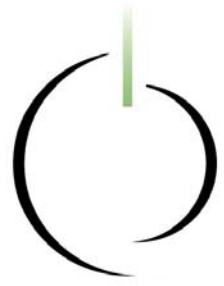


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# Deployment of a gLite-based Grid Platform at CETIC

*Syed Naqvi et al.*

[Syed.Naqvi@cetic.be](mailto:Syed.Naqvi@cetic.be)





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# CETIC



- Research Center in Information and Communication Technologies
  - Created in 2001, by 3 Belgian Universities
  - Non-profit center, 25 researchers, 2.5 M€ budget
  - **Applied Research** & **Technology transfer**
  - Connecting Research Labs To Enterprises
- Serving the Industry
  - Contribution to regional economic development
- Initiated by:
- Supported by:



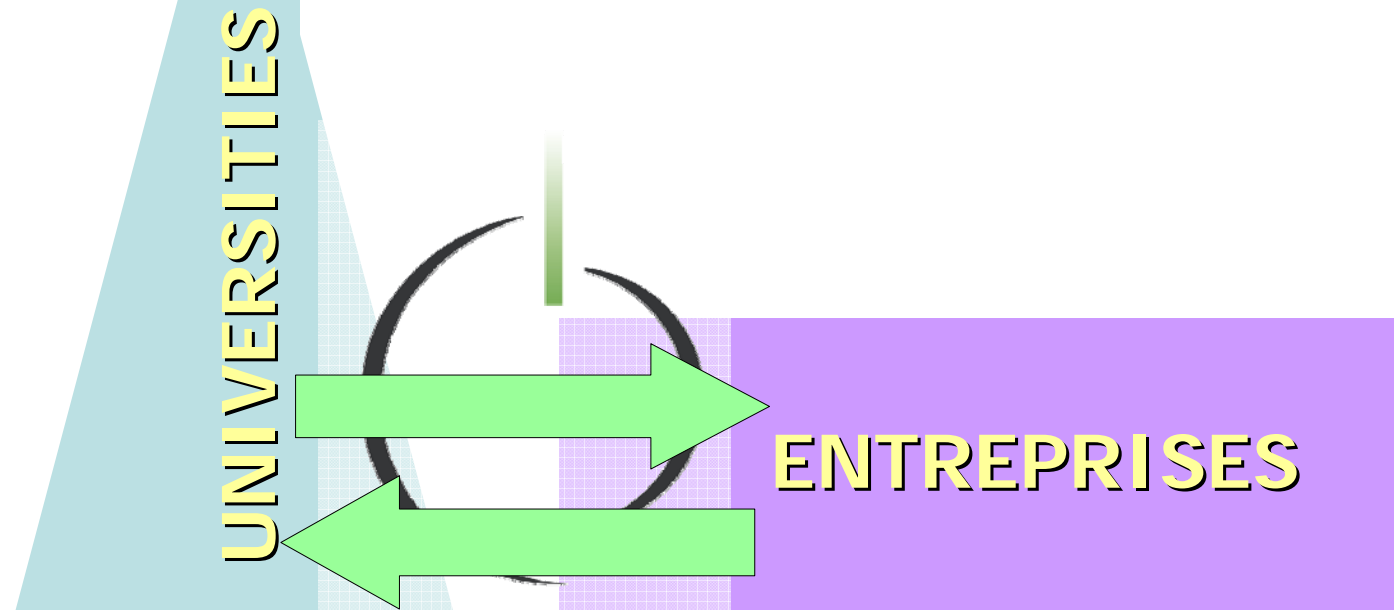


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# Positioning

An ICT R&D Centre Serving The Industry



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- *Applied Research*
- *Feasibility Studies*
- *Technology Transfer*
- *Spin Off creation*

