



Enabling Grids for E-science

The GILDA t-Infrastructure

Tony Calanducci

INFN Catania

*ICTP/INFN-Democritos Workshop on Porting
Scientific Applications on Computational GRIDs*

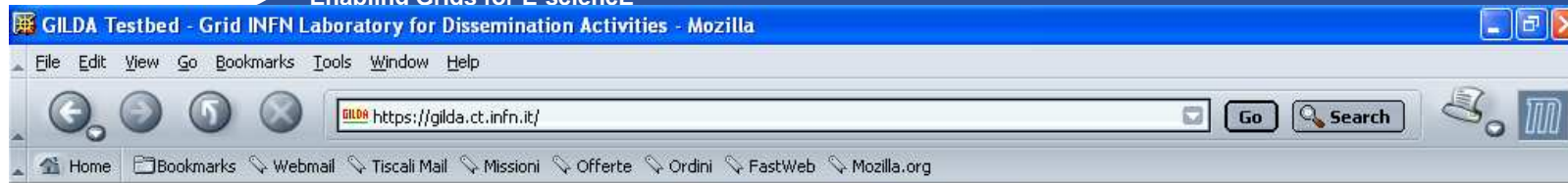
Trieste, 06-17 February 2006

www.eu-egee.org



- **Motivation**
- **The GILDA t-Infrastructure**
 - services
 - tools
 - applications
- **Summary and conclusions**

- **Why t-infrastructure?**
 - e-Infrastructure for production
 - t-Infrastructure for training
- **Need guaranteed response for tutorials; limit the vulnerability of production systems**
 - use training grid
 - have training CA
 - able to change middleware to prepare participants for future releases on production system
- **Also:**
 - need safe resources for installation training
 - easy entry point for new communities




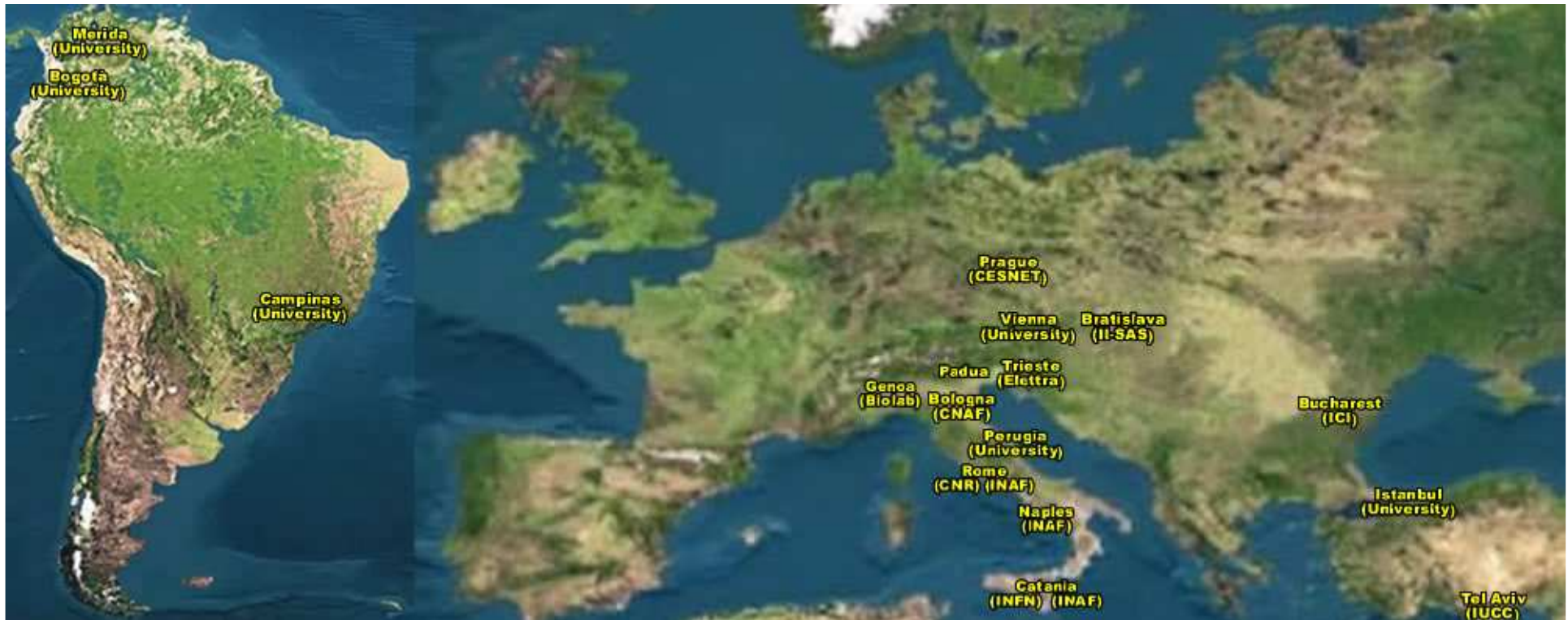
GILDA (G rid I nfn L aboratory for D issemination A ctivities)

is a virtual laboratory to demonstrate/disseminate the strong capabilities of grid computing.

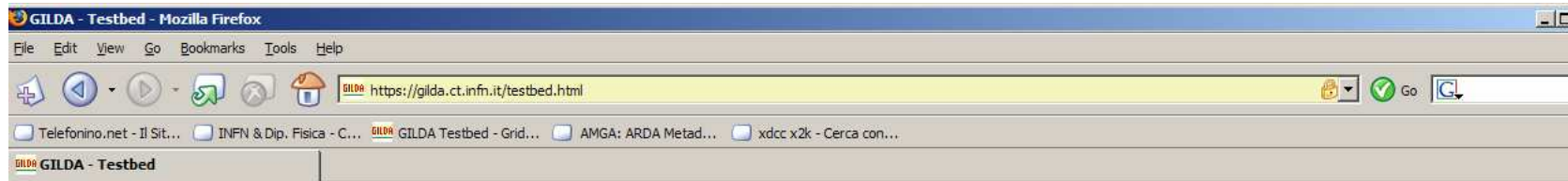
GILDA consists of the following elements:

- Grid tutorials
- GILDA Poster
- Video tutorials
- Live User Interface
- User Interface PnP 
- Instructions for users
- Instructions for sites
- Useful links
- Sponsors
- Usage Statistics
- Old Usage Statistics

- **the GILDA Testbed:** a series of sites and services (Resource Broker, Information Index, Data Managers, monitoring tool, Computing Elements, and Storage Elements) spread all over Italy and the rest of the world on which the latest version of both the INFN Grid middle-ware (fully compatible with LCG middle-ware) and the gLite  middle-ware are installed;
- the Grid Demonstrator: a customized version of the full GENIUS web portal, jointly developed by INFN and NICE, from where **everybody** can submit a pre-defined set of applications to the GILDA Testbed;
- **the GILDA Certification Authority:** a fully functional Certification Authority which issues 14-days X.509 certificates to everybody wanting to experience grid computing on the GILDA Testbed;
- **the GILDA Virtual Organization:** a Virtual Organization gathering all people wanting to experience grid computing on the GILDA Testbed; GILDA also runs the Virtual Organization Membership Service (VOMS) developed by INFN;
- the Grid Tutor: based on a full version of the GENIUS web portal, to be used only during grid tutorials;
- the monitoring system: a versatile monitoring system completely based on GridICE, the grid monitoring tool developed by INFN;
- the GILDA mailing list: gilda@infn.it, also archived on the web here.



19 sites in 3 continents !



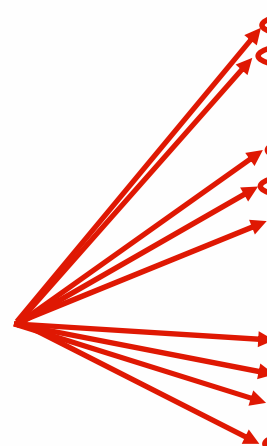
Grid services

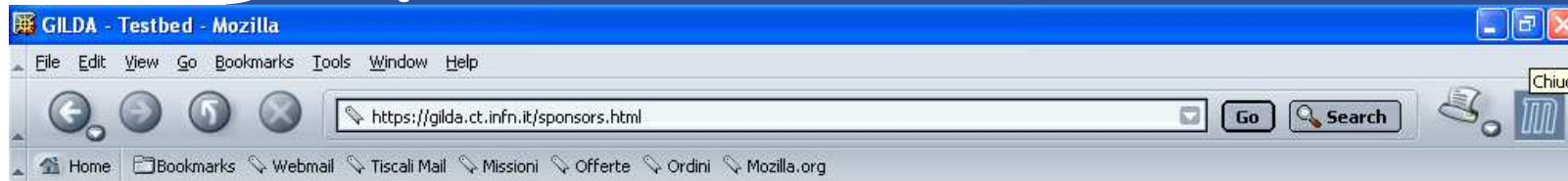
This is a table of the general Grid Services available on GILDA.

| SERVICE | HOST |
|---------------------------------------|--|
| LCG-2 Resource Broker (RB) | grid004.ct.infn.it |
| LCG-2 Resource Broker (RB) | grid013.ct.infn.it |
| LCG-2 Resource Broker (RB) | skurut2.cesnet.cz |
| LCG-2 Resource Broker (RB) | rb.be.itu.edu.tr |
| gLite Resource Broker (RB) | gite-rb.ct.infn.it |
| gLite Resource Broker (RB) | gite-rb2.ct.infn.it |
| Information Index (BDII) | grid004.ct.infn.it |
| Backup Information Index (BDII) | grid013.ct.infn.it |
| GILDA VOMS server | voms.ct.infn.it:8443/voms/gilda |
| GILDA gLite DGAS Price Authority | grid-demo1.ct.infn.it:56568 |
| GILDA gLite DGAS HLR | grid-demo1.ct.infn.it:56567 |
| GridICE Monitoring System | alifarm7.ct.infn.it:50080 |
| LCG-2 File Catalog (LFC) | lfc-gilda.ct.infn.it |
| Backup LCG-2 File Catalog (LFC) | lfc-gilda.cern.ch |
| gLite FiReMan Catalog | grid017.ct.infn.it |
| gLite File Transfer/Placement Service | fts.ct.infn.it:8443 |
| AMGA Metadata Catalog | amga.ct.infn.it:8822 |
| gLite R-GMA server | rmasrv.ct.infn.it:8443 |
| MyProxy Server | grid001.ct.infn.it |
| Backup MyProxy Server | grid014.ct.infn.it |

- Grid tutorials
- GILDA Poster
- Video tutorials
- Live User Interface 
- User Interface PnP
- Instructions for users
- Instructions for sites 
- Useful links
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- Usage Statistics
- Old Usage Statistics

gLite Services





GILDA is sponsored by:





The GILDA Certification Authority

GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

- **General information**
- **GILDA CA certificate**
- **Request a personal certificate**
- **Request an account**
- **Request a host certificate**
- **Renew a certificate**
- **Check a personal certificate**
- **Certificate Revocation List**

The **GILDA Certification Authority** (GILDA CA) issues temporary (two weeks) personal public key certificates (compliant with the X.509 standard) in order to access the GILDA Testbed.

