



ETICS
The Grid Quality Process

ETICS: E-infrastructure for Testing, Integration and Configuration of Software

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- **Vision:** A dependable, reliable, stable grid infrastructure requires high-quality, thoroughly tested, interoperable software middleware and applications
- **Mission:** Provide a generic service that other projects can use to efficiently and easily build and test their grid and distributed software. Set up the foundations for a certification process to help increasing the quality and interoperability of such software

- **ETICS stands for e-Infrastructure for Testing, Integration and Configuration of Software**
- **It's an SSA**
- **It has been granted a contribution of 1.4 M€**
- **It has a duration of two years**
- **The project has started on January 1st, 2006**



Build system, software configuration, service infrastructure, dissemination, EGEE, gLite, project coord.

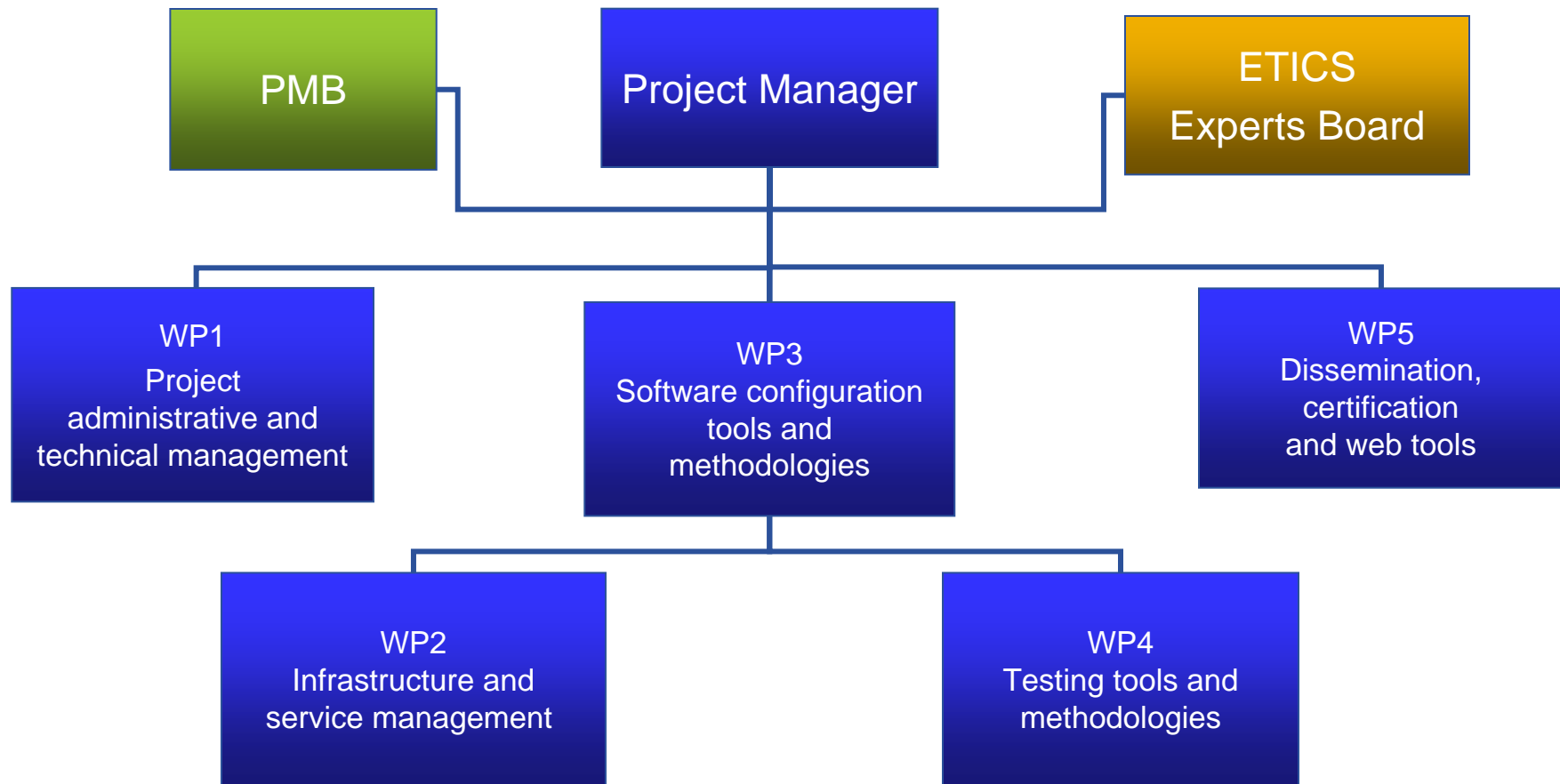
Software configuration, service infrastructure, dissemination

