



Computing in High Energy and Nuclear Physics

13-17 février 2006, T.I.F.R. Mumbai, India

10-12 février SC4 LCG Workshop



Aperçu général

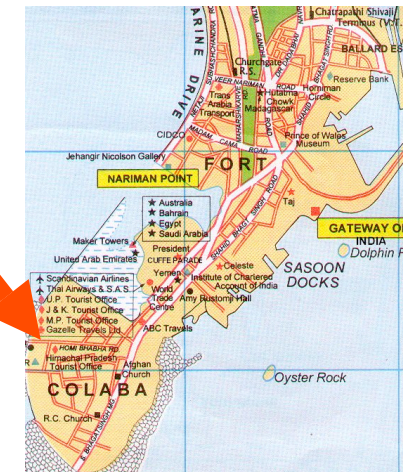
- Organisation et participation
- Programme et sessions
- Qques rappels et éléments pour mieux comprendre la suite !
 - Historique
 - NA,SA,JRA dans EGEE
 - Architecture des services GRID



Aperçu général ...

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- TIFR Centre de recherche (au sud de Bombay)
- Bonne organisation et prise en charge des participants
- Évènement insolite; visite du Président de l'Inde Abdul KALAM
- Conférence réussie





TIFR



Abdul KALAM





Participation

- 150 SC4, 450 CHEP06
- *modeste présence IN2P3, CC(6), LAL(6), LLR(2) Subatech(2), LPNHE(1), LPSC(2) et DAPNIA(3)*
- *mais honorable ...*
 - *présentations*
 - *GRIF, a Tier2 center for Paris region* *Michel Jouvin*
 - *Using Java Analysis Studio as an interface to the Atlas Offline Framework* *Julius Hrivnac*
 - *posters*
 - *Integration of graphviz within OnX* *Laurent.Garnier*
 - *Optimized access to distributed relational database system* *Julius Hrivnac*
 - *Guy Wormser chairman d'une session plénière*



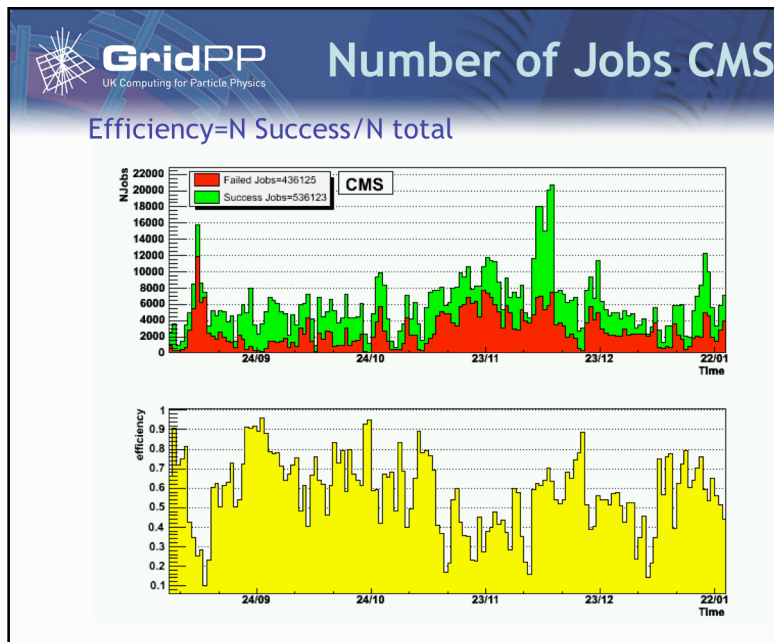
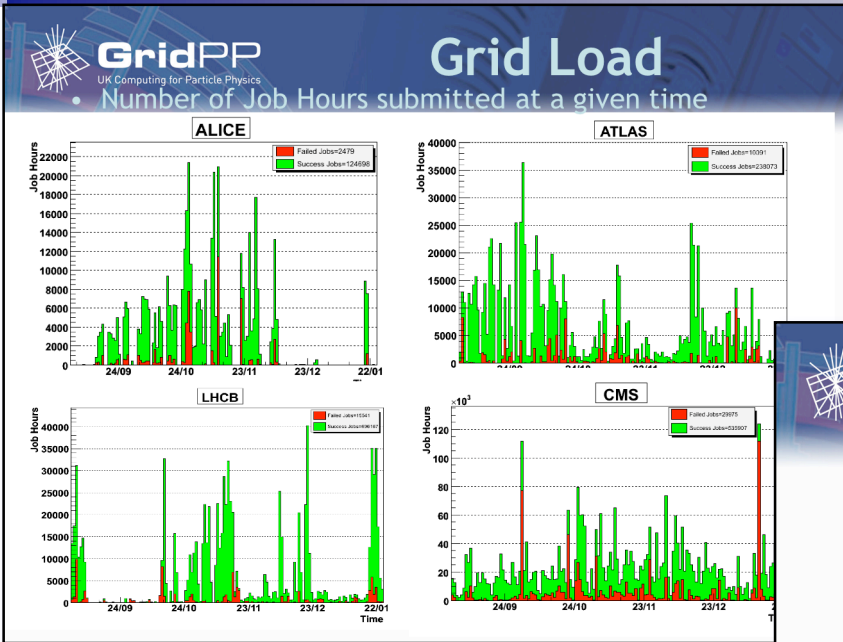
Aperçu général ...