Absolutely no identity check is going to be performed on the requester, so the personal certificates issued by the GILDA CA have absolutely no value on any real production Grid Infrastructure.

The **GILDA Certification Authority** is managed by:

Giuseppe Platania
INFN Catania
Via S. Sofia, 64
I-95123 Catania
ITALY

e-mail: gilda-ca@ct.infn.it
Tel: +39 095 378 5469
Fax: +39 095 378 5231

In order to inspect the GILDA CA certificate and/or save it in your web browser (necessary to validate your personal certificate) click on **GILDA CA certificate** in the left part of this page.

In order to request a certificate, click on **Request a personal certificate** in the left part of this page.

If you already have a trusted personal certificate, click on **Request an account**, in the left part of this page, to request an account. Your personal certificate must be included in your browser before doing this.

In order to request a host certificate, click on **Request a host certificate** in the left part of this page.



The GILDA Certification Authority

Enabling Grids for E-science

Request a GILDA CA personal certificate - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://gilda.ct.infn.it/CA/mgt/restricted/ucert.php

Home Bookmarks mozilla.org mozillaZine mozdev.org

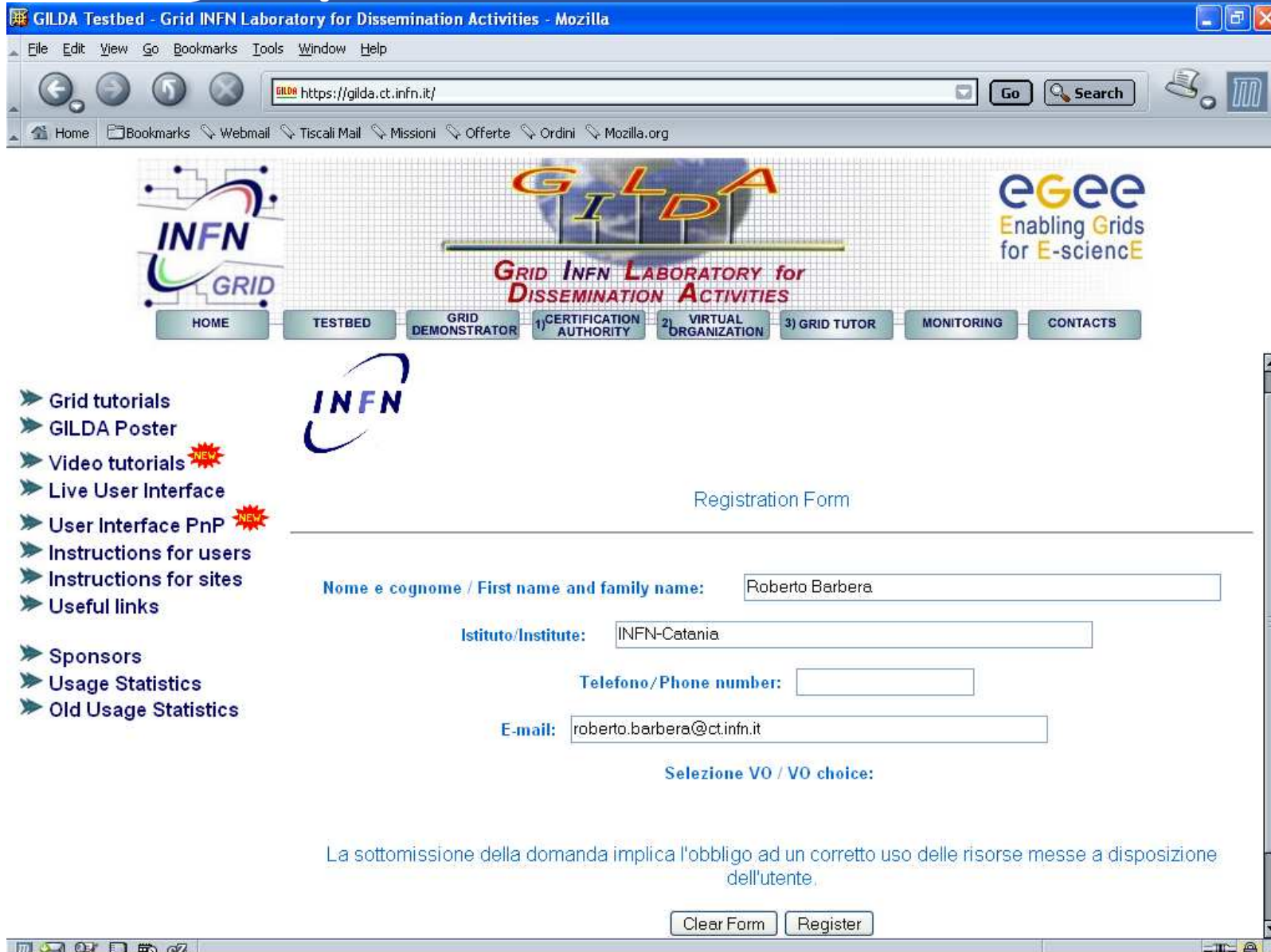
- Request an account
- Request a host certificate
- Check a personal certificate
- Certificate Revocation List

In order to correctly generate a request it is mandatory to fill **all** fields in the form below. Please, double check the correctness of the e-mail address that you are going to provide since **no verification** will be performed by the server.

The password you are prompted about in the form below is the password of your personal account on the **GENIUS Portal** from where you will access the GILDA Testbed and it is **NOT** the passphrase of your personal certificate.

When the certificate will be signed by the GILDA CA manager you will be notified by e-mail with the instructions to download your GILDA CA personal certificate and access the GILDA Testbed.

| | |
|---|--|
| Institute/University/Company: | <input type="text"/> |
| First name and last name: | <input type="text"/> |
| Account username (max 8 characters; only not-accented letters and digits are allowed, both lowercase and uppercase): | <input type="text"/> |
| Account password (only not-accented letters and digits are allowed, both lowercase and uppercase): | <input type="password"/> |
| Confirm account password (only not-accented letters and digits are allowed, both lowercase and uppercase): | <input type="password"/> |
| E-mail: | <input type="text"/> |
| KeySize: | 2048 (High Grade) <input type="button" value="v"/> |



GILDA Testbed - Grid INFN Laboratory for Dissemination Activities - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://gilda.ct.infn.it/ Go Search

Home Bookmarks Webmail Tiscali Mail Missioni Offerte Ordini Mozilla.org

INFN GRID

GILDA

GRID INFN LABORATORY for DISSEMINATION ACTIVITIES

eGEE Enabling Grids for E-science

HOME TESTBED GRID DEMONSTRATOR 1) CERTIFICATION AUTHORITY 2) VIRTUAL ORGANIZATION 3) GRID TUTOR MONITORING CONTACTS

INFN

Registration Form

Nome e cognome / First name and family name:

Istituto/Institute:

Telefono/Phone number:

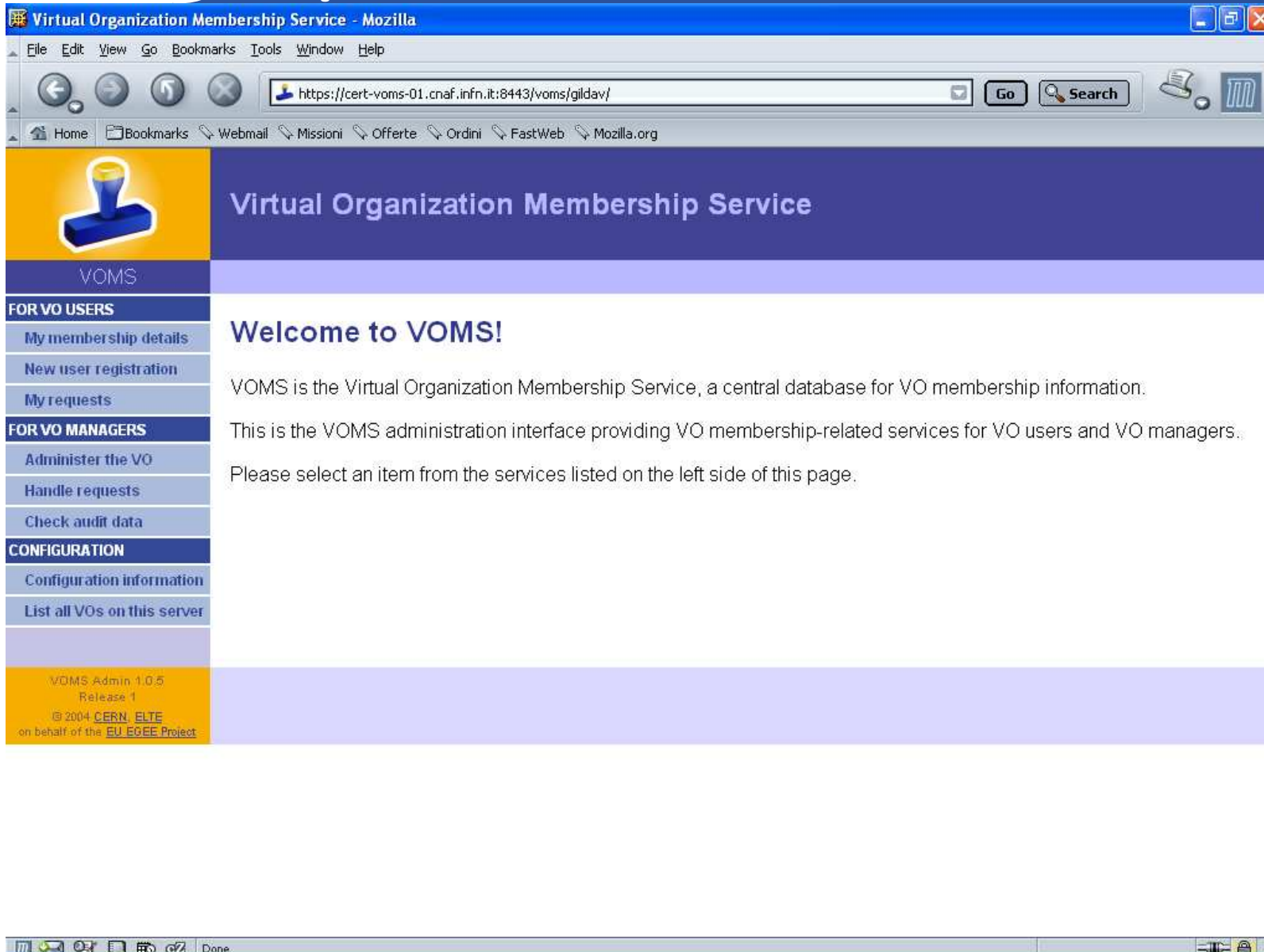
E-mail:

Selezione VO / VO choice:

La sottomissione della domanda implica l'obbligo ad un corretto uso delle risorse messe a disposizione dell'utente.

