



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.

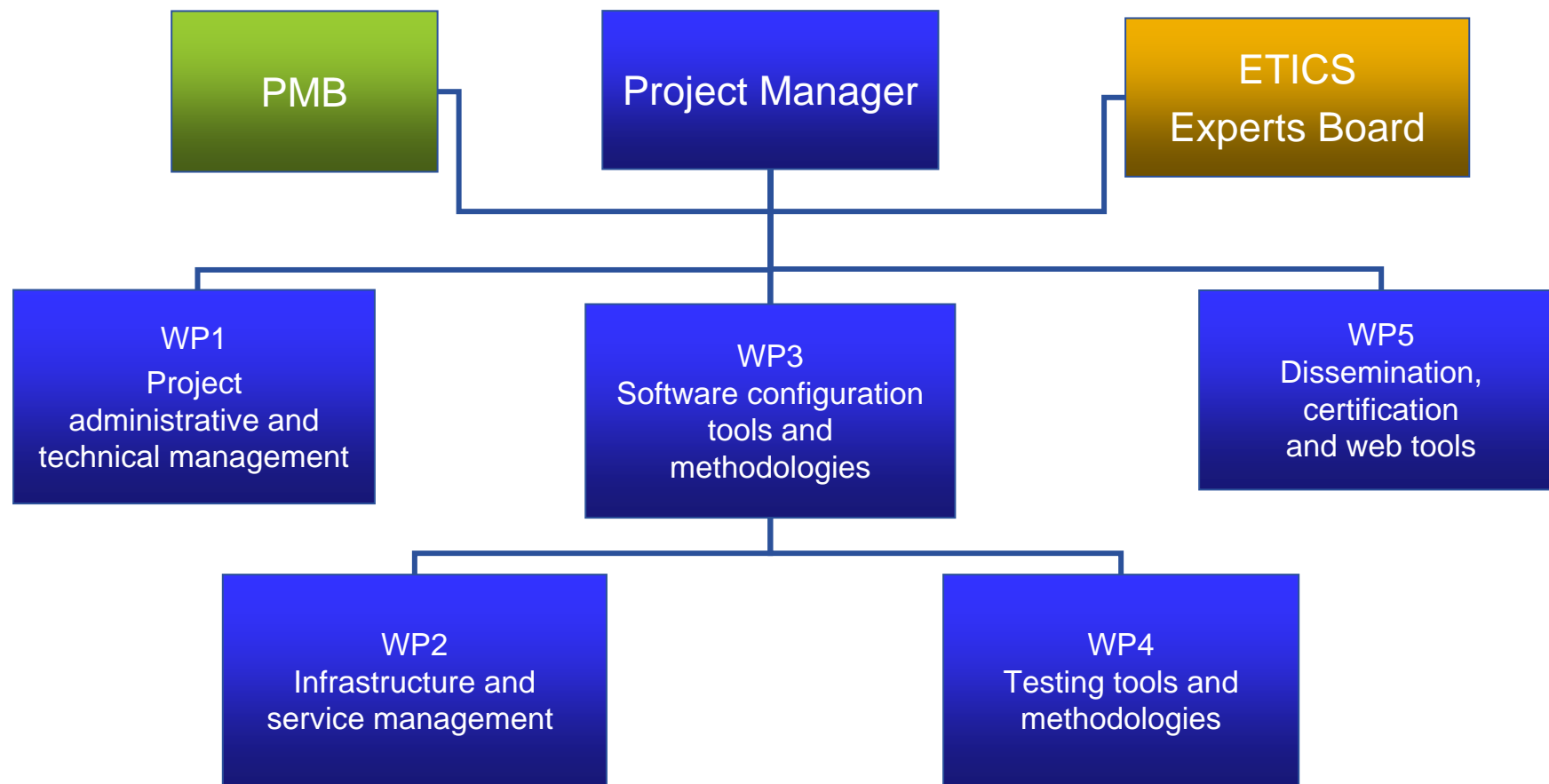
Software configuration, service infrastructure, dissemination