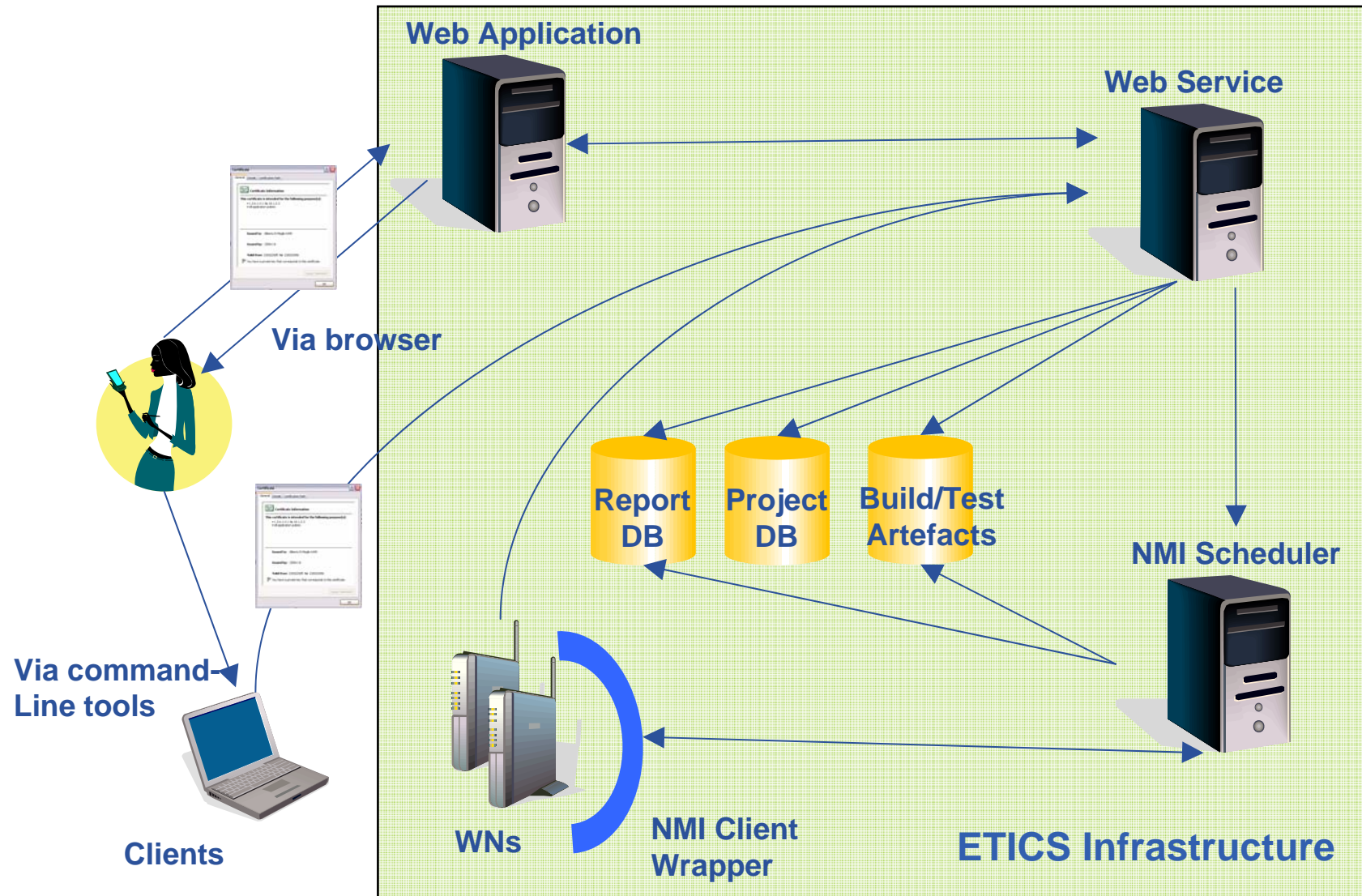
The Condor batch system, distributed testing tools, service infrastructure, NMI