Clear Form Register

- Grid tutorials
- GILDA Poster
- Video tutorials **NEW**
- Live User Interface
- User Interface PnP **NEW**
- Instructions for users
- Instructions for sites
- Useful links
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Virtual Organization Membership Service

VOMS

FOR VO USERS

- My membership details
- New user registration
- My requests

FOR VO MANAGERS

- Administer the VO
- Handle requests
- Check audit data

CONFIGURATION

- Configuration information
- List all VOs on this server

Welcome to VOMS!

VOMS is the Virtual Organization Membership Service, a central database for VO membership information.

This is the VOMS administration interface providing VO membership-related services for VO users and VO managers.

Please select an item from the services listed on the left side of this page.

VOMS Admin 1.0.5
Release 1
© 2004 CERN, ELTE
on behalf of the EU-EGEE Project



Enabling Grids for E-science

The GILDA Monitoring System (http://alifarm7.ct.infn.it:50080/gridice)

GILDA - GridICE - Grid Monitoring Service - Mozilla

http://alifarm7.ct.infn.it:50080/gridice/site.php

GridICE
the eyes of the Grid

Site view VO view Job Monitoring Geo view Gris view

Site view::ALL >> Summary

Computing Resources

| Site | GK# | CE# | RunJob | WaitJob | JobLoad | SlotLoad | Power | WN# | CPU# | CPULoad | Available |
|---------------|-----------|-----------|----------|-----------|------------|------------|------------|-----------|-----------|------------|---------------|
| be.itu.edu.tr | 1 | 3 | 3 | 0 | 100% | 100% | - | - | - | - | 139.2 Gb |
| cesnet.cz | 1 | 1 | 0 | 0 | - | - | - | - | - | - | 3 Tb |
| cnaf.infn.it | 1 | 4 | 0 | 1 | 0% | 0% | 6K | 1 | 2 | 0% | 13.4 Gb |
| ct.astro.it | 1 | 4 | 0 | 17 | 0% | 0% | 4K | 1 | 1 | 0% | 104.5 Gb |
| ct.infn.it | 2 | 7 | 0 | 0 | 0% | 0% | - | - | - | - | 1.4 Tb |
| grid.unipg.it | 1 | 3 | 0 | 0 | 0% | 0% | 20K | 8 | 10 | 3% | 7.3 Gb |
| na.astro.it | 1 | 4 | 0 | 0 | 0% | 0% | - | - | - | - | 213.8 Gb |
| pd.infn.it | 1 | 4 | 2 | 6 | 20% | 0% | 8K | 2 | 4 | 5% | 498.6 Gb |
| ui.savba.sk | 1 | 4 | 0 | 0 | 0% | 0% | 19K | 4 | 4 | 0% | 68.5 Gb |
| TOTAL | 10 | 34 | 5 | 24 | 15% | 12% | 56K | 16 | 21 | 16% | 5.4 Tb |

Generated: Fri, 6 May 2005 12:28:49 +0200

GILDA - GridICE - Grid Monitoring Service - Mozilla

http://alifarm7.ct.infn.it:50080/gridice/vo_details.php?voName=gilda&visi

Site view VO view Job Monitoring Geo view Gris view

VO view::gilda >> Core Services >> Computing Resources

Computing Resources Storage Resources

Computing Element ID

| Computing Element ID | Site | Free Slots | Total Slots |
|--|---------------|------------|-------------|
| cn01.be.itu.edu.tr:2119/jobmanager-lcglsf-infinite | be.itu.edu.tr | 0 | 2 |
| cn01.be.itu.edu.tr:2119/jobmanager-lcglsf-long | be.itu.edu.tr | 0 | 2 |
| cn01.be.itu.edu.tr:2119/jobmanager-lcglsf-short | be.itu.edu.tr | 0 | 2 |
| skurut1.cesnet.cz:2119/jobmanager-lcgpbs-gilda | cesnet.cz | 0 | 0 |
| grid011f.cnaf.infn.it:2119/jobmanager-lcgpbs-cert | cnaf.infn.it | 2 | 2 |
| grid011f.cnaf.infn.it:2119/jobmanager-lcgpbs-infinite | cnaf.infn.it | 2 | 2 |
| grid011f.cnaf.infn.it:2119/jobmanager-lcgpbs-long | cnaf.infn.it | 2 | 2 |
| grid011f.cnaf.infn.it:2119/jobmanager-lcgpbs-short | cnaf.infn.it | 2 | 2 |
| gildace.ct.astro.it:2119/jobmanager-lcgpbs-infinite | ct.astro.it | 1 | 1 |
| gildace.ct.astro.it:2119/jobmanager-lcgpbs-long | ct.astro.it | 1 | 1 |
| gildace.ct.astro.it:2119/jobmanager-lcgpbs-short | ct.astro.it | 1 | 1 |
| ce-test.ct.infn.it:2119/jobmanager-lcglsf-infinite | ct.infn.it | 8 | 8 |
| ce-test.ct.infn.it:2119/jobmanager-lcglsf-long | ct.infn.it | 8 | 8 |
| ce-test.ct.infn.it:2119/jobmanager-lcglsf-short | ct.infn.it | 8 | 8 |
| grid010.ct.infn.it:2119/jobmanager-lcgpbs-infinite | ct.infn.it | 19 | 19 |
| grid010.ct.infn.it:2119/jobmanager-lcgpbs-long | ct.infn.it | 19 | 19 |
| grid010.ct.infn.it:2119/jobmanager-lcgpbs-short | ct.infn.it | 19 | 19 |
| ce.grid.unipg.it:2119/jobmanager-lcgpbs-infinite | grid.unipg.it | 16 | 16 |
| ce.grid.unipg.it:2119/jobmanager-lcgpbs-long | grid.unipg.it | 16 | 16 |
| ce.grid.unipg.it:2119/jobmanager-lcgpbs-short | grid.unipg.it | 16 | 16 |
| grid4.na.astro.it:2119/jobmanager-lcgpbs-cert | na.astro.it | 7 | 7 |
| grid4.na.astro.it:2119/jobmanager-lcgpbs-infinite | na.astro.it | 7 | 7 |
| grid4.na.astro.it:2119/jobmanager-lcgpbs-long | na.astro.it | 7 | 7 |
| grid4.na.astro.it:2119/jobmanager-lcgpbs-short | na.astro.it | 7 | 7 |
| gilda-ce-01.pd.infn.it:2119/jobmanager-lcgpbs-infinite | pd.infn.it | 2 | 2 |

Generated: Fri, 6 May 2005 12:49:01 +0200

GridICE Homepage

Storage Resources

| Storage Element ID | Storage Space ID | Site | Free Space | Used Space |
|-------------------------|------------------|---------------|------------|------------|
| cn02.be.itu.edu.tr | gilda:gilda | be.itu.edu.tr | 139.22 Gb | 32 Mb |
| testbed005.cnaf.infn.it | gilda:gilda | cnaf.infn.it | 13.44 Gb | 1.89 Gb |
| gildase.ct.astro.it | gilda:gilda | ct.astro.it | 104.54 Gb | 1.92 Gb |
| grid009.ct.infn.it | gilda:gilda | ct.infn.it | 1.38 Tb | 638.26 Gb |
| alifarm12.ct.infn.it | gilda:gilda | ct.infn.it | 22.19 Gb | 2.68 Gb |
| se.grid.unipg.it | gilda:gilda | grid.unipg.it | 7.33 Gb | 1.79 Gb |
| grid3.na.astro.it | gilda:gilda | na.astro.it | 213.79 Gb | 3.23 Gb |
| gilda-se-01.pd.infn.it | gilda:gilda | pd.infn.it | 498.59 Gb | 727 Mb |
| dgt02.ui.savba.sk | gilda:gilda | ui.savba.sk | 68.54 Gb | 145 Mb |

Generated: Fri, 6 May 2005 12:49:01 +0200



The Grid Tutor

(<https://grid-tutor.ct.infn.it>, <https://glite-tutor.ct.infn.it>)

Enabling Grids for E-science

Welcome to the GENIUS INFN GRID Portal - Mozilla

File Edit View Go Bookmarks Tools Window Help

https://grid-tutor.ct.infn.it

Home Bookmarks Webmail Tiscall Mail Missioni Offerte Ordini FastWeb Mozilla.org

enginframe

genius

eGEE
Enabling Grids
for E-science

Grid Enabled web eNvironment for site Independent User job Submission

Welcome to GENIUS

[Important Notice](#)
[GENIUS User's Guide \(pdf\)](#)
[New Grid Authentication with MyProxy](#)
[GENIUS MyProxy Server Installation](#)
[GENIUS CVS Available](#)
[GENIUS Mailing List](#)
[GENIUS Mailing Archive \(Help on Majordomo Commands\)](#)
[GRID MOVIE](#)
[Useful Links](#)
[Credits](#)

This portal is best viewed with Mozilla 1.6.
 Netscape (4.79, 4.80, 6 and higher) and Internet Explorer (5 or higher) can also be used.
 The use of any other web browsers could induce some visualization mismatches and is not currently suggested.
 GENIUS is based on Apache 1.3.31 and OpenSSL 0.9.7d.
 Last update: Tue 12 April 2005

powered by
[EnginFrame 3.2](#)
 compliant with
[LCG-2 GRID.IT](#)
[gLite-1](#)

File Services
 Security Services
 Job Services
 Data Services
 Info Services
 Monitoring Services
 Interactive Services
 Grid Settings
 Set VO/VOMS
 Current VO Services
 Statistics
 Logout

powered by
[EnginFrame 3.2](#)
 compliant with
[LCG-2 GRID.IT](#)
[gLite-1](#)

Current VO Services
 Statistics
 Logout

fn.it/

Offerte Ordini FastWeb Mozilla.org

enginframe

genius

eGEE
Enabling Grids
for E-science

Grid Enabled web eNvironment for site Independent User job Submission

Welcome to GENIUS based on

[Important Notice](#)
[GENIUS User's Guide \(pdf\)](#)
[New Grid Authentication with MyProxy](#)
[GENIUS MyProxy Server Installation](#)
[GENIUS CVS Available](#)
[GENIUS Mailing List](#)
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The Grid Demonstrator (1/2)

