



CMS Tier2 Belgium

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CMS Belgium: Institutes

5 institutes:

- UA (Antwerp)
- UCL (Louvain-La-Neuve)
- ULB (Brussels)
- UMH (Mons)
- VUB (Brussels)

35+ physicists doing analysis



CMS Belgium: Physics

Physics interests:

- Higgs \rightarrow WW $\rightarrow \ell \ell^{-}(\ell)$,SUSY Higgses
- Top-physics
- High-energy electron pairs and Extra-Dimensions
- Physics with forward protons

Belgian representatives are coordinating:

- Vertex reconstruction
- Tracker Data Handling (Local reconstruction, Calibrations (excluding alignment), Commissioning and Monitoring)



Current state: grid activity in Belgium

2 research grids:

- Begrid, federal
 Used by 7 institutes
 330 CPU, 4TB
- BelGrid, walloon
 Used by 5 institutes
 70 CPU, 2TB

For Grid research and promotion of Grid computing in scientific research and industry.



Current state: CMS computing

Local non-shared resources: 100+ CPU, 20+ TB

CMS software installed

- OSCAR (detector simulation), ORCA (reconstruction), FAMOS (fast simulation)
- Crab (end-user analysis on Grid)
- PubDB (data publication)
- Phedex (data transfer)



Current state: CMS computing (2)

Grid resources

- Being used by Belgian CMS people
 - Analysis (crab+ORCA)
 - Fast Simulation (crab+FAMOS)
 - Full Simulation (homebrew scripts+OSCAR+ORCA)
- →Only with/for local data



Future: CMS Requirements

Belgium has introduced budget requests to build a nominal CMS Tier2

Federated structure with 2 sites:

- UCL
- ULB-VUB

Numbers:

	2007	2008	2009	2010
CPU (MSi2k)	0.4	0.9	1.4	2.3
DISK (PB)	0.1	0.2	0.4	0.7



2006: Planning (I)

Most important: Storage (+100TB in 1.5y)

→ Further deployment of storage solutions: dcache (maybe others, eg xrootd)

Other points:

- → Network tests (BW and stability to/from T1, eg CC-IN2P3)
- → IO-tests: need to get 2MB/s/batch-slot
- → CMS: data publication, PHEDEX, analysis on locallyhosted official data
 - (+ similar tests for local data)
- → Centralised site configuration
 - → Managed by Quattor



2006: planning (II)

Timetable 2006 (proposal):

- till 01/01: centralised site configuration
- 01/01-01/02: test CMS tools with at least one full official dataset in T2B (ready to do analysis) by 01/02
- 01/02-15/02: increased (80%) VO CMS trials
- 15/02-01/04: tests of Glite and/or new CMSSW
- 01/04-01/07: SC4 (must be rather stable by 01/03)
- 01/07-01/09 : ... (probably SC4 ;)
- 01/09-...: CSA06

Conclusion: we'll be busy.