Web portals and tools, quality process, dissemination, DILIGENT

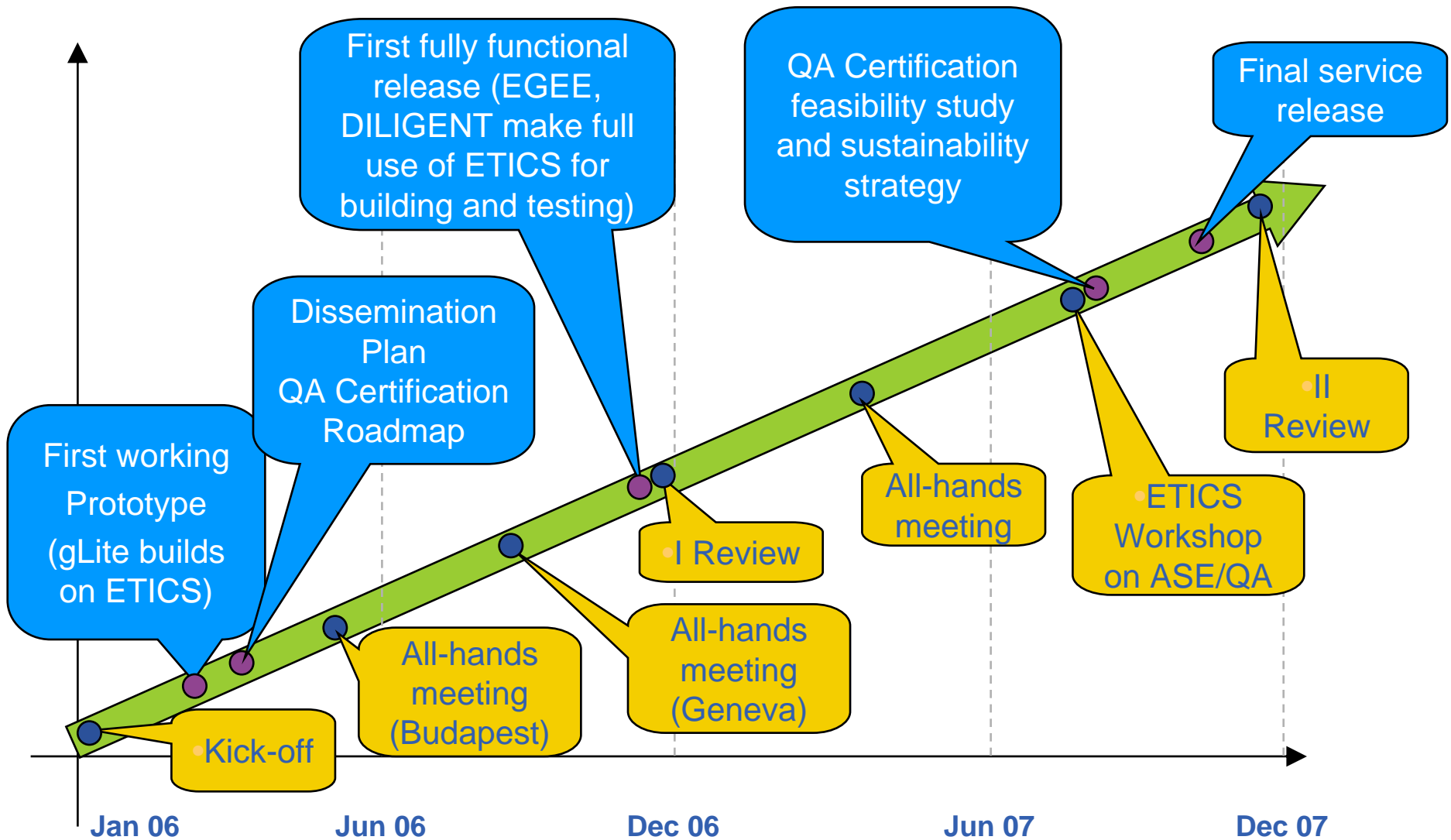
Test methods and metrics, unit testing tools, EBIT



