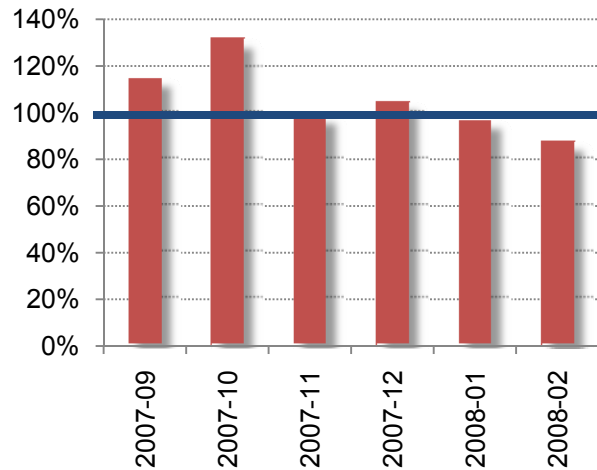
Actual contribution: CPU

LCG-France tier-2s
Delivered CPU [% of pledged]

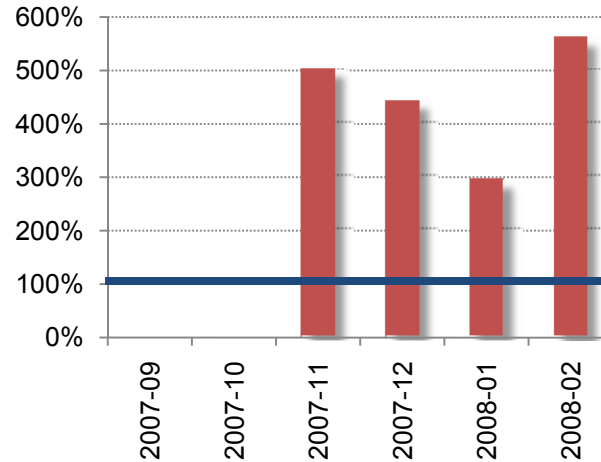


Actual contribution: CPU (cont.)