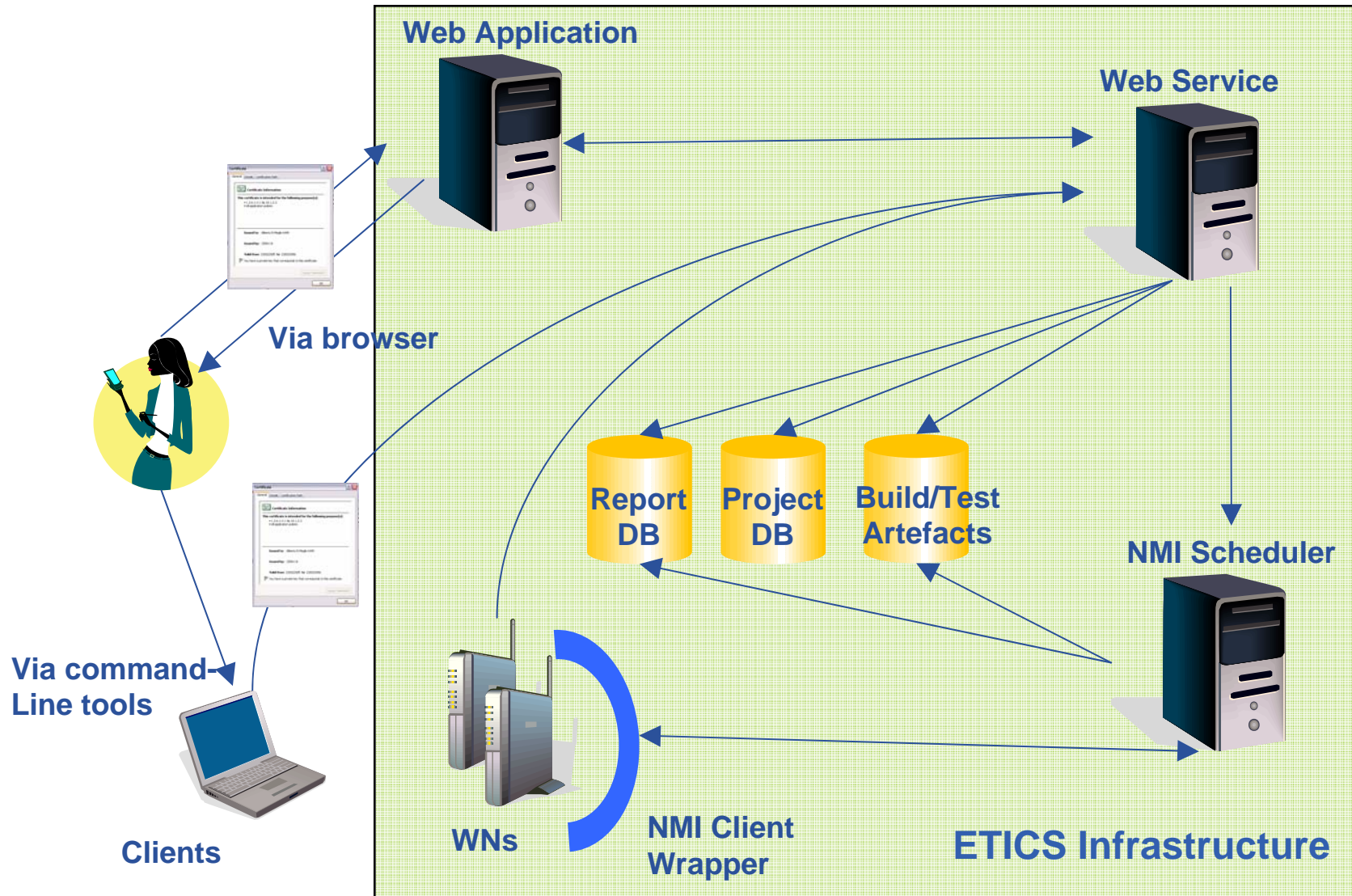
The Condor batch system, distributed testing tools, service infrastructure, NMI