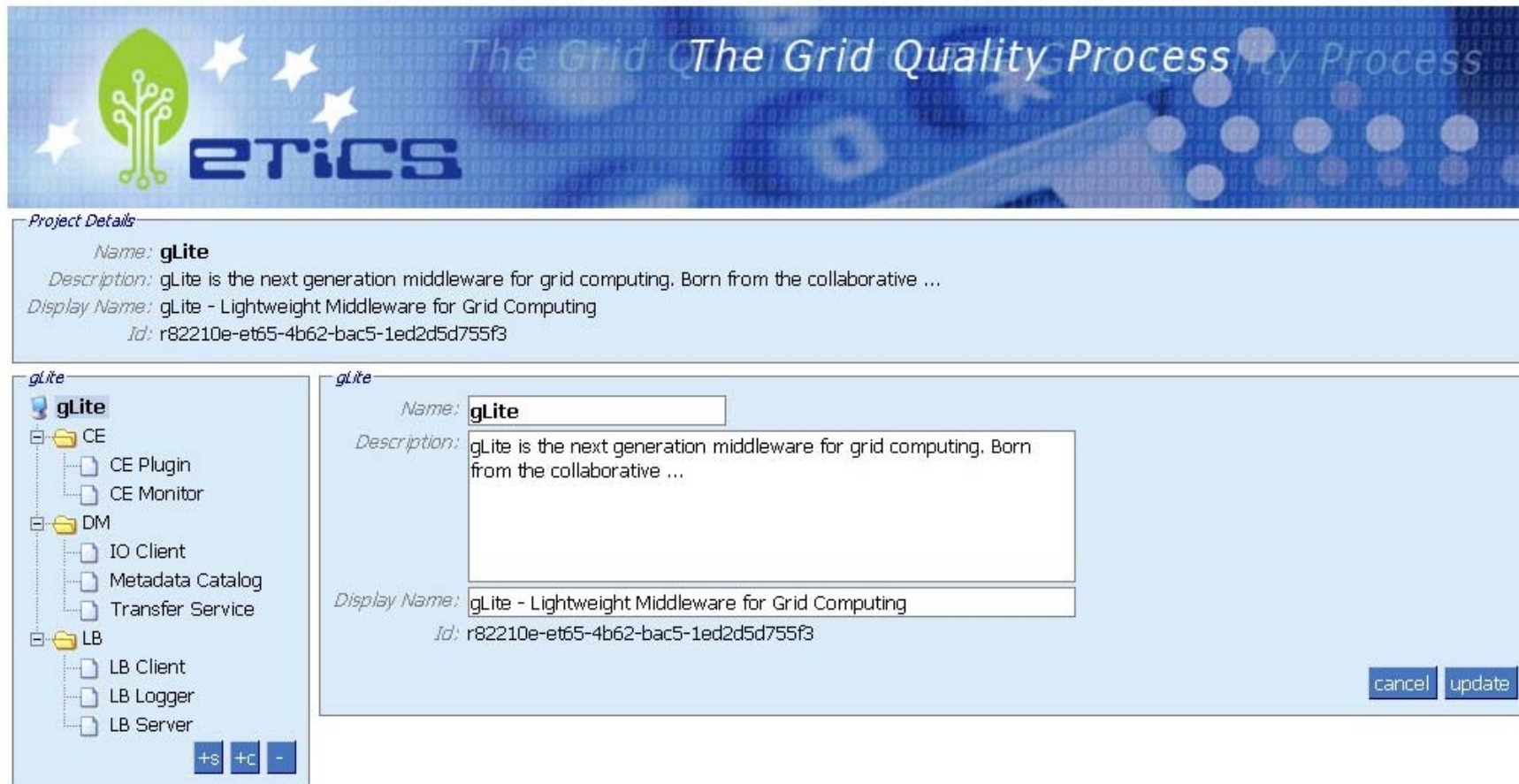




- It's the other major goal of the project
- ETICS must deliver a **feasibility study** for the implementation of a QA certification process for grid and distributed software
- Not just a document, but a **full assessment** of what procedures, tools and rules maximize the chances of project of delivering reliable, interoperable software based on the real data collected in two years of activity
- We will propose it as the starting point of a coordinated **QA Certification activity** in the context of a more permanent grid infrastructure initiative
- Will be done in close collaboration with the ETICS Experts Board to make sure it is practical and realistic