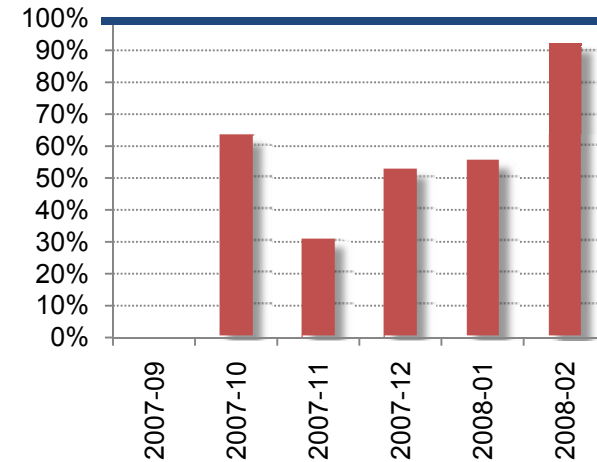
FR-GRIF



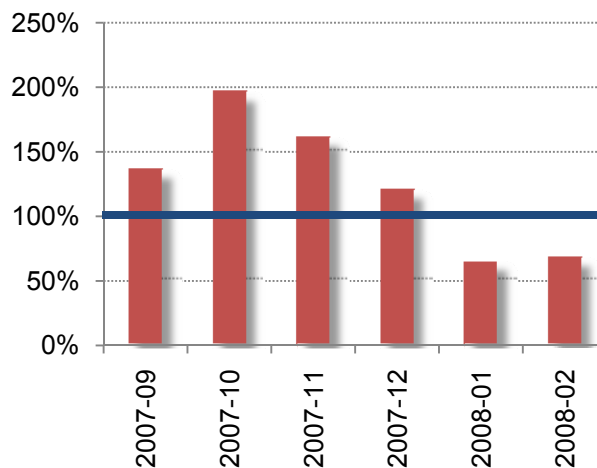
FR-IN2P3-CC-T2



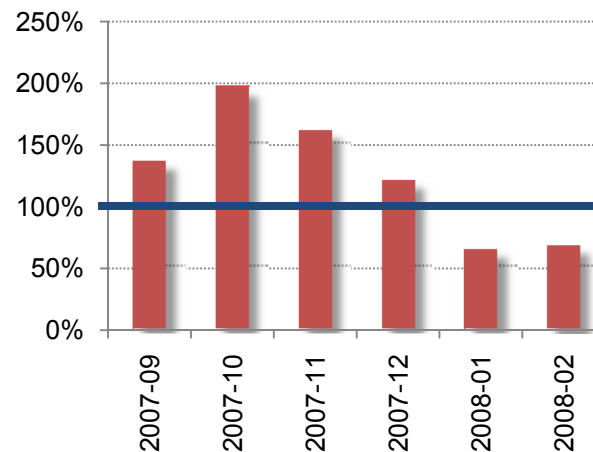
FR-IN2P3-LAPP



FR-IN2P3-LPC



FR-IN2P3-SUBATECH

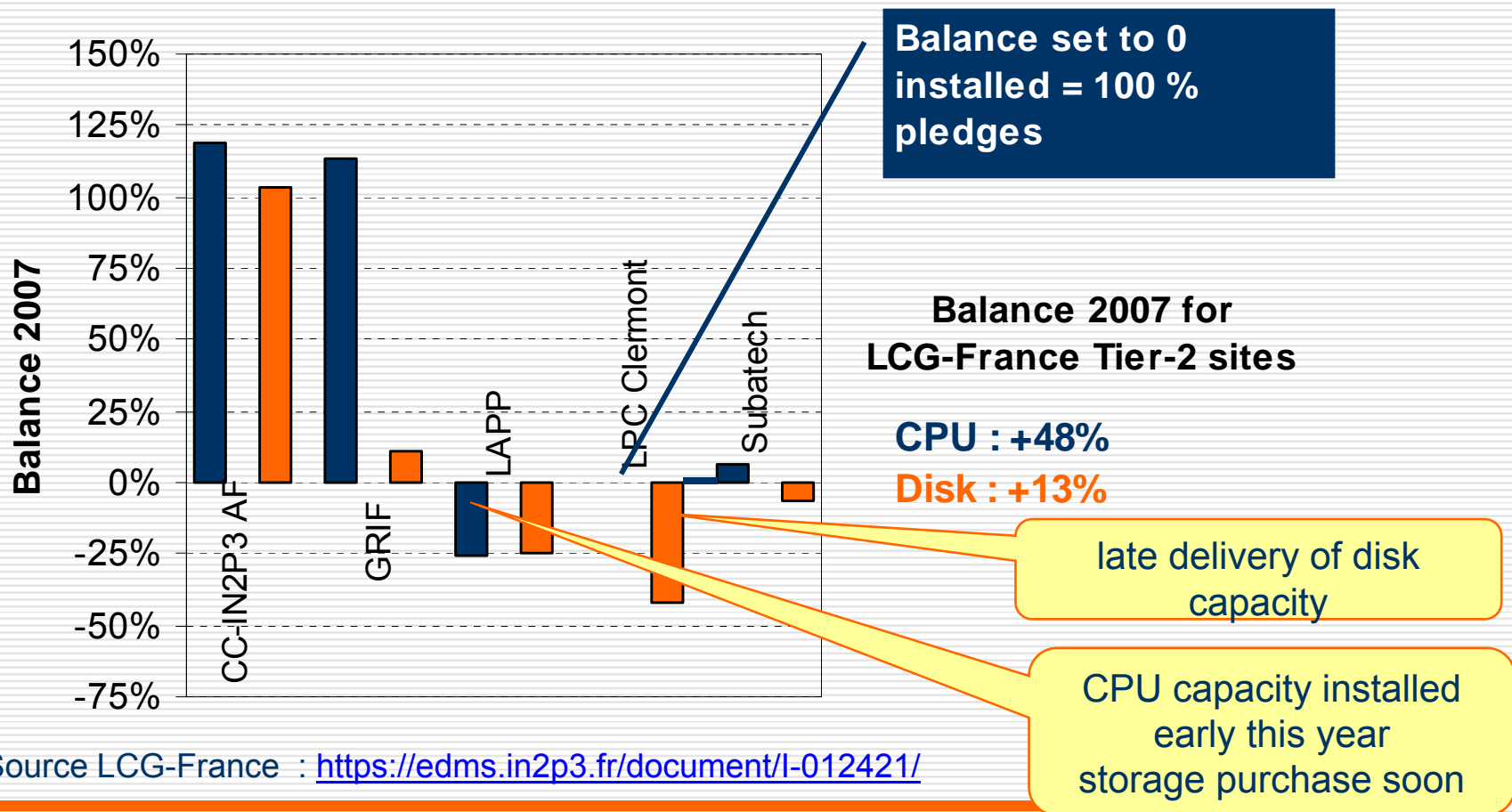


Delivered CPU
as a % of
pledge

*Note: scale are not
the same*

Installed capacity as of end 2008

- As reported by sites representatives (LCG-France report) installed/pledge CPU / Disk capacity