Web portals and tools, quality process, dissemination, DILIGENT

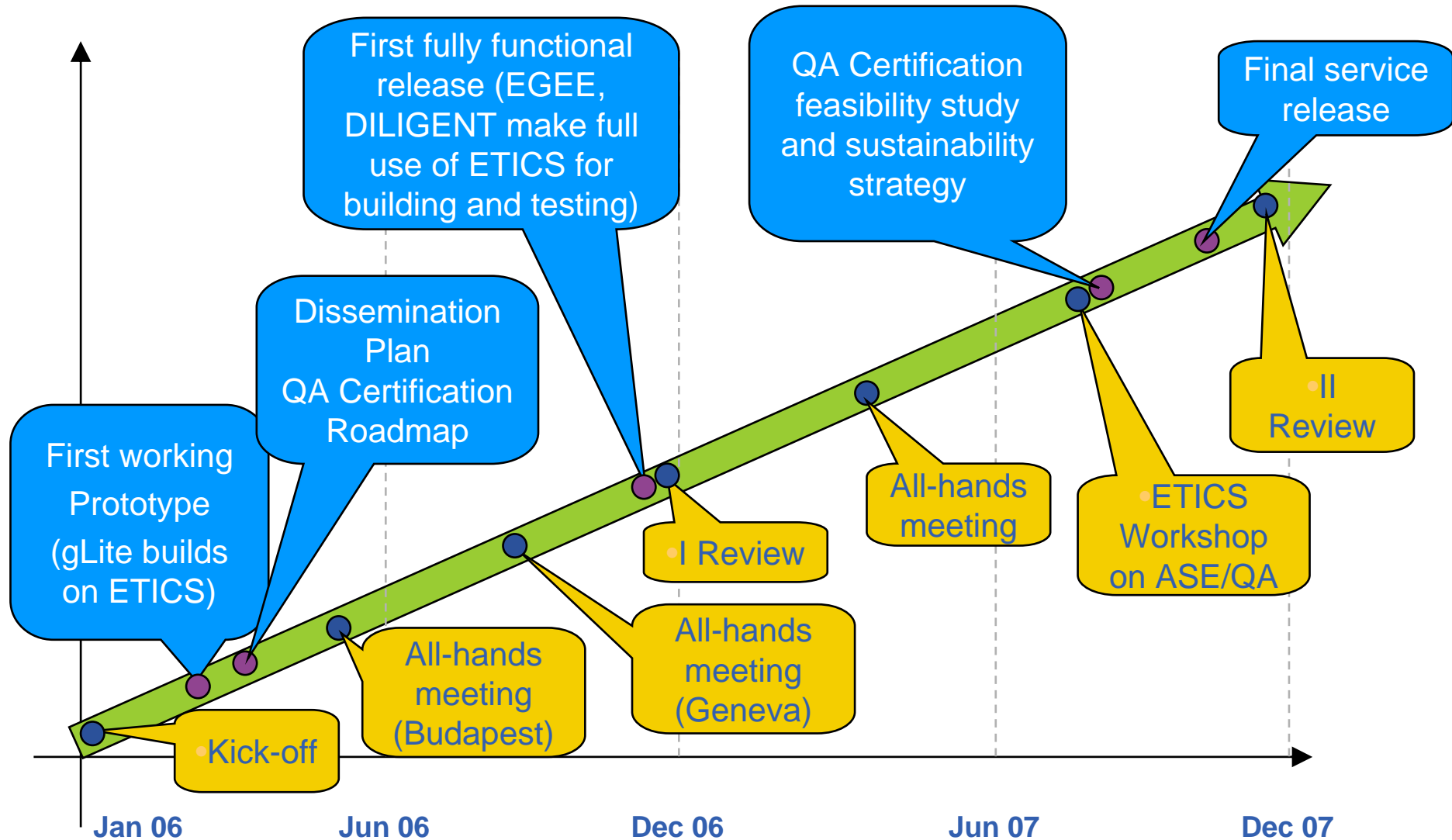
Test methods and metrics, unit testing tools, EBIT





