



eGEE

Enabling Grids for E-scienceE



From research to production grids: interaction with Grid'5000

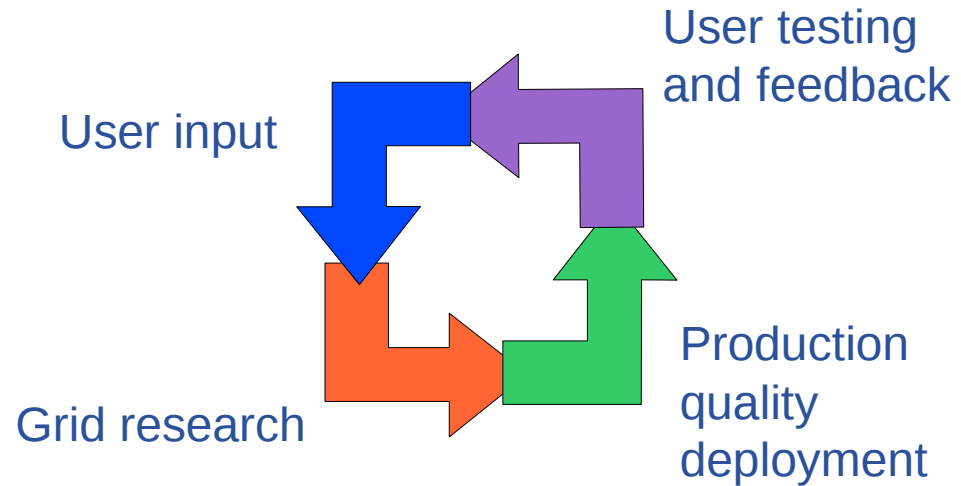