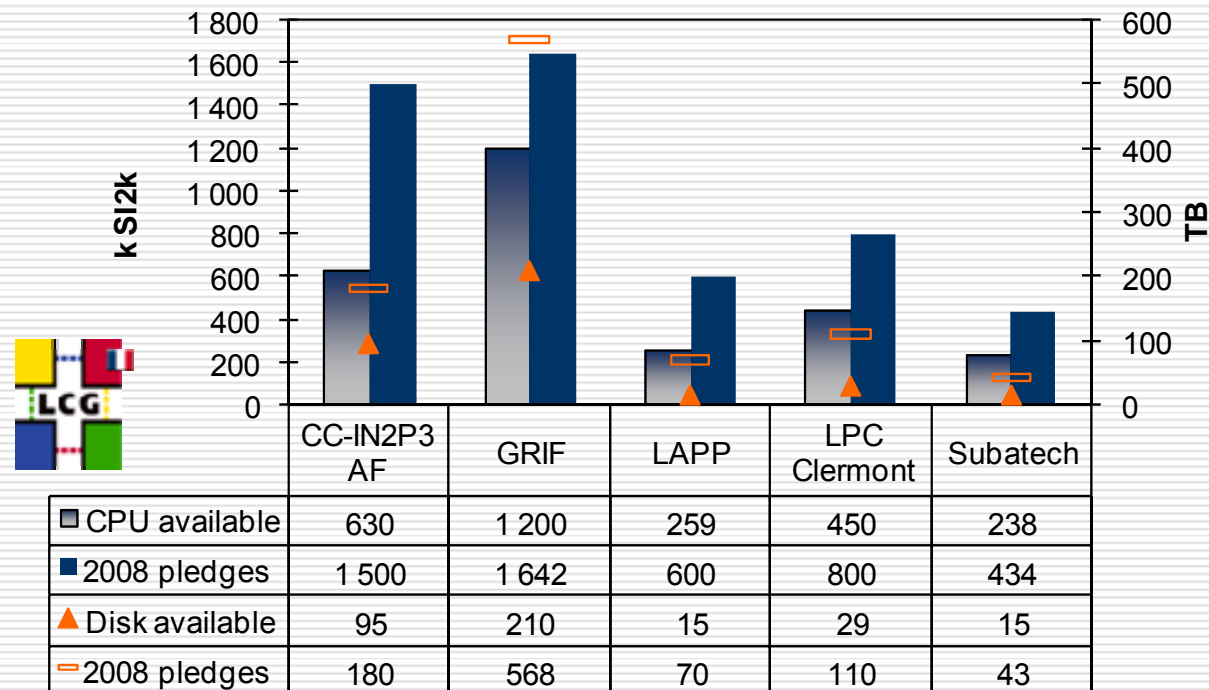


Source LCG-France : <https://edms.in2p3.fr/document/I-012421/>

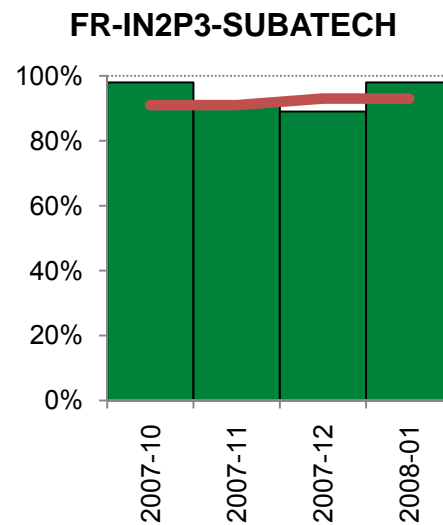
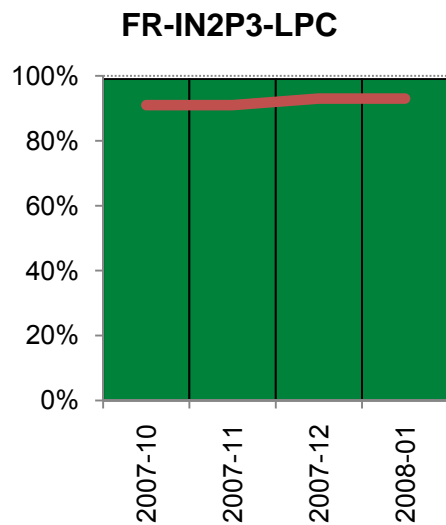
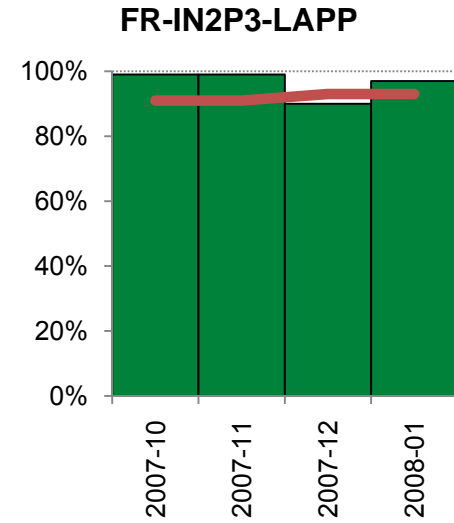
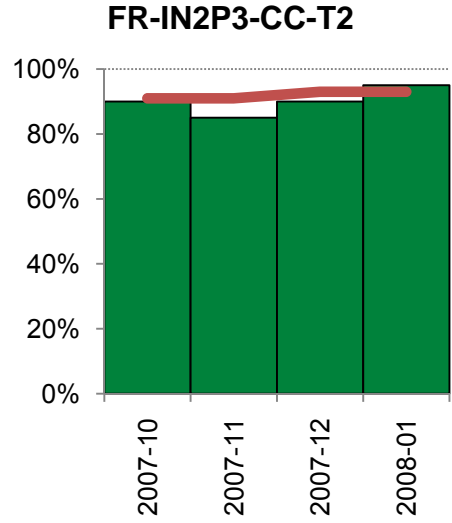
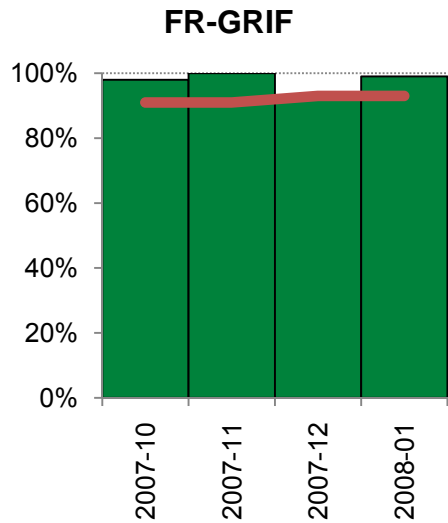
Pledges for 2008

- 2008 capacity ramp-up : pledged resources to be installed by April 1st.

installed/2008 pledges capacity



Tier-2 Availability



Noteworthy facts since 1 year

- Project management
 - MoU for LCG-France sites approved by involved parties
 - Project leaders' mandate renewed for 4 additional years (from June 2008)
- Sites
 - LAPP formally became tier-2
 - LPSC started deployment to become tier-3
 - GRIF growth continued: APC joined the boat
 - Tier-2 at CC-IN2P3 entered into production



Source: <https://edms.in2p3.fr/document/I-011763>



Noteworthy facts (cont.)

- **Activities within the framework of the T2 & T3 technical group**
 - Strong collaboration with EGEE regional operations and with french tier-1
 - Close contact with foreign associated tier-2s in Europe (Belgium and Romania) and Asia (China and Japan)
 - Established communication channels for technical activities reaching all partners
 - ◆ Regular meetings, mailing lists, wiki
 - Information sharing on hardware procurement (both technical and commercial-wise)
 - ◆ Feedback with our view of the first year experience been provided to interested vendors
 - Normalization of CPU power implemented following agreed WLCG metric

Noteworthy facts (cont.)

- Technical activities (cont.)
 - Contribution and leveraging on thematic training and experience-sharing sessions organized by EGEE-FR Operations
 - ◆ EGEE Induction course on [March](#) and [October](#) 2007 (for end-users and site administrators)
 - ◆ Storage and workload management on a grid context on [March 2007](#)
 - ◆ Torque/Maui workshop on [October 2007](#)
 - ◆ Grid-related security day on [October 2007](#)
 - ◆ To come: grid-monitoring workshop (Lyon, April 10th)
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=760>
 - Community of users of Quattor
 - ◆ Leveraging on the work of the [Quattor working group](#)

Noteworthy facts (cont.)