- **Web Application layout**



The screenshot displays the gLite web application interface. At the top, there is a banner with the ETICS logo and the text "The Grid Quality Process". Below the banner, the "Project Details" section shows the following information:

- Name:** gLite
- Description:** gLite is the next generation middleware for grid computing. Born from the collaborative ...
- Display Name:** gLite - Lightweight Middleware for Grid Computing
- Id:** r82210e-et65-4b62-bac5-1ed2d5d755f3

Below the project details, there is a tree view on the left showing the project structure:

- gLite
 - CE
 - CE Plugin
 - CE Monitor
 - DM
 - IO Client
 - Metadata Catalog
 - Transfer Service
 - LB
 - LB Client
 - LB Logger
 - LB Server


At the bottom of the tree view are buttons for "+s", "+c", and "-".

On the right side, there is a configuration form for the gLite project:

- Name:** gLite
- Description:** gLite is the next generation middleware for grid computing. Born from the collaborative ...
- Display Name:** gLite - Lightweight Middleware for Grid Computing
- Id:** r82210e-et65-4b62-bac5-1ed2d5d755f3

At the bottom right of the form are "cancel" and "update" buttons.

- Preliminary integration of the client with NMI









NMI Build & Test System

Tasks Statistics		
Total Tasks:	8	
Completed:	6	75.00%
Running:	0	0.00%
Queued:	2	25.00%
Failed:	0	0.00%