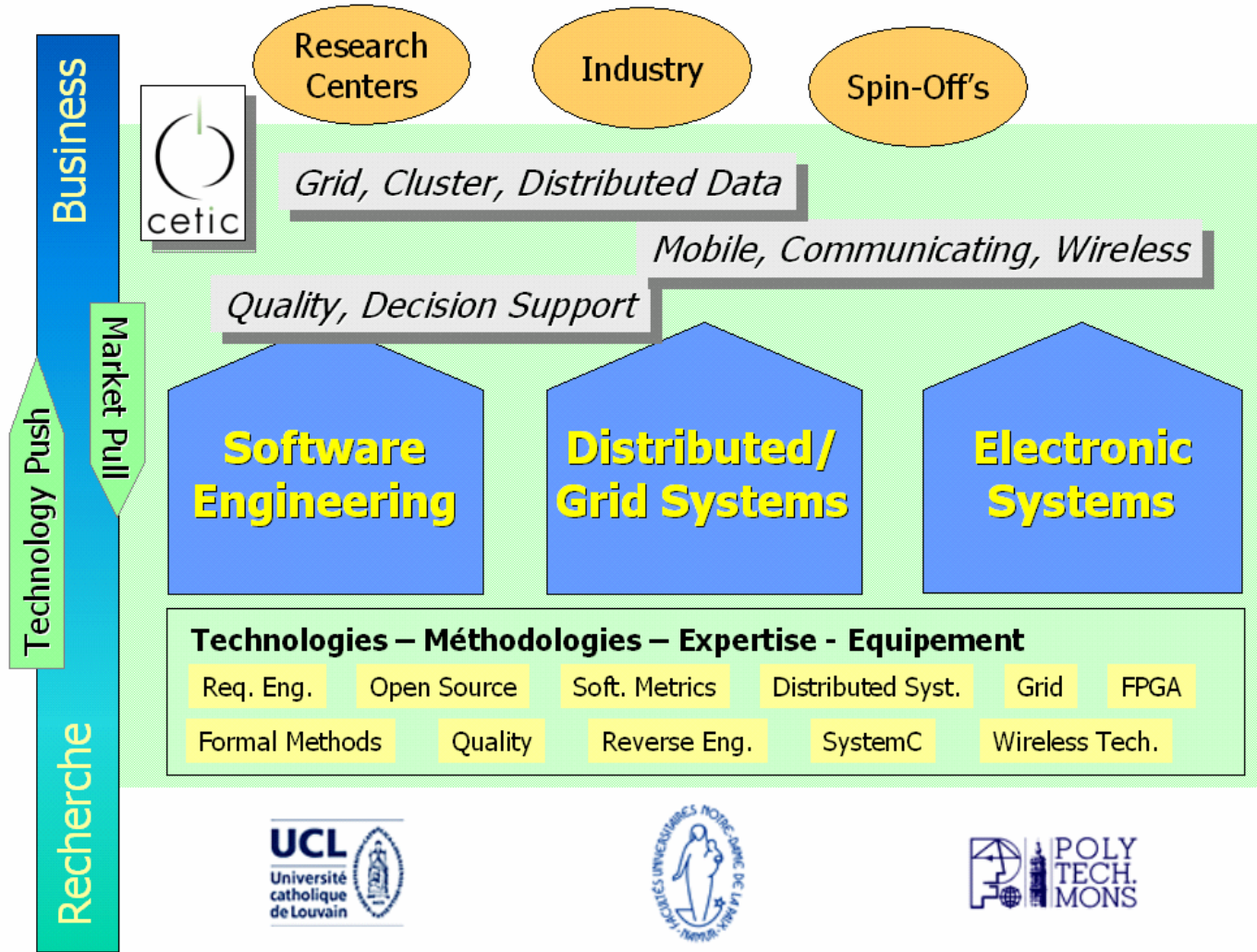




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# CETIC Research





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# CETIC Research Areas

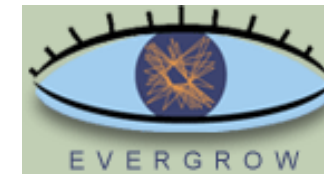
- Software Engineering
  - Software Products Quality
    - Metrics, Monitoring, Impact on software processes
  - Security – Critical Systems Modelling
  