- Connectivity of sites

- Tier-2s & tier-3s

- ◆ Subatech, LPC Clermont: 1 Gbps to RENATER backbone
- ◆ LAPP, LPSC, IPHC: shared 1Gbps link to RENATER through the metropolitan/regional networks
- ◆ GRIF: ongoing 10 Gbps interconnection between sites (LAL, LLR and IPNO already done)
- ◆ IPNL: direct link to the tier-1

- Tier-1

- ◆ LHCOPN: alternative Lyon-CERN optical circuit through FZK
- ◆ Direct 10 Gbps link to GEANT routers for traffic with foreign tier-2s

- Support by RENATER is essential for this project

Next steps

- **Project management**
 - Finalize model for equipment budget for all sites
 - Regularly collect and consolidate data on installed capacity for LCG-France sites
- **Consolidation of the grid infrastructure services**
 - How many instances of every grid service do we need? Where to deploy them to maximize availability for all supported VOs?
 - ◆ Work to be performed in strong interaction with EGEE-FR operations
 - Monitoring of the (site and regional) grid infrastructure
 - Tools for site-level accounting (CPU and storage)

Next steps (cont.)

- Ramp-up
 - Participation to the second phase of CCRC (May)
 - ◆ See Michel's talk on the summary of the first phase (February)
 - Make sure we all (sites and experiments) understand what infrastructure is needed for analysis activities

Préoccupations des sites et des expériences (mémo)

- Calcul
 - Répartition de la capacité pour les différentes activités (priorités des jobs basée sur les rôles)
 - Efficacité CPU (temps CPU vs. temps elapse)
 - Publication nominative de l'utilisation des ressources et contraintes légales
- Stockage
 - Stabilisation de SRM v2 et utilisation des zones de stockage (disque et bande)
 - Contrôle d'accès basé sur VOMS
 - Support du protocole xrootd pour l'accès aux données gérées par dCache et DPM
 - Interaction efficace entre dCache et HPSS pour l'accès aux données sur bande (tier-1)
 - Accounting stockage
- Projet
 - Déploiement des ressources selon les engagements annuels
 - Équilibre à trouver entre les tier-2s et les tier-3s LCG-France

Prochains rendez-vous

- Avril 1: réunion CCRC '08 (CERN)
 - <http://indico.cern.ch/conferenceDisplay.py?confId=30246>
- Avril 7: comité de direction LCG-France (Lyon)
 - Sujet du jour: 5 problèmes critiques pour chaque expérience
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=542>
- Avril 10: journée "Monitoring Grid" (Lyon)
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=760>
- Avril 17: Workshop infrastructure pour l'analyse de données (Lyon)
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=722>
- Avril 18: réunion mensuelle tier-2 et tier-3s (Lyon et visio)
 - Proposition de présentation de la roadmap des produits IBM d'intérêt potentiel pour ce projet
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=416>
- Avril 21-25: WLCG Collaboration Workshop (CERN)
 - <http://indico.cern.ch/conferenceDisplay.py?confId=6552>
- Mai 5-9: Hepix (CERN)
 - <http://indico.cern.ch/conferenceDisplay.py?confId=27391>
- Juin 12-13: CCRC'08 post-mortem workshop (CERN)
 - <http://indico.cern.ch/conferenceDisplay.py?confId=26921>

Events

- [WLCG Collaboration workshop](#) [CERN, January 2007]
- [2nd LCG-France colloquium](#) [Clermont, March 2007]
- Training sessions for EGEE site administrators [Lyon, March 2007]
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=190>
 - <http://indico.in2p3.fr/conferenceDisplay.py?confId=CCa0713>
- [International symposium on grid computing](#) [Taiwan, April 2007]
- [Atlas tier-1 tour](#) [Lyon, April 2007]
- [Atlas 3 tier-1 meeting](#) (with BNL & FZK) [Lyon, May 2007]
- [HPC File Systems: from clusters to grid](#) [Rennes, October 2007]
- [CMS tier-1 tour](#) [Lyon, November 2007]
- [Inauguration Institut des Grilles](#) [Orsay, Decembre 2007]
- [CMS Data and Workload Management workshop](#) [Lyon, January 2008]
- Certainly other events I'm not aware of
 - Should we collect all the LCG-France related publications in the wiki?

Press & media, public relations

- CERN courier, June 4, 2007
 - <http://cerncourier.com/main/article/47/5/15/1>
- International science grid this week, May 9, 2007
 - <http://www.isgtw.org/?pid=1000414>
- Annual booths for the « Fête de la Science » since 2005
- LCG News, Sep. 2006
 - <http://lcg.web.cern.ch/LCG/LCGnews/LCGSepOct06.pdf>
- Creation of LCG-related communication supports
 - Flyers, brochures, etc.
- Organisation of several visits to CERN for VIPs, press, hardware vendors, etc.

More Information

- LCG-France website <http://lcg.in2p3.fr>

Questions