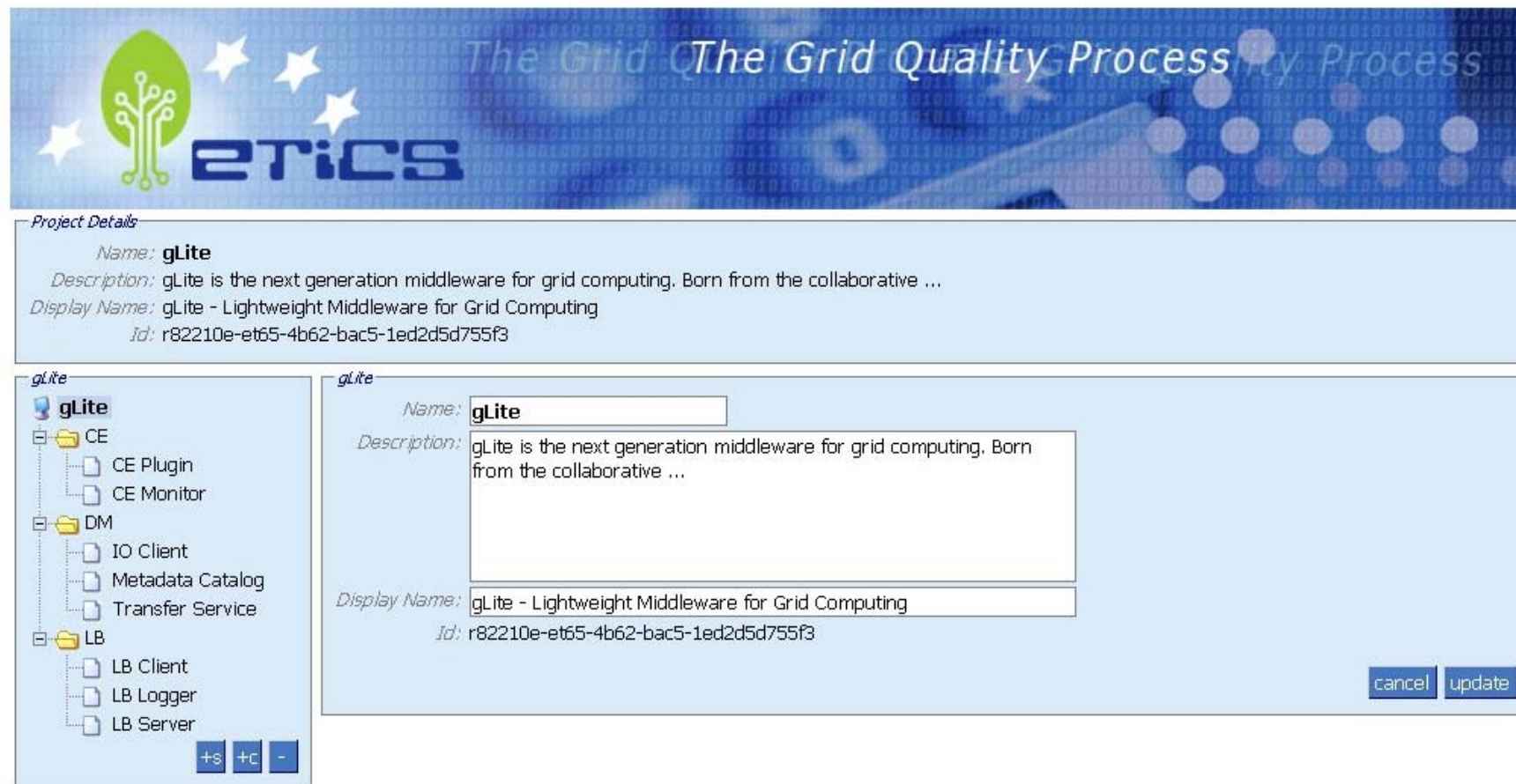


- It's the other major goal of the project
- ETICS must deliver a **feasibility study** for the implementation of a QA certification process for grid and distributed software
- Not just a document, but a **full assessment** of what procedures, tools and rules maximize the chances of project of delivering 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



- **EGEE VII** relies on **ETICS** to build and test gLite and other grid software. It is our major benchmark
- **DILIGENT** will standardize the integration and testing activities on **ETICS** via the common partner Engineering
- **EU-OMII** also has a strong focus on QA and testing. **ETICS** will provide the basic infrastructure and will benefit from their experience in this field
- **Globus, VDT** are already using **NMI** to build and test
- **GGF** may offer good opportunity to collaborate with other projects and produce standard guidelines and benchmarks
- Other projects have already expressed strong interest in using the **ETICS** services and will be give access to the system. A plan to assess how to accept new projects needs to be defined
- Collaborations with standards organizations (**ISO, IEEE**) are being planned as well as relations with networking and dissemination initiatives

- **Web Application layout**



The screenshot displays the gLite web application interface. At the top, there is a header with the ETICS logo and the text "The Grid Quality Process". Below the header, 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

On the left side, there is a file tree structure for the gLite project:

- 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 file tree are buttons for "+s", "+c", and "-".