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Programme

- Essentiellement focalisé sur LCG car contrainte LHC (juin 2007)
- Encore beaucoup à faire, mais progrès visibles depuis dernier CHEP
- La grille fonctionne, mais doit monter en puissance (actuellement à 25%)
- Le prochain SC4 (juin 2006) devrait valider une infrastructure proche de l'état final



GridPP UK Computing for Particle Physics

Introduction

Grid Monitor
Tasks: LCG World Real Time Monitor (1024x768)

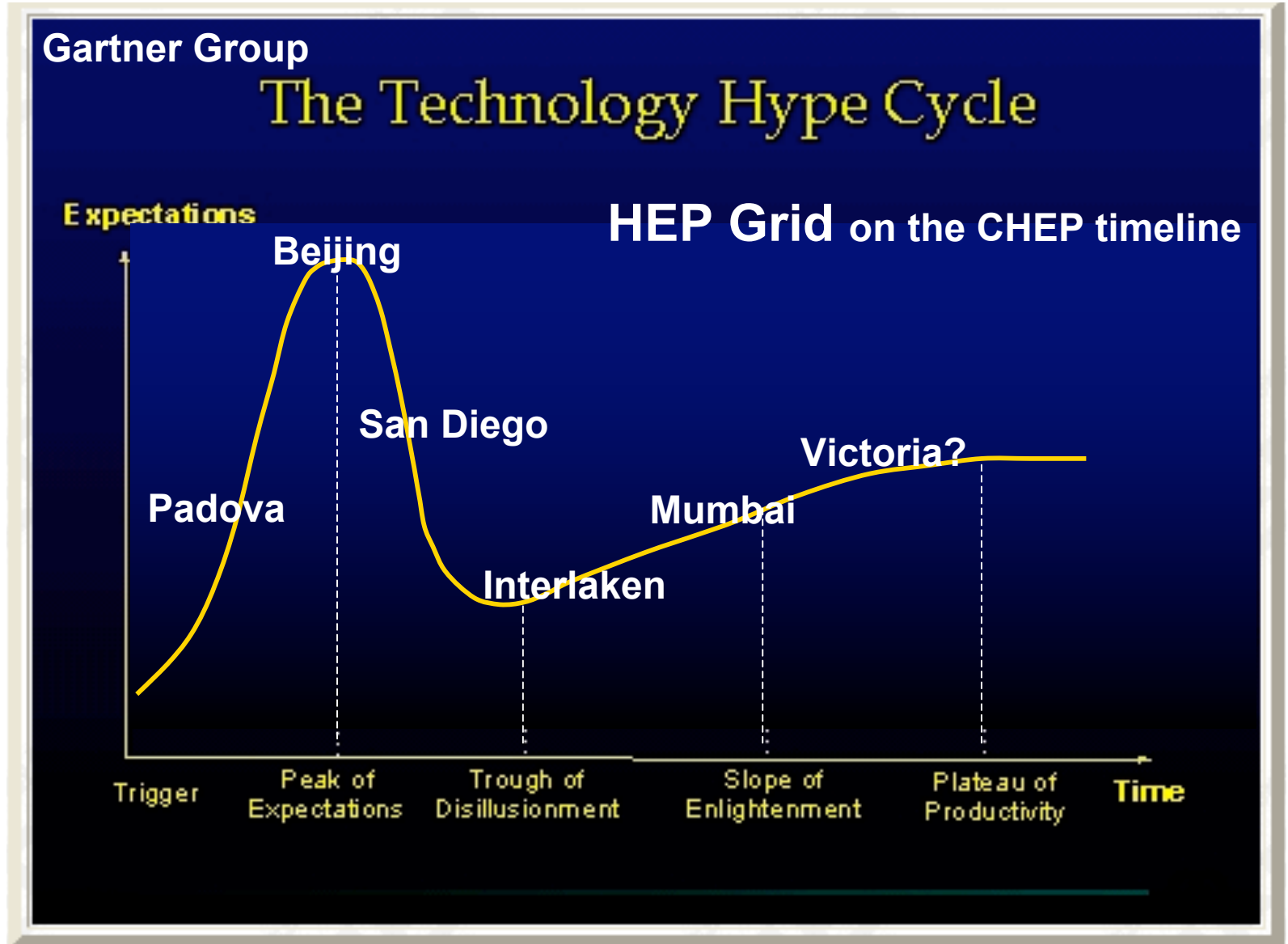
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Submitted:	90
Waiting:	75
Ready:	83
Scheduled:	2221
Running:	1540
Done:	1721
Aborted:	370
Cancelled:	0
Active Sites:	114 / 6100