(<https://grid-demo.ct.infn.it>, <https://glite-demo.ct.infn.it>)

Enabling Grids for E-science

File Edit View Go Bookmarks Tools Window Help

https://grid-demo.ct.infn.it/

Home Bookmarks mozilla.org mozillaZine mozdev.org

INFN
Istituto Nazionale di Fisica Nucleare

enginframe

genius

eGEE
Enabling Grids for E-science in Europe

Grid Enabled web eNvironment for site Independent User job Submission

Welcome to the **GILDA Grid Demonstrator powered by GENIUS**

GILDA Grid Demonstrator User's Guide ([html](#), [pdf](#))
[Credits](#)

This portal is best viewed with Mozilla 1.6.
Netscape (4.79, 4.80, 6 and higher) and Internet Explorer (5 or higher) can also be used.
The use of any other web browsers could induce some visualization mismatches and is not currently suggested.
Last update: **Fri 3 Sep 2004**

powered by [EnginFrame 3.2](#)
compliant with [LCG-2](#)
[GRID.IT](#)

VO Services

Demonstrator Applications

infno.it/

Offerte Ordini FastWeb Mozilla.org

enginframe

genius

eGEE
Enabling Grids for E-science

Grid Enabled web eNvironment for site Independent User job Submission

Welcome to the **GILDA Grid Demonstrator powered by GENIUS based on GLite**

GILDA Grid Demonstrator User's Guide ([html](#), [pdf](#))
[Credits](#)

This portal is best viewed with Mozilla 1.6.
Netscape (4.79, 4.80, 6 and higher) and Internet Explorer (5 or higher) can also be used.
The use of any other web browsers could induce some visualization mismatches and is not currently suggested.
Last update: **Fri 24 May 2005**

```

alipc5.ct.infn.it - barbera@alipc5* - SSH Secure Shell
File Edit View Window Help
[barbera@glite-tutor:~]$ dgas-check-ce-price grid010.ct.infn.it:2119/jobmanager-
lcgpbs-short

Price Authority queried at: Fri Oct 21 11:40:55 CEST 2005
Computing Element: grid010.ct.infn.it:2119/jobmanager-lcgpbs-short
Price (credits for 100 CPU secs): 170

[barbera@glite-tutor:~]$
[barbera@glite-tutor:~]$
[barbera@glite-tutor:~]$
[barbera@glite-tutor:~]$ dgas-check-balance

User: Roberto Barbera
E-mail: roberto.barbera@ct.infn.it
Subject: /C=IT/O=INFN/OU=Personal Certificate/L=Catania/CN=Roberto Barbera/Email
=roberto.barbera@ct.infn.it
Assigned credits (0=infinite): 0
Booked credits: 0
Used credits: 17
Used wall clock time (sec): 377
Used CPU time (sec): 24
Accounted jobs: 4

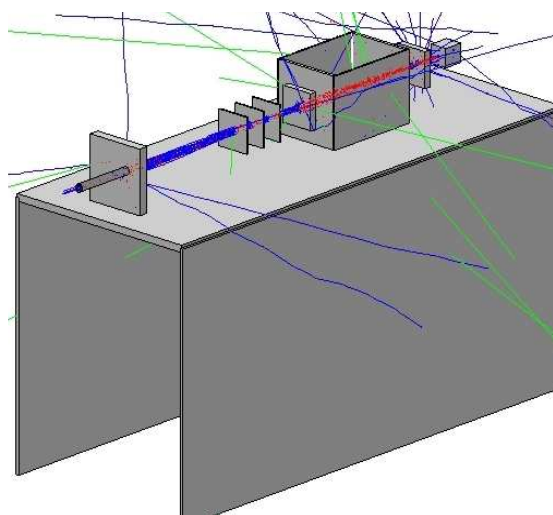
[barbera@glite-tutor:~]$