File Information	
Run Directory:	View
Archived:	Yes
Pinned Until:	-

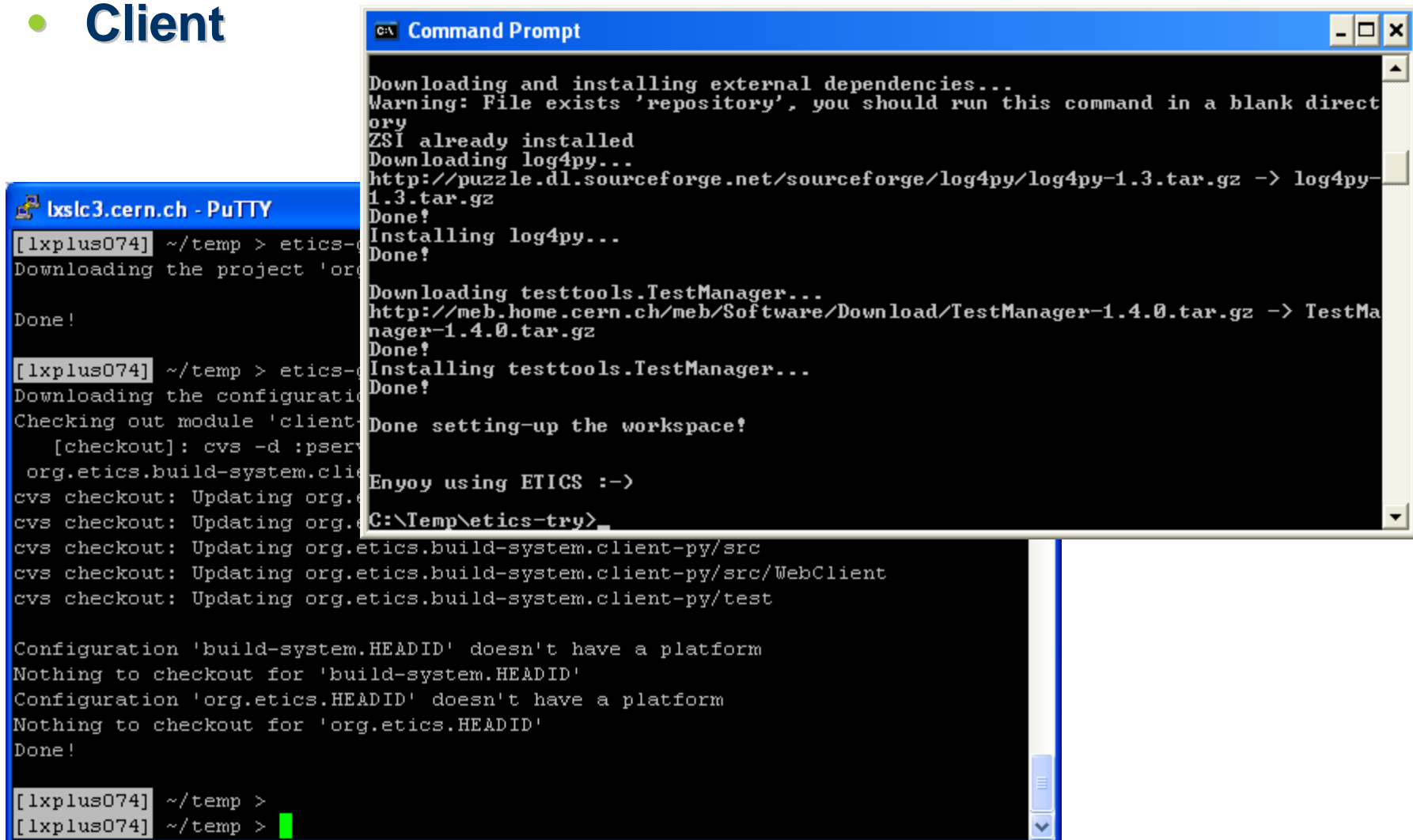
• Home > Runs Overview > Run Details

Run Details - Build and test of the org.etics project			
Run ID:	17628	GID:	meb_grandcentral...
User:	meb	Run Type:	BUILD
Project:	org.etics	Project Version:	alpha-1.0
Component:	org.etics	Component Version:	alpha-1.0
Start:	Jan-16-2006 21:08	Finish:	-
Submission Host:	grandcentral.cs.wisc.edu	Duration:	In Progress
Result:	Running		

Task Results						
ID	Result	Output	Platform	Name	Host	
1133318	Complete	 	x86_rh_9	remote_task	nmi-build17.cs.wisc.edu	Jk
1133268	Complete	 	ia64_slc_3	remote_task	nmi-ia64-1.cs.wisc.edu	Jk
1133266	Queued	- -	x86_winnt_5.1	platform_job		Jk
1133265	Queued	- -	x86_slc_3	platform_job		Jk
1133264	Complete	- -	ia64_slc_3	platform_job		Jk
1133263	Complete	- -	x86_rh_9	platform_job		Jk
1133257	Complete	 -	local	pre_all	grandcentral.cs.wisc.edu	Jk
1133256	Complete	 -	local	fetch.etics-workspace-...	grandcentral.cs.wisc.edu	Jk

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- Client



```

[~] bslc3.cern.ch - PuTTY
[~] [lxplus074] ~/temp > etics-
Downloading the project 'org
Done!

[~] [lxplus074] ~/temp > etics-
Downloading the configurati
Checking out module 'client
[checkout]: cvs -d :pser
org.etics.build-system.cli
cvs checkout: Updating org.
cvs checkout: Updating org.
cvs checkout: Updating org.etics.build-system.client-py/src
cvs checkout: Updating org.etics.build-system.client-py/src/WebClient
cvs checkout: Updating org.etics.build-system.client-py/test

Configuration 'build-system.HEADID' doesn't have a platform
Nothing to checkout for 'build-system.HEADID'
Configuration 'org.etics.HEADID' doesn't have a platform
Nothing to checkout for 'org.etics.HEADID'
Done!

[~] [lxplus074] ~/temp >
[~] [lxplus074] ~/temp >
  
```

```

C:\Temp\etics-try>
Downloading and installing external dependencies...
Warning: File exists 'repository', you should run this command in a blank direct
ory
ZSI already installed
Downloading log4py...
http://puzzle.dl.sourceforge.net/sourceforge/log4py/log4py-1.3.tar.gz -> log4py-
1.3.tar.gz
Done!
Installing log4py...
Done!

Downloading testtools.TestManager...
http://meh.home.cern.ch/meh/Software/Download/TestManager-1.4.0.tar.gz -> TestMa
nager-1.4.0.tar.gz
Done!
Installing testtools.TestManager...
Done!

Done setting-up the workspace!

Enjoy using ETICS :->
  
```

What is OMII-Europe?