Developed by: Science HP
Imperial College London

<http://gridportal.imperial.ac.uk>

Cliquer ici pour la grille «in live»

But if we were realists – like the Gartner Group analysts – that is exactly what we would have expected





Programme ...

■ Sessions plénières (24)

- Status of the LHC Machine Jos ENGELEN (CERN)
- Next Generation DAQ Systems Beat JOST (CERN)
- The LHC Computing Grid Service Les ROBERTSON (CERN)

- Low Cost Connectivity Initiative in India Ashok JHUNJHUNWALA (IIT, Chennai)

■ Sessions parallèles

- 8 thèmes avec 25 à 40 présentations
- Les «summaries»

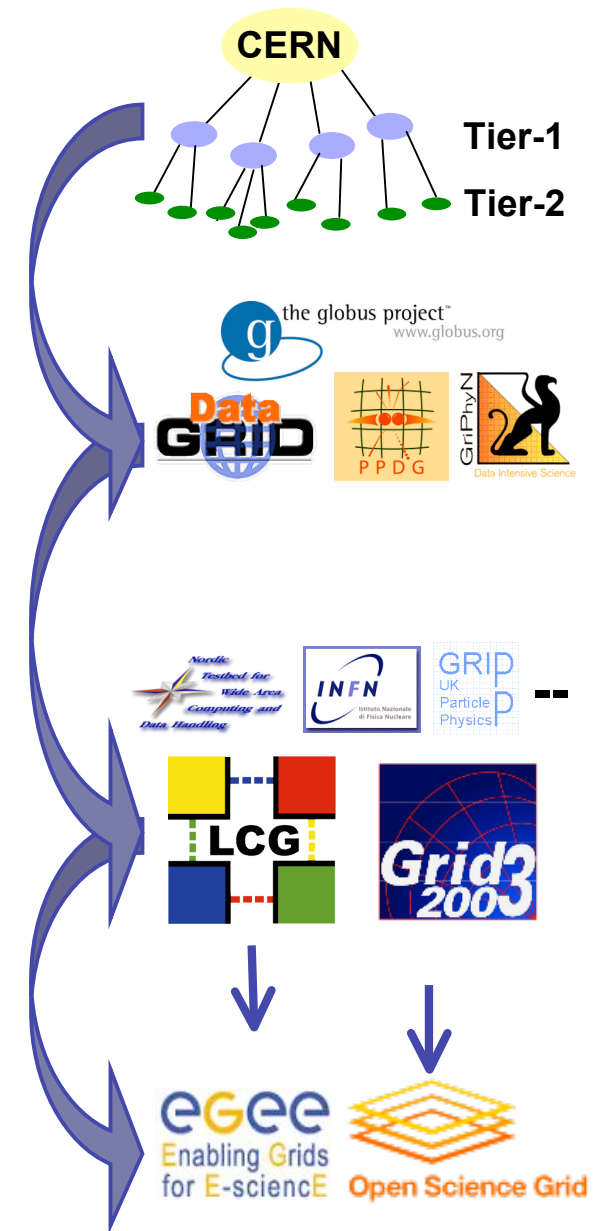


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A bit of history

- 1999 – the **MONARC** project
 - A straightforward distributed model
 - An inverted tree with data flowing out along the branches
 - Gave us the **Tier** nomenclature
- 2000 - CHEP Padova
 - growing interest in grid technology
 - HEP community main driver in launching the DataGrid project in Europe
 - PPDG → GriPhyN in the US
 - **middleware & testbeds for operational grids**
- 2001 - CHEP Beijing
 - Saw HEP infrastructure projects being prepared for launch -- LCG, national projects
- 2003 – CHEP San Diego - production grids
 - LCG-1 – integrating a number of national grid infrastructures
 - Grid 3 growing out of a Supercomputer demo
- 2004 – CHEP Interlaken
 - expanding to other communities and sciences
 - EU EGEE project with major EU funding
 - **starts from the LCG grid**
 - Open Science Grid



LCG services – built on two major science grid infrastructures

- EGEE - Enabling Grids for E-Science*
- OSG - US Open Science Grid*



A map of the worldwide LCG infrastructure operated by EGEE and OSG.

La nomenclature CEE, NA, SA, JRA



■ **Networking Activities (NA)**

- l'organisation, la communication, la formation

...

■ **Service Activities (SA)**

- l'opérationnel et l'administration des ressources

■ **Research Activities (JRA)**

- les développements logiciel, middleware