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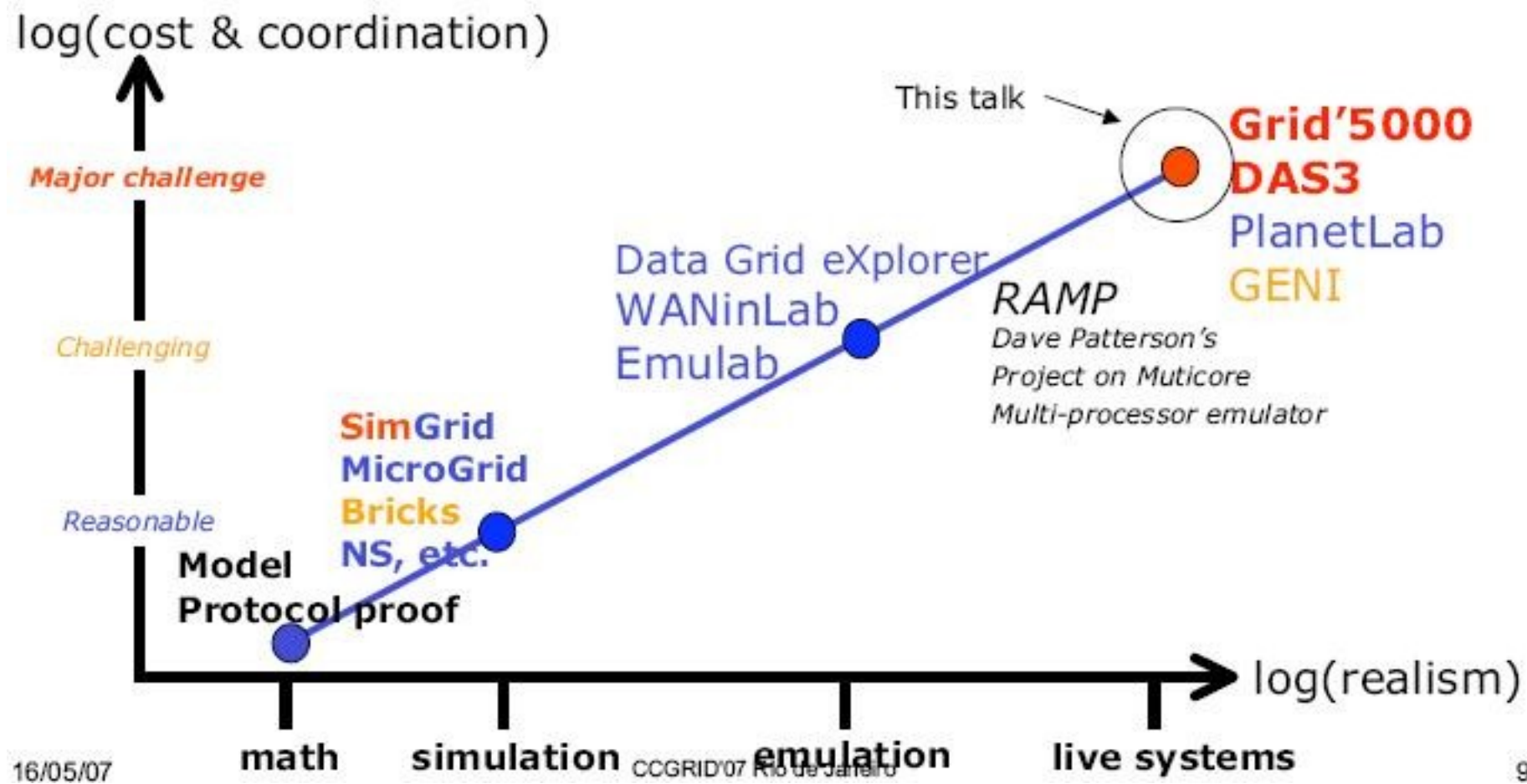
- **From research to production grids**
 - The virtuous cycle