```

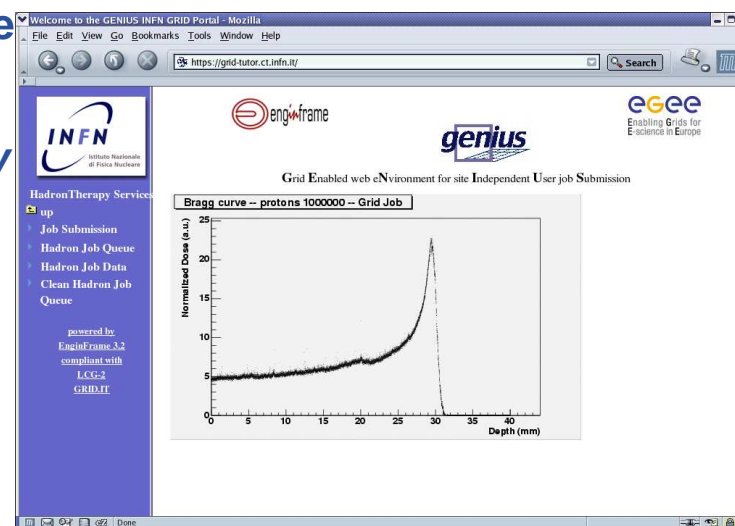
CATANA beam line in reality



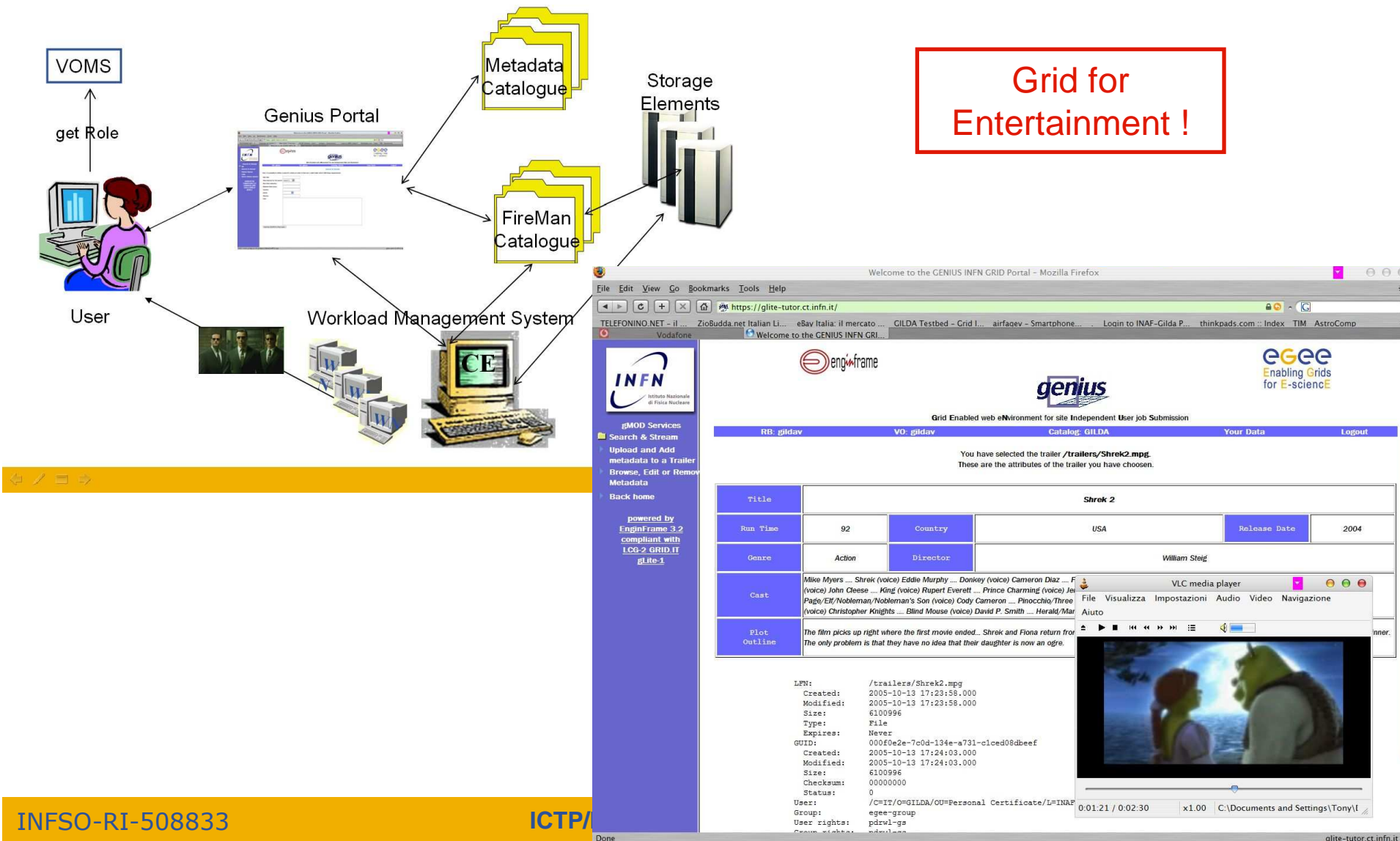
hadronTherapy in GENIUS

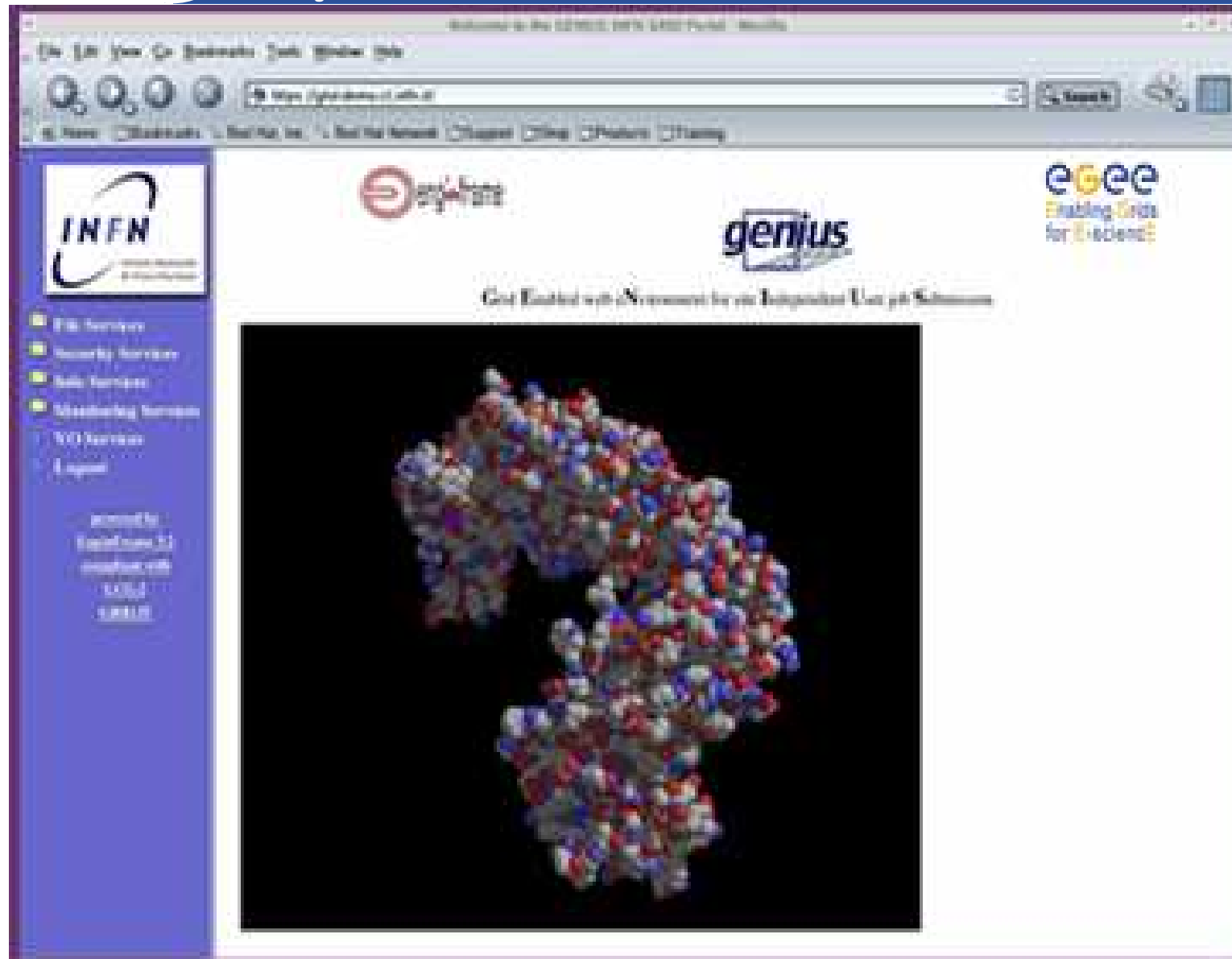


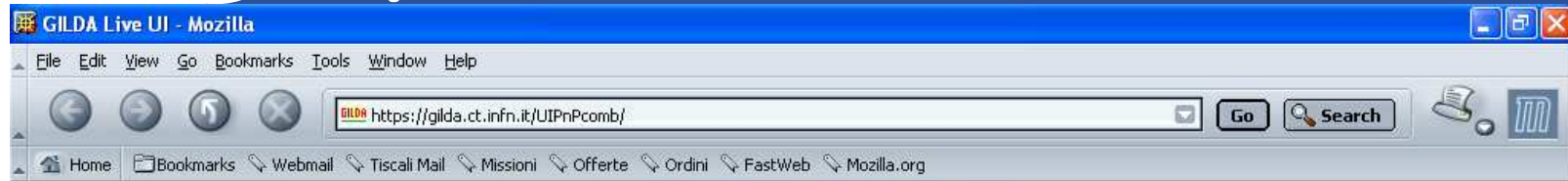
CATANA beam line simulated by hadronTherapy



Grid for Entertainment !







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GILDA USER INTERFACE PLUG & PLAY COMBINED (LCG AND GLITE)

The *GILDA User Interface Plug & Play* tarball contains all the necessary software to seamlessly turn your Linux PC into a machine from you can access and use the *GILDA* dissemination grid realized in the context of both the Italian *INFN Grid Project* and the European *EGEE Project*. The installation procedure installs the User Interface in the user directory so no root privilege is required. This User Interface is based both on *INFN Grid 2.4.0* (fully compatible with *LCG 2.4.0*) and *gLite 1.1*.

GILDA User Interface Plug & Play

[Introduction](#)

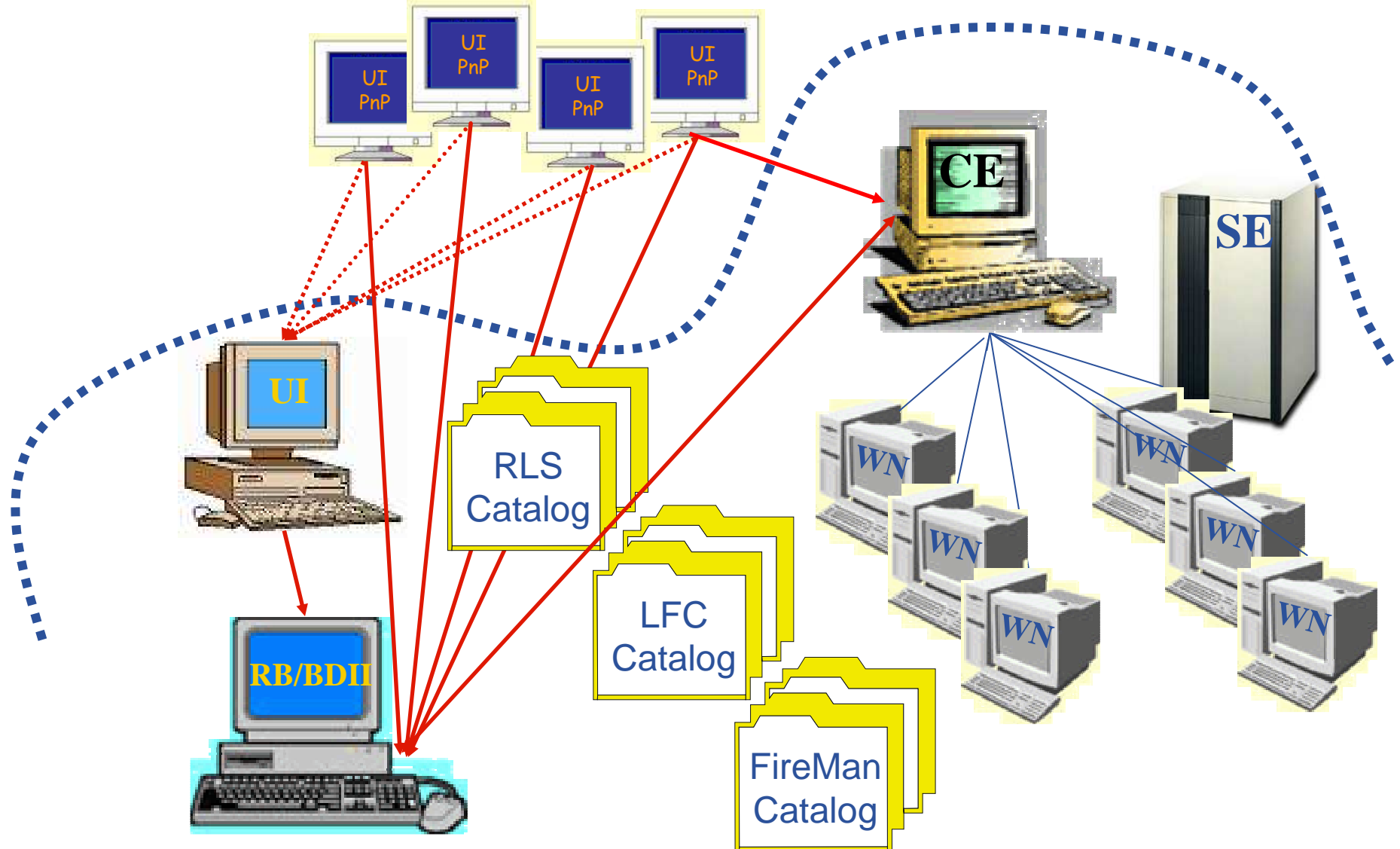
[Use](#)

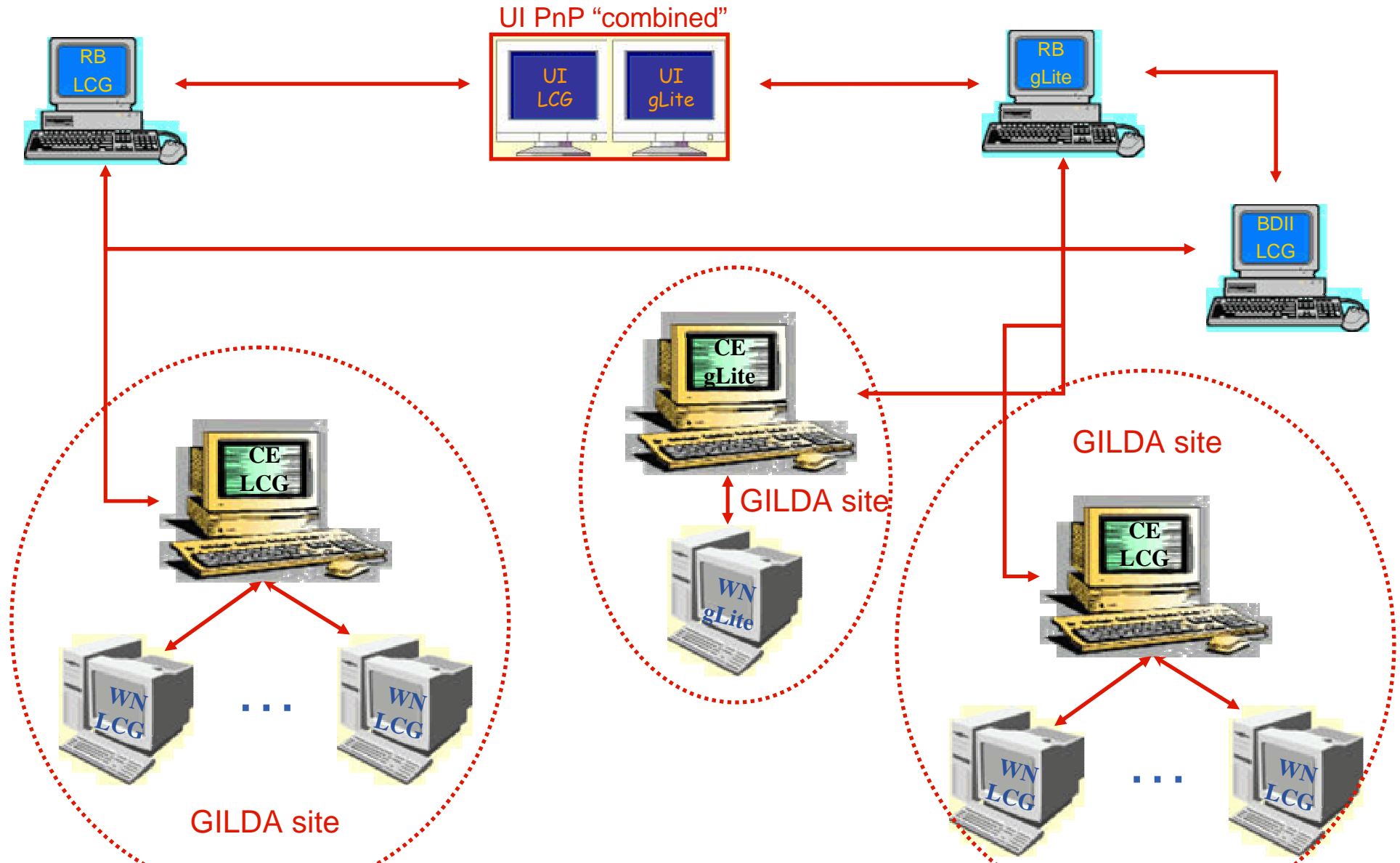
[Download](#)