EGEE Networking Activities (NA)

- Networking Activity 1 (NA1) is the overall management of the project
- Networking Activity 2 (NA2) is Information Dissemination and Outreach and includes tasks such as running the external website, organising conferences and managing the distribution of publications.
- Networking Activity 3 (NA3) is User Training and Induction and includes tasks such as organising on-site training and producing training and course material
- Networking Activity 4 (NA4) is Application Identification and Support and includes tasks such as supporting pilot applications and identifying new users.
- Networking Activity 5 (NA5) is Policy and International Cooperation and includes tasks such as liaising with parties interested in the EGEE project on an international level.



EGEE Specific Service Activities (SA)

- **Specific Service Activity 1 (SA1)** is European Grid Support, Operation and Management and includes tasks such as grid monitoring and control and resource and user support.
- **Specific Service Activity 2 (SA2)** is Network Resource Provision and includes tasks such as policies and service level agreements



EGEE Joint Research Activities (JRA)

- **Joint Research Activity 1 (JRA1)** is Middleware Re-engineering and Integration and includes tasks such as re-engineering existing middleware, integrating middleware, testing and validation.
- **Joint Research Activity 2 (JRA2)** is Quality Assurance and includes tasks such as ensuring that processes, products and operation services conform to project requirements, standards and procedures.
- **Joint Research Activity 3 (JRA3)** is Security and includes tasks such as developing security frameworks and policies and designing security mechanisms.
- **Joint Research Activity 4 (JRA4)** is Network Service Development and includes tasks such as developing interfaces to the network and advance reservations of network connectivity in terms of bandwidth, duration and quality of service

gLite Architecture