- Research and production infrastructures are complementary tools
- Fostering exchanges and collaboration between the EGEE production grid experts and the research community
- **Fostering exchanges and collaboration between the production and research communities**
 - Talks describing various aspects of Grid'5000 based research
 - Discuss challenges arising on the EGEE production infrastructure

- **Challenges in unprecedented large scale environments**
 - System scalability
 - Resources volatility
 - Security
 - Heterogeneity
 - Performance guarantees
 - Fault tolerance
 - ...
- **Application-related challenges in a highly competing and distributed environment**
 - Deployment
 - Distribution and performance
 - Adaptation to variable load conditions
 - ...
- **The behavior of grid systems, exploited under permanent and variable load, is still little understood**

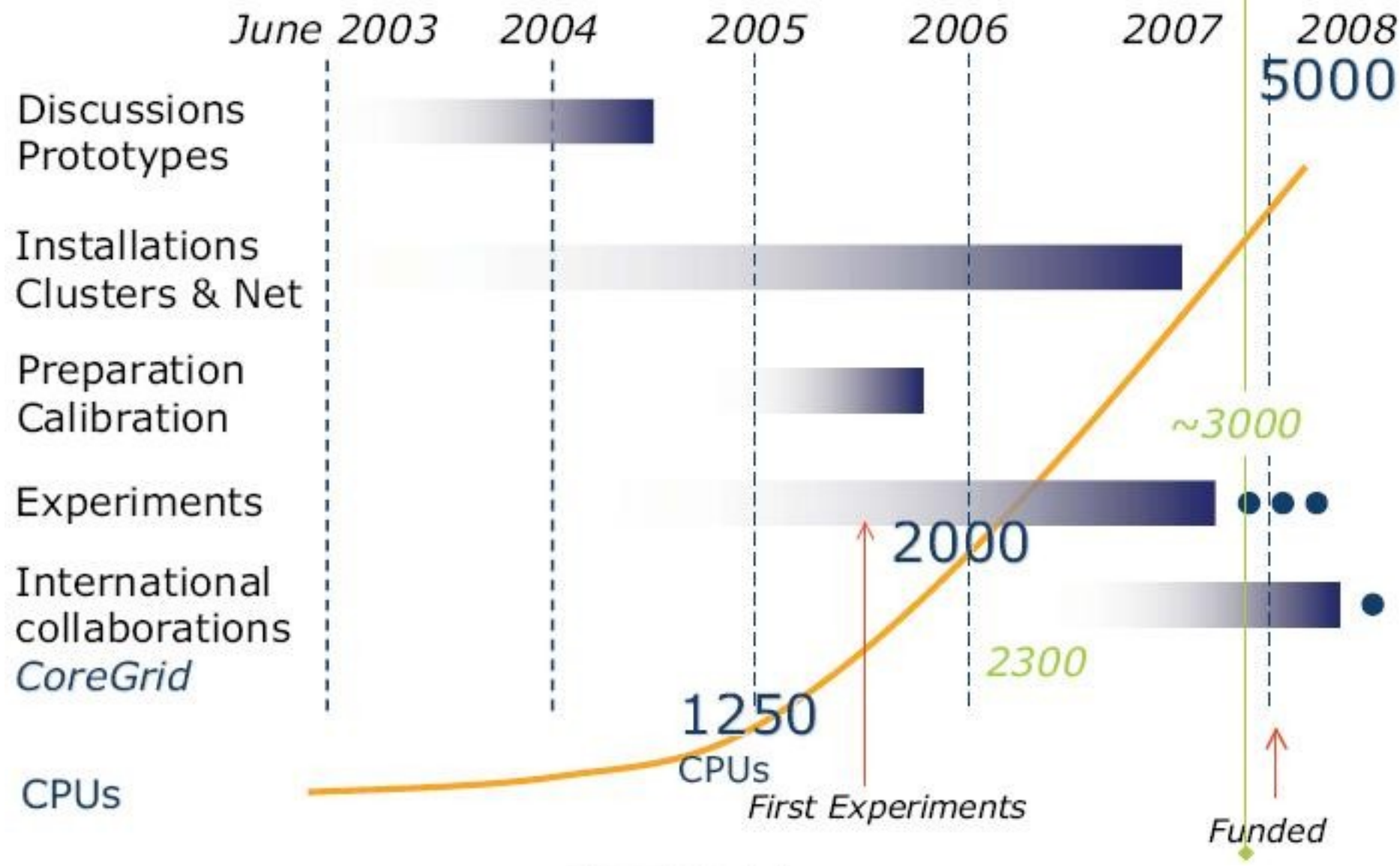
- **National research effort developing a large scale nation wide infrastructure for Grid research**
 - Highly reconfigurable, controllable and monitorable experimental Grid platform
 - 9 sites geographically distributed in France
 - 100 to a thousand PCs per site
 - connected by the RENATER Education and Research Network (1 Gb/s to 10Gb/s links)
- **This infrastructure is a large scale testbed where real life experimental condition hold. It complements**
 - Theoretical models
 - Simulators
 - Emulators
 - ... and production environments
- **International collaborations**
 - DAS3 (NL)
 - NAREGI (JP)