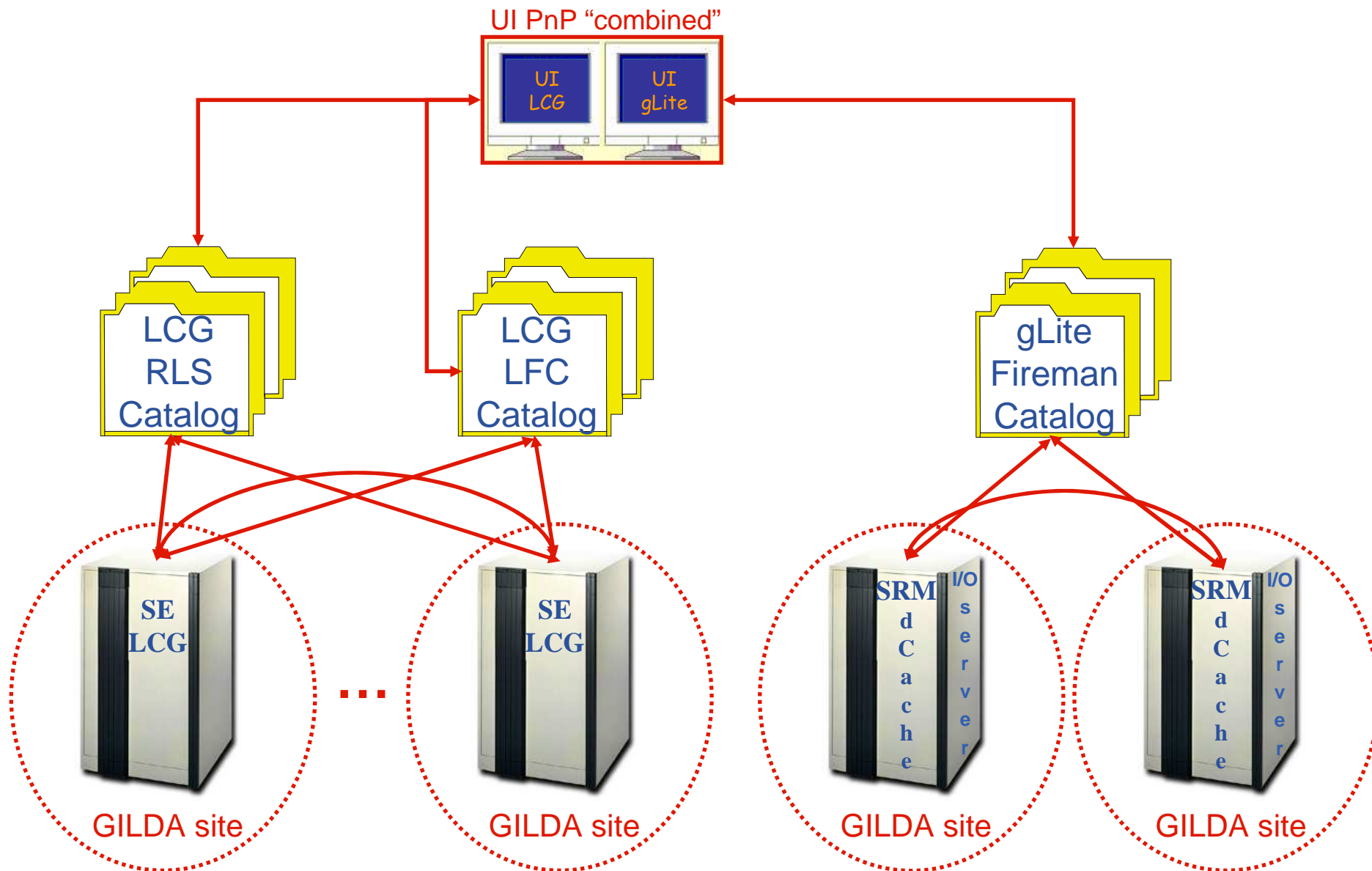
[Useful links & info](#)

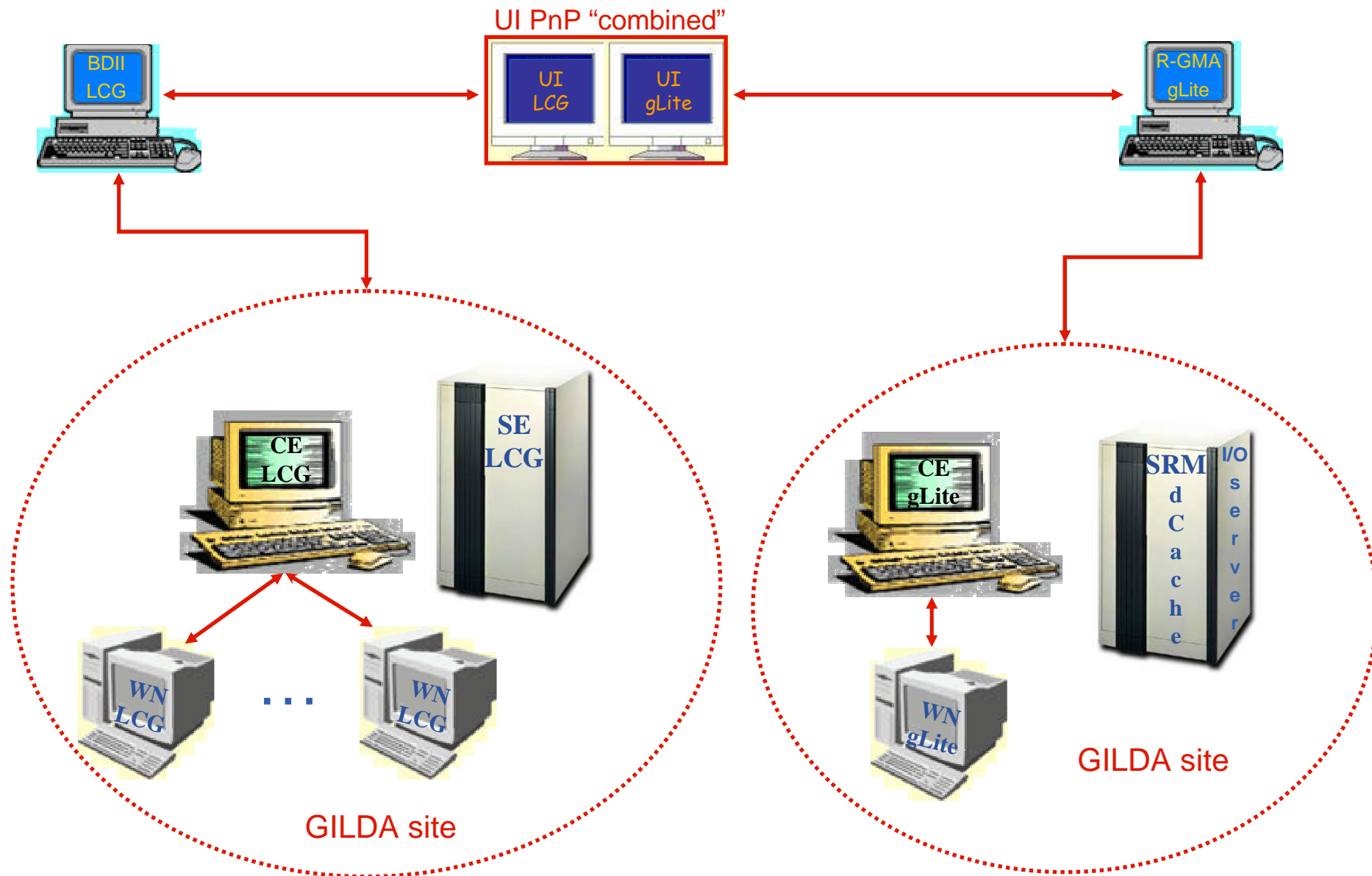
[Contacts & acknowledgments](#)

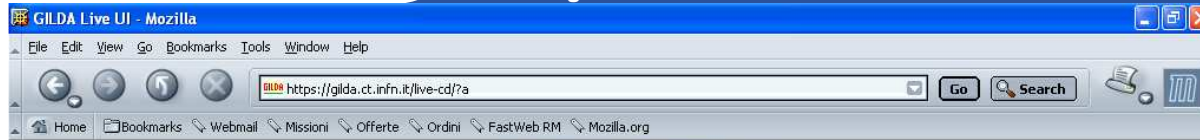
Students User Interfaces











- Grid tutorials
- GILDA Poster
- Video tutorials
- Live User Interface ★ NEW
- User Interface PnP
- Instructions for users
- Instructions for sites
- Useful links

- Sponsors
- Usage Statistics
- Old Usage Statistics



GILDA LIVE USER INTERFACE

The *GILDA Live User Interface* DVD contains all the necessary software and use the [GILDA](#) dissemination grid realized in the context of the INFN Grid Project and the European EGEE Project. *GILDA Live User Interface* is based both on INFN Grid 2.4.0 (fully compliant with LCG 2.4.0) and gLite 1.1 on Knoppix 3.6.