On the right side, there is a form for editing the project details:

- 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:	-

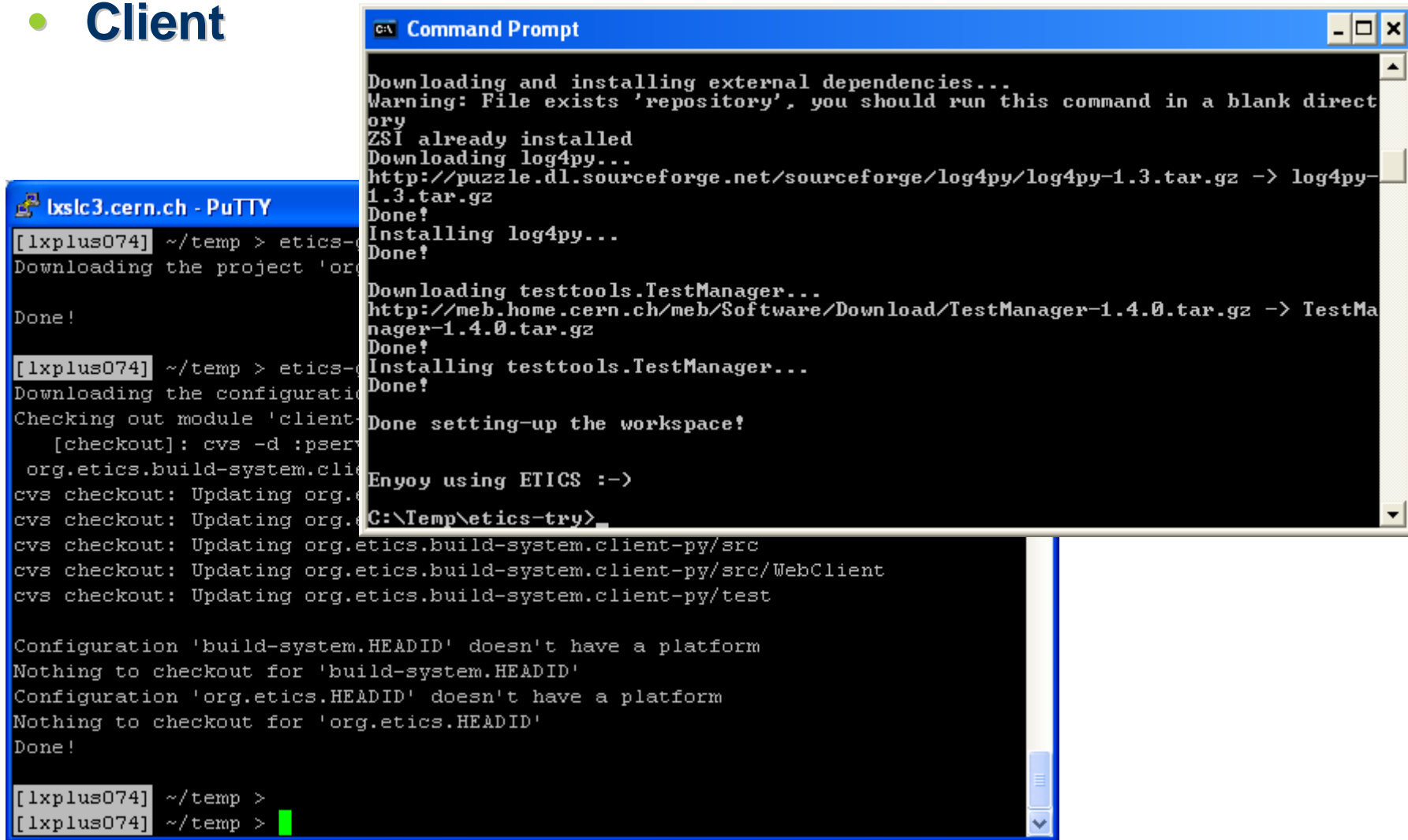
• Home > Runs Overview > Run Details

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



```

[lxplus074] ~/temp > etics-
Downloading the project 'org.etics.build-system.client-py'
Done!

[lxplus074] ~/temp > etics-
Downloading the configuration
Checking out module 'client-py'
[checkout]: cvs -d :pserver:
org.etics.build-system.client-py
cvs checkout: Updating org.etics.build-system.client-py
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:\> Command Prompt
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 :->

C:\Temp\etics-try>
  
```

- **The ETICS Service is targeting the Research community implementing Grid and distributed software**
- **Advantages**
 - **To reduce the cost** of an in-house Integration and build infrastructure, **using a shared multi-platform environment** to build and test applications
 - **To improve the overall quality** of software **gathering a rich set of indicators** from each build and test session, as well as trends over time
 - **To extend the control of dependencies** including underlying grid middleware.
- **Requirements**
 - To model software modules using ETICS guidelines
 - Contribute with Computational resources (public or private)
 - ETICS builds on Grid resources