- **EU funded FP6 project (RI)**
 - Starting May 2006, initial 2yr duration
 - 16 partners (8 European, 4 USA, 4 Chinese)
- **Open Middleware Infrastructure Institute for Europe**
 - Complementary to existing national programs (OMII-UK, NMI, C-OMEGA, OMII-China, ...)
- **Goal is to provide key software components for building e-infrastructures**

OMII-Europe



What will OMII-Europe do?



- **Initial focus on providing common interfaces and integration of major Grid software infrastructures**
- **Common interoperable services:**
 - Database Access, Virtual Organization Management, Portal, Accounting, Job Submission and Job monitoring
 - Capability to add additional services
- **Infrastructure integration**
 - Initial EGEE/UNICORE/Globus interoperability
 - Interoperable security framework
 - **Quality Assurance, benchmarking, software repository**

OMII-Europe



OMII-Europe guiding principles



- **Committed to standards process**
 - Implementing agreed open standards and working with standards process (GGF/Oasis)
- **Quality Assurance**
 - Published methodology and compliance tests
 - All software components have public QA process and audit trail
 - Working with similar projects and organizations to agree policies
- **Impartiality**
 - OMII-Europe is “honest broker” providing impartial advice/information on e-infrastructures

OMII-Europe



What will OMII-Europe Deliver?



- **Repository of open-source, Quality Assured software services for EGEE, Globus, UNICORE and CROWNgrid**
 - Some services bundled with major grid distributions
 - Initial integration work with EGEE, UNICORE and Globus
- **Public reports on grid infrastructures**
 - Initial benchmark results
 - Impartial advice and information
- **Evaluation infrastructure to “test” services**
 - User support and training for services

OMII-Europe



OMII-Europe project activities



Code	Activity	Partners	FTE
NA1	Management of I3	SOTON	3
NA2	Outreach and Inreach	SOTON, UEDIN	3
NA3	Training	UEDIN, BU, CNIC	4
SA1	Repository	INFN, SOTON, CERN, BU, CNIC	7
SA2	Quality Assurance	SOTON, CERN, UWM, UCHIC	13
SA3	Support	UEDIN, FZJ, TU, BU, SOTON, INFN	10
JRA1	Re-engineering of services	SOTON, UEDIN, FLE, INFN, FZJ, BU, UILL, TU, CNIC, PSNC, ICT, KTH	52
JRA2	Identification of missing services	INFN, UEDIN, KTH	1
JRA3	Infrastructure Integration	KTH, INFN, FZJ, TU, CNIC, BU	21
JRA4	Benchmarking	KTH, INFN, BU, CNIC	6