- Distributed Data Technologies
  - Grid Technologies, Cluster
  - Web data mining
    - Search Engine
    - Reverse Engineering
  
- Micro-Electronics
  - Wireless Technologies
  - Co-design - FPGA



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# On-going FP6 Projects



26 September 2006

EGEE'06 Conference, Geneva Switzerland



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# CETIC & Belgian Grid



BEgrid

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- [K.U. Leuven](#)
- [UA](#)
- [UGent](#)
- [ULB](#)
- [ULB-STC](#)
- [VLIZ](#)
- [VUB](#)

### Planning to enter the project:

- [FPMS](#)
- [CETIC](#)
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Rechercher...

BUSINESS EXPERIMENTS IN GRID

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24-09-2006

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BE3 - Visualisation and Virtual Reality



The objective of this experiment is to drastically increase performances of 3D rendering used by architects without expensive additional hardware investment by distributing rendering services using Grid technologies.

Nowadays invitations to tender, in architectural business area, request from the respondent more reactivity and quality than ever. Firms of architects have in general a period varying between few days to several months in order to produce graphical pilot studies. The graphical quality of these pilot studies is a critical factor in the evaluation of the entire project. The more a project will be original, detailed, and realistic, the more it will have chances to win the tender.

Nevertheless, in this process, architects clearly identify the rendering phase as the bottleneck. This operation is quite time consuming due to the size of the source graphical model to be computed.

Improving significantly the performance of rendering operations, represents an opportunity for architects to reduce the time dedicated to the rendering and to increase the quality of the produced rendering.

Grid resources represent a great opportunity to solve this kind of problem by adapting rendering application to the Grid environment. The objective of the experiment is to adapt existing rendering application in order to distribute rendering jobs on a Grid. Existing hardware (personal computers) available in architect firms will be used to build such a Grid to avoid huge investment in costly infrastructure.





# A flexible solution A new level of performance



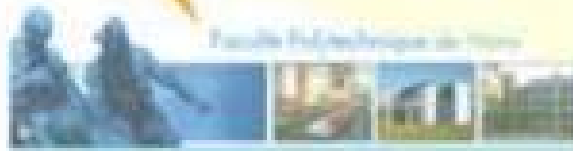
*A demanding user*



*A rendering leader*

18 months to significantly speed-up realistic rendering via Enterprise Grid (Worldwide Grid Ready)

- Acquire more quality in less time (improve reactivity and promote creativity)
- Towards real-time scene modification and interactive virtual visit



*Two Grid specialists*

Both performance and flexibility will be evaluated as many platforms will be involved: CETIC cluster, FPMS cluster, Art&Build desktop workstation network and Grid5000



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# CETIC has ...

## ■ A Cluster

- 38 nodes
- 74 processors
- 160 GB RAM
- 10 TB disk storage



- A number of pilot Grid applications
- A team of motivated researchers and engineers





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CoreGRID

# CETIC is looking for ...

- Deployment of **generic, gLite based** Grid Platform to:
  - run applications
  - administer the resources
  - launch experimentations
  - enable prototyping of research results
- Collaborations with EGEE Project!





Sponsorisé par



# dimanche 1 octobre 2006 de 10h à 17h Journée Découverte Entreprises

L'événement-référence du monde des entreprises en Belgique !

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Venez célébrer avec nous les 5 ans du CETIC !



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[www.cetic.be](http://www.cetic.be)



Itinéraires >>



Spécialisé dans les Technologies de l'Information et de la Communication (TIC), le CETIC est un centre de recherche appliquée et de transfert de technologie au service des entreprises. Nous vous attendons ce 1er octobre, de 10h à 17h pour vous faire découvrir les applications de nos recherches...

**Pour de plus amples informations, consultez notre site internet [www.cetic.be](http://www.cetic.be)**

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