SYSTEM REQUIREMENTS

The Grid middleware installed on the GILDA testbed and, then, on

GILDA Live User Interface



GILDA User Interface
gLite 1.1 and LCG 2.4



2004

Edinburgh, 7 April 2004, [slides](#), [pictures](#)
 Tunis, 22-23 April 2004, [pictures](#)
 Edinburgh, 26-28 April 2004, [slides](#), [pictures](#)
 CERN, 17-19 May 2004, [pictures](#)
 Catania, 24-25 May 2004, [home page](#), [pictures](#)
 Dubna, 29 June - 2 July 2004, [agenda](#)
 Edinburgh, 6 July 2004, [home page](#)
 Catania, 14-16 July 2004, [home page](#), [pictures](#)
 Vico Equense, 19 July 2004, [slides](#), [pictures](#)
 Vico Equense, 6-10 September 2004, [home page](#)
 Catania, 4-8 October 2004, [home page](#), [agenda](#)
 Vilnius, 5-6 October 2004, [agenda](#)
 London, 6 October 2004
 Madrid, 6-7 October 2004, [agenda](#)
 Heidelberg, 11-14 October 2004
 CERN, 16 October 2004
 Prague, 26 October 2004, [home page](#)
 Warsaw, 4-6 November 2004, [home page](#), [agenda](#)
 Lyon, 9-10 November 2004, [agenda](#)
 The Hague, 15-17 November 2004, [pictures](#)
 Merida, 15-20 November 2004, [home page](#), [agenda](#),
[slides](#), [pictures](#)
 Tunis, 20 November 2004
 Rio de Janeiro, 22-23 November 2004, [home page](#),
[agenda](#), [pictures](#)
 The Hague, 24 November 2004, [agenda](#)
 CERN, 29-30 November 2004, [agenda](#)
 Kosice, 30 November - 1 December 2004, [agenda](#)
 Tunis, 6-7 December 2004
 Bochum, 7-10 December 2004, [home page](#), [agenda](#)
 Edinburgh, 8 December 2004, [home page](#)
 Istanbul, 9-10 December 2004, [agenda](#), [slides](#), [pictures](#)
 Shanghai, 9-10 December 2004, [agenda](#)
 Aurillac, 13-14 December 2004
 Prague, 16 December 2004, [home page](#), [pictures](#)
 Tel Aviv, 22-23 December 2004, [agenda](#), [pictures](#)

2005

CERN, 13 January 2005, [agenda](#)
 Torino, 18-19 January 2005, [home page](#), [agenda](#)
 CERN, 20 January 2005, [agenda](#)
 CERN, 2-4 February 2005, [agenda](#)
 Roma, 3 February 2005, [home page](#), [agenda](#), [pictures](#)
 Sydney, 3-4 February 2005, [home page](#)
 CERN, 9-11 February 2005, [agenda](#)
 Amsterdam, 14-16 February 2005, [home page](#)
 Trento, 23-25 February 2005, [home page](#), [agenda](#)
 Amsterdam, 28 February - 1 March 2005, [home page](#)
 Julich, 9 March 2005,
 Clermont-Ferrand, 9-31 March 2005, [agenda](#)
 Vienna, March-August 2005
 Hamburg, 23-24 March 2005, [home page](#), [agenda](#)
 Ula-Merida, 31 March-1 April 2005, [agenda](#)
 Zilina, 4 April 2005, [home page and agenda](#)
 Edinburgh, 9-13 May 2005, [home page and agenda](#)
 St. Augustin, 25 May 2005, [home page and agenda](#)
 Catania, 13-15 June 2005, [home page](#), [agenda](#), [pictures](#)
 Valencia, 14-16 June 2005, [home page](#), [agenda](#)
 Lyon, 17 June 2005, [home page and agenda](#)
 Bratislava, 27-30 June 2005, [agenda](#)
 Forschungszentrum Karlsruhe, 08 July 2005, [home page and agenda](#)
 Vico Equense, 10-22 July 2005, [home page](#), [agenda](#)
 Budapest, 11-16 July 2005, [home page](#), [agenda](#)
 Clermont-Ferrand, 25-27 July 2005, [home page](#), [agenda](#)
 Madrid, 26-27 July 2005, [home page](#), [agenda](#)
 Swansea, 06 August 2005, [home page and agenda](#)
 Taipei, 22-23 August 2005, [home page and agenda](#)
 Tokyo, 25-26 August 2005, [home page and agenda](#)
 Seoul, 29-30 August 2005, [home page and agenda](#)
 Saint-Malo, 12-15 September 2005, [home page](#), [agenda](#)
 Karlsruhe, 26-30 September 2005, [home page](#), [agenda](#)
 Raanana, 28-29 September 2005, [home page](#), [agenda](#)

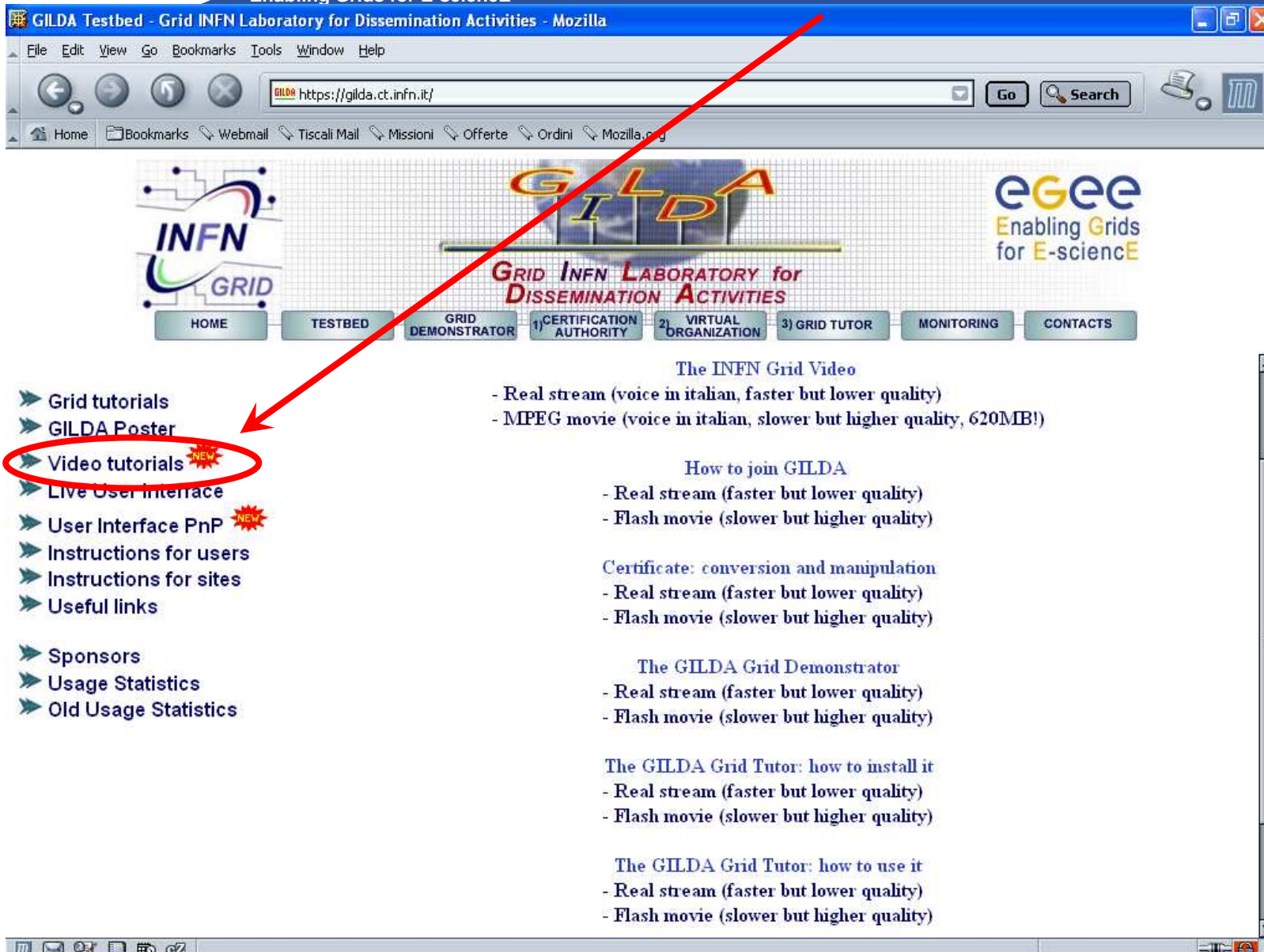
2005

London, 6 October 2005, [home page and agenda](#)
Sophia Antipolis, 10-14 October 2005, [home page](#),
[agenda](#)
Tenerife, 16 October 2005, [home page and agenda](#)
Pisa, 23 October 2005, [home page and agenda](#)
Rome, 2-4 November 2005, [home page and agenda](#)
Cracow, 20-24 November 2005, [home page](#), [agenda](#)
Merida, 21-25 November 2005, [home page](#), [agenda](#)
Aurillac, 23 November 2005
Linz, 24 November - [home page and agenda](#)
Zaragoza, 28-30 November 2005, [home page](#), [agenda](#),
[pictures](#)
Warsaw, 30 November - 3 December 2005, [home page](#),
[agenda](#)
Linz, 30 November - 8 December 2005, [home page and](#)
[agenda](#)
Aurillac, 1 December 2005
CERN, 6-7 December 2005, [home page and agenda](#)
Aurillac, 8 December 2005
Sophia-Antipolis, 8-9 December 2005, [home page and](#)
[agenda](#)

2006

Clermont-Ferrand, 2 January - 17 February 2006, [home](#)
[page and agenda](#)
Aurillac, 5 January 2006
Naples, 10 January - 28 February 2006
Aurillac, 13 January 2006
Melbourne, 30-31 January 2006, [home page and](#)
[agenda](#)
Brisbane, 2-3 February 2006, [home page and agenda](#)
Trieste, 6-17 February 2006, [home page and agenda](#)
Singapore, 9-10 February 2006, [home page](#), [agenda](#)
Tel Aviv, 15 February 2006, [home page](#), [agenda](#)
Madrid, 20-24 February 2006, [home page](#), [agenda](#)
CERN, 27-28 February 2006, [home page](#), [agenda](#)
Bari, 8-10 March 2006, [home page](#), [agenda](#)
Edinburgh, 16-23 March 2006, [home page](#), [agenda](#)
Beijing, 3-7 April 2006
Beijing, 12-16 June 2006





Grid tutorials

- Grid tutorials
- GILDA Poster
- **Video tutorials** NEW
- Live User Interface
- User Interface PnP NEW
- Instructions for users
- Instructions for sites
- Useful links

Sponsors

- Sponsors
- Usage Statistics
- Old Usage Statistics

The INFN Grid Video

- Real stream (voice in italian, faster but lower quality)
- MPEG movie (voice in italian, slower but higher quality, 620MB!)