OMII-Europe Partners

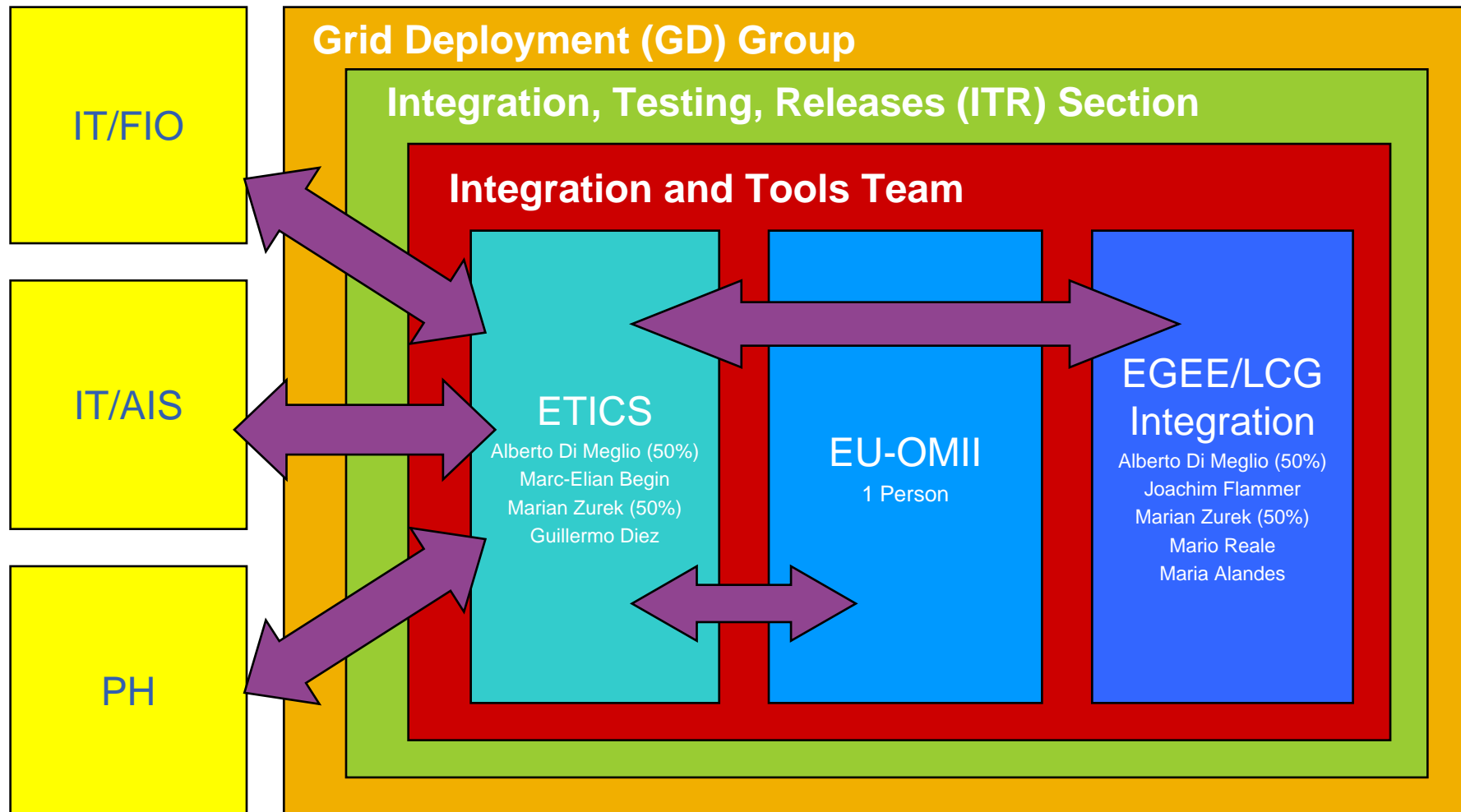


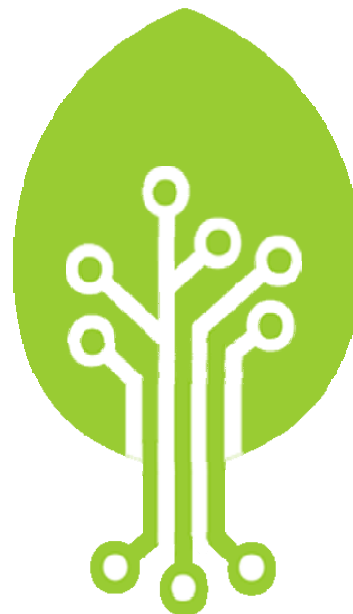
114 Person years over 2 years, 5M Euro, 4 major Grid infrastructures

University of Southampton, UK (coordinator)	University of Chicago, USA
Fujitsu Laboratories Europe, UK	NCSA, University of Illinois, USA
Forschungszentrum Juelich, Germany	University of Southern California, Los Angeles, USA
Kungl Tekniska Högskolan, Sweden	University of Wisconsin-Madison, USA
Istituto Nazionale di Fisica Nucleare, Italy	Beihang University, China
Poznan Supercomputing and Networking Center, Poland	China Institute of Computing Technology, Beijing, China
University of Edinburgh, UK	Computer Network Information Centre, Beijing, China
CERN, European Organisation for Nuclear Research, Switzerland	Tsinghua University, China



Relationships with IT Department and other CERN Departments





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