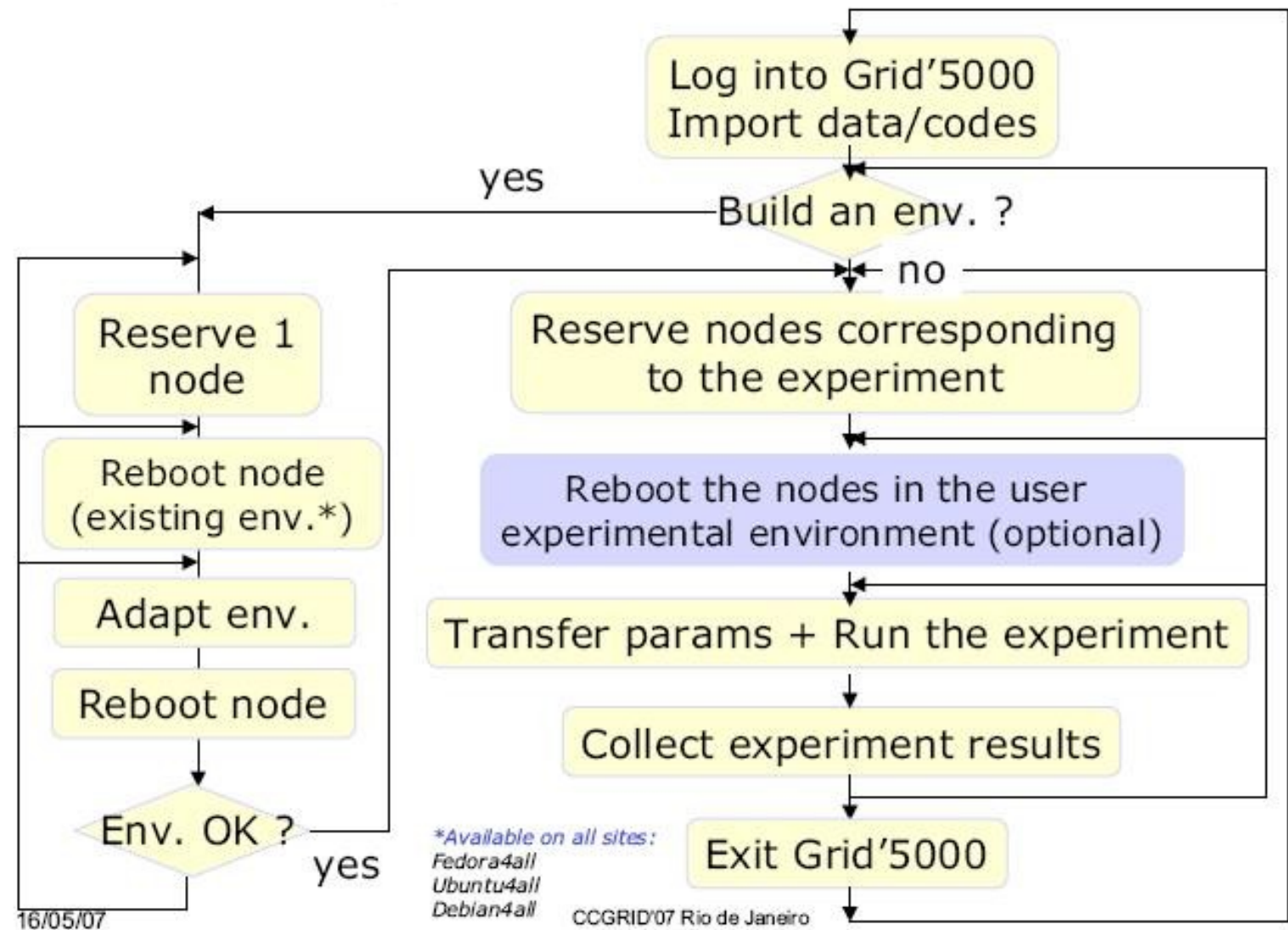


16/05/07

CCGRID'07 Rio de Janeiro

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- **3 hours session**
 - 11:00 – 12:30 and 14:00 – 15:30
- **Talks from Grid'5000 contributors**
 - Grid modelling and submission parameters optimization
 - Experiments performance analysis
 - Tools for large scale computations deployment and monitoring
 - Grid software deployment
 - Resources management and idle resources exploitation
- **Input from EGEE**
 - Open challenges identification
 - SA1 (operations)
 - JRA1 (middleware)
 - SA3 (integration, testing and certification)
- **Panel discussion**

- **Modeling the EGEE latency to optimize job time-outs**
 - Grid modeling, joint use of EGEE and G5K infrastructures
- **Expo : an experiment framework for dedicated platforms**
 - Controlled experiments framework
- **IV Grid Plugtests: composing dedicated tools to run an application efficiently on Grid'5000**
 - Tools integration for large scale application deployment
- **All-in-one graphical tool for grid middleware management**
 - Short introduction to the demonstration (today, 4-6 pm)

- **DeployWare: A Framework for Automatic Deployment of Software Systems on Grids**
 - Application environment deployment and management
- **Simple, fault tolerant, lightweight grid computing approach for bag-of-tasks applications**
 - Resources allocation
- **20 minutes per talk including questions, please keep on schedule!**

- **EGEE representatives**
 - Francesco Giacomini (JRA1)
 - Nick Thackray (SA1)
 - Olivier Keeble (SA3)
 - Charles Loomis (NA4)
- **G5K representatives**
 - Franck Cappello
 - Eddy Caron
 - Olivier Richard
- **Audience**
 - Please contribute!