How to join GILDA

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

Certificate: conversion and manipulation

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

The GILDA Grid Demonstrator

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

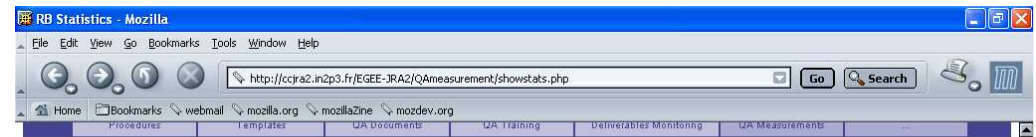
The GILDA Grid Tutor: how to install it

- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

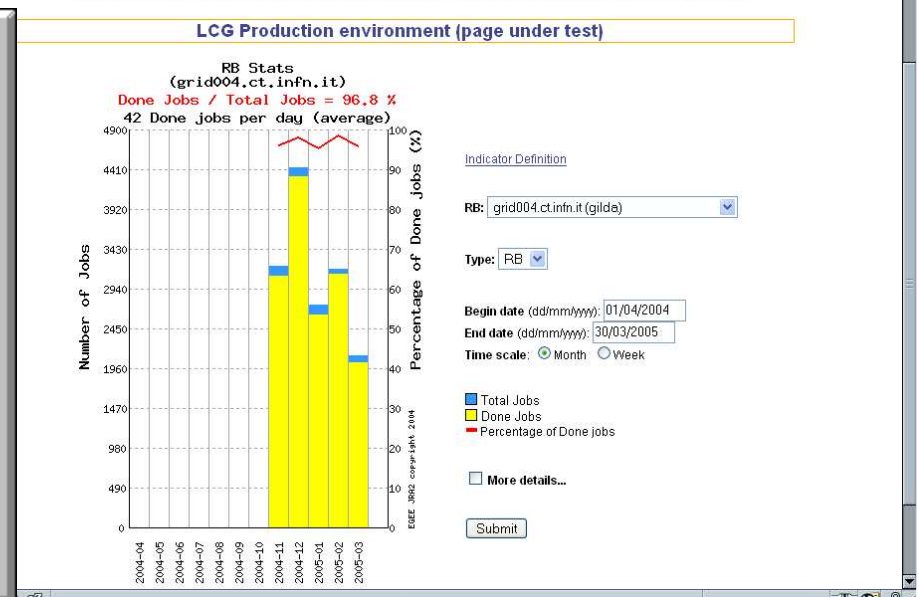
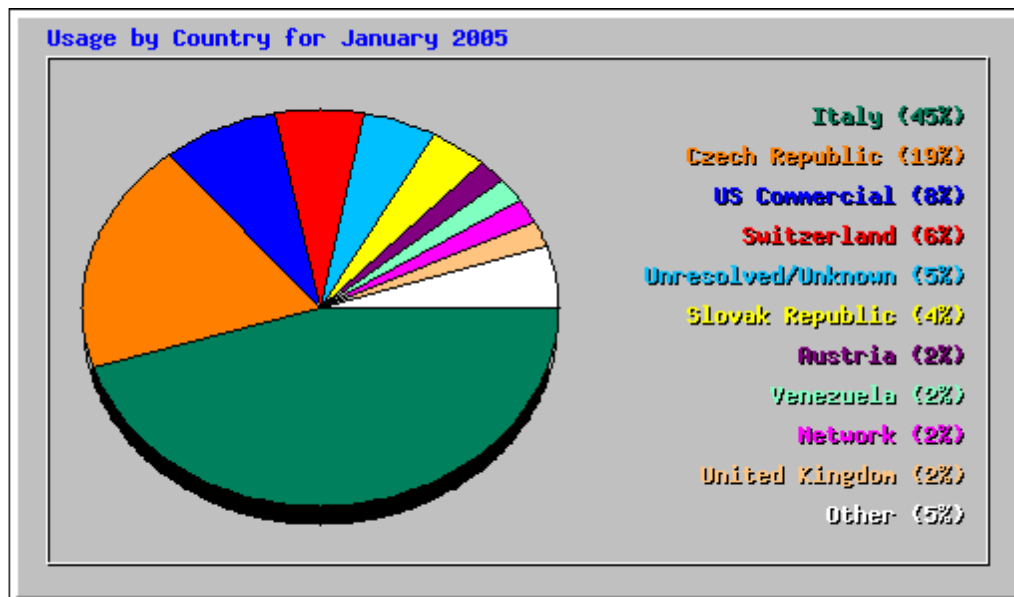
The GILDA Grid Tutor: how to use it

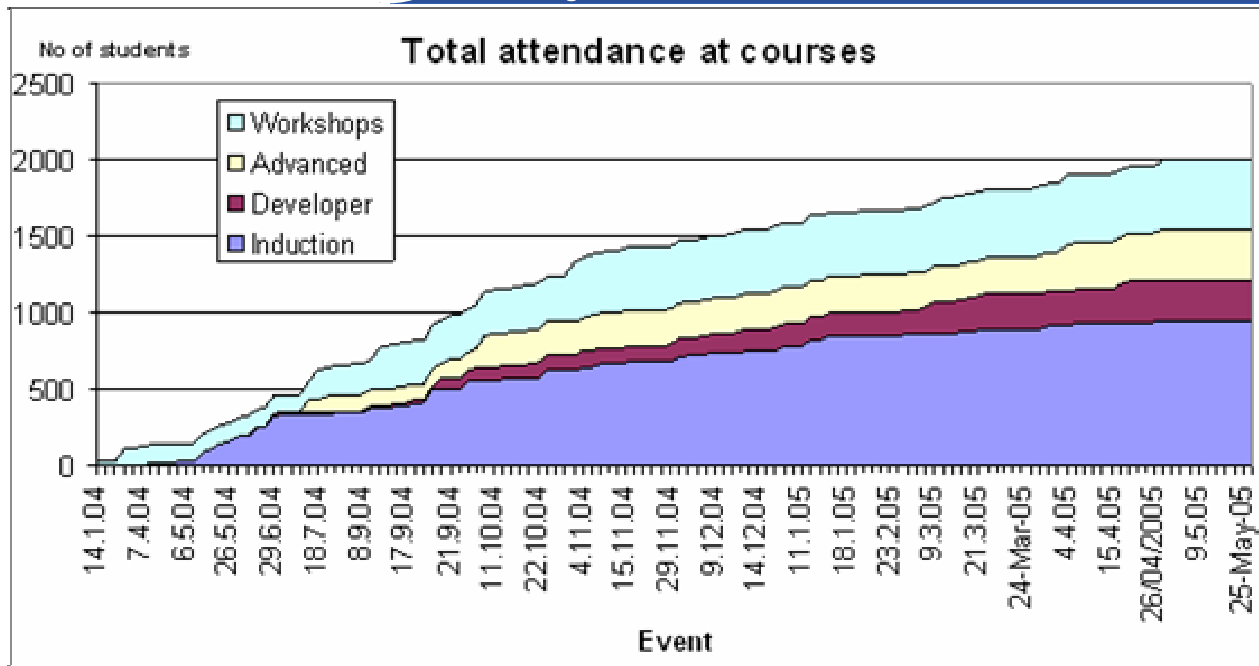
- Real stream (faster but lower quality)
- Flash movie (slower but higher quality)

- 19 sites in 3 continents
- > 2000 certificates issued, 15% renewed at least once
- > 50 tutorials and demos performed in 15 months
- > 50 jobs/day on the average
- Job success rate above 80%
- > 750,000 hits (> 40,000 visits) on (of) the web site from 10's of different countries
- > 0.5 TB of videos and UI's downloaded from the web site

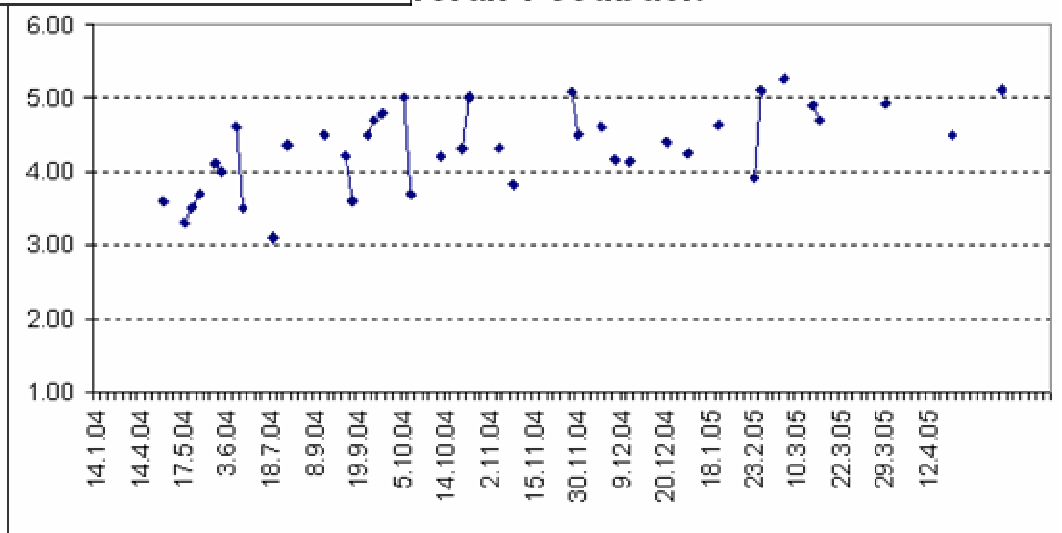


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Overall Feedback



- **7 Virtual Organizations supported:**
 - Biomedicine (Biomed)
 - Earth Science Academy (ESR)
 - Earth Science Industry (CGG)
 - Astroparticle Physics (MAGIC)
 - Computational Chemistry (GEMS)
 - Grid Search Engines (GRACE)
 - Astrophysics (PLANCK)
- **Development of complete interfaces with GENIUS for 3 Biomed Applications: GATE, hadronTherapy, and Friction/Arlecore**
- **Development of complete interfaces with GENIUS for 4 Generic Applications: EGEODE (CGG), MAGIC, GEMS, and CODESA-3D (ESR) (successfull demos of EGEODE and GEMS at EGEE review)**
- **Development of complete interfaces with GENIUS for 16 demonstrative applications available on the GILDA Grid Demonstrator (<https://grid-demo.ct.infn.it>)**
- **Development of complete interface with CLI for NEMO**

- **GILDA is a real virtual laboratory for dissemination of grid computing:**
 - It is a “de facto” standard t-Infrastructure adopted both by EGEE and some forthcoming EU-FP6 projects (EELA, EUCHINAGRID, EUMEDGRID, **ICEAGE**)
 - It is a complete suite of grid elements (test-bed, CA, VO, monitoring system, web portal, **live user interface, user interface plug&play**) and applications fully dedicated to dissemination purposes and pre-orting of new applications to EGEE Infrastructure
 - GILDA runs latest production (stable) version of both the LCG grid middleware but it is also early adopting gLite in order to make the transition to the new middleware smoother and easier