Enabling Grids for E-science in Europe

www.eu-egee.org

EGEE tutorial, 03.02.2005 Roma

The GILDA Testbed

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INFN Catania

EGEE is a project funded by the European Union under contract IST-2003-508833

Testbed (1/2)

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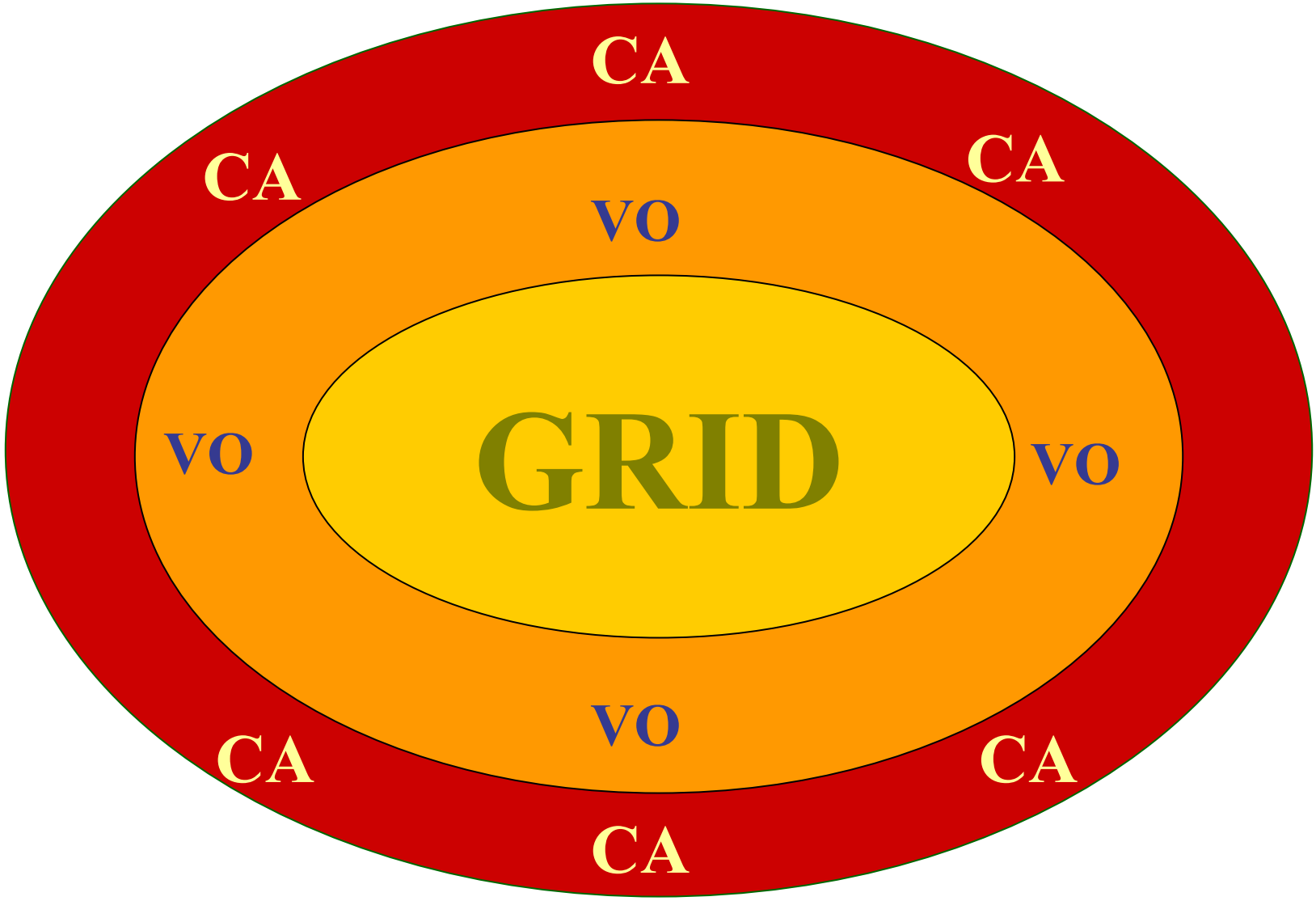

Testbed (2/2)

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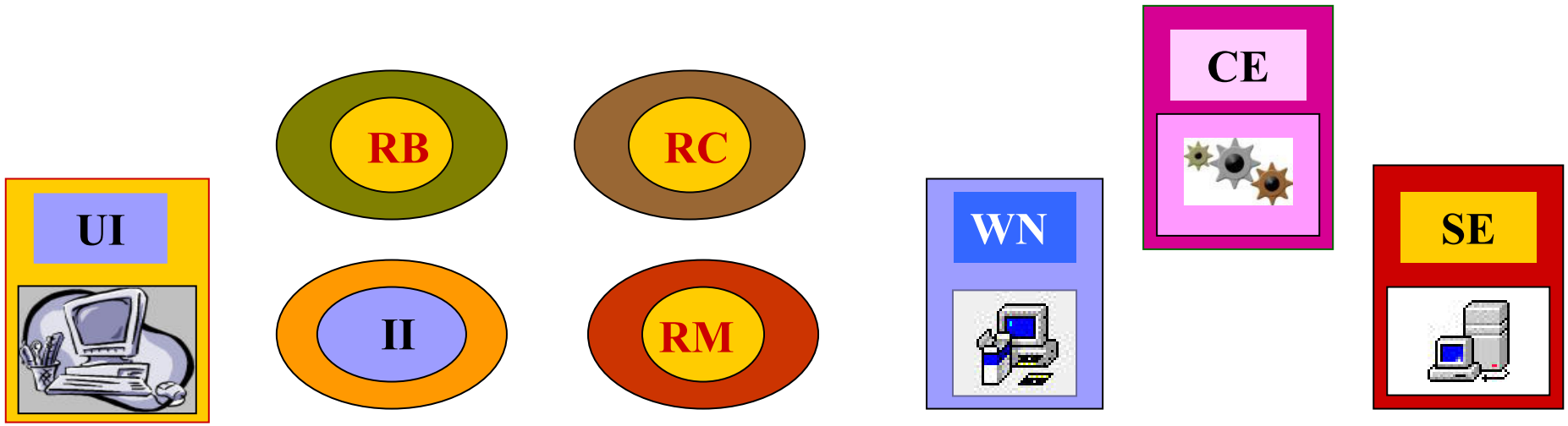
- A Testbed is “**real grid**” implemented to test the middleware;
- Its main limit is “**restrict access**” to small group of developers and scientists for a limited period of time.
- A testbed, is made up of one or more **nodes** which may be playing different roles.



The GILDA project (https://gilda.ct.infn.it)

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The GILDA Test-bed (https://gilda.ct.infn.it/testbed.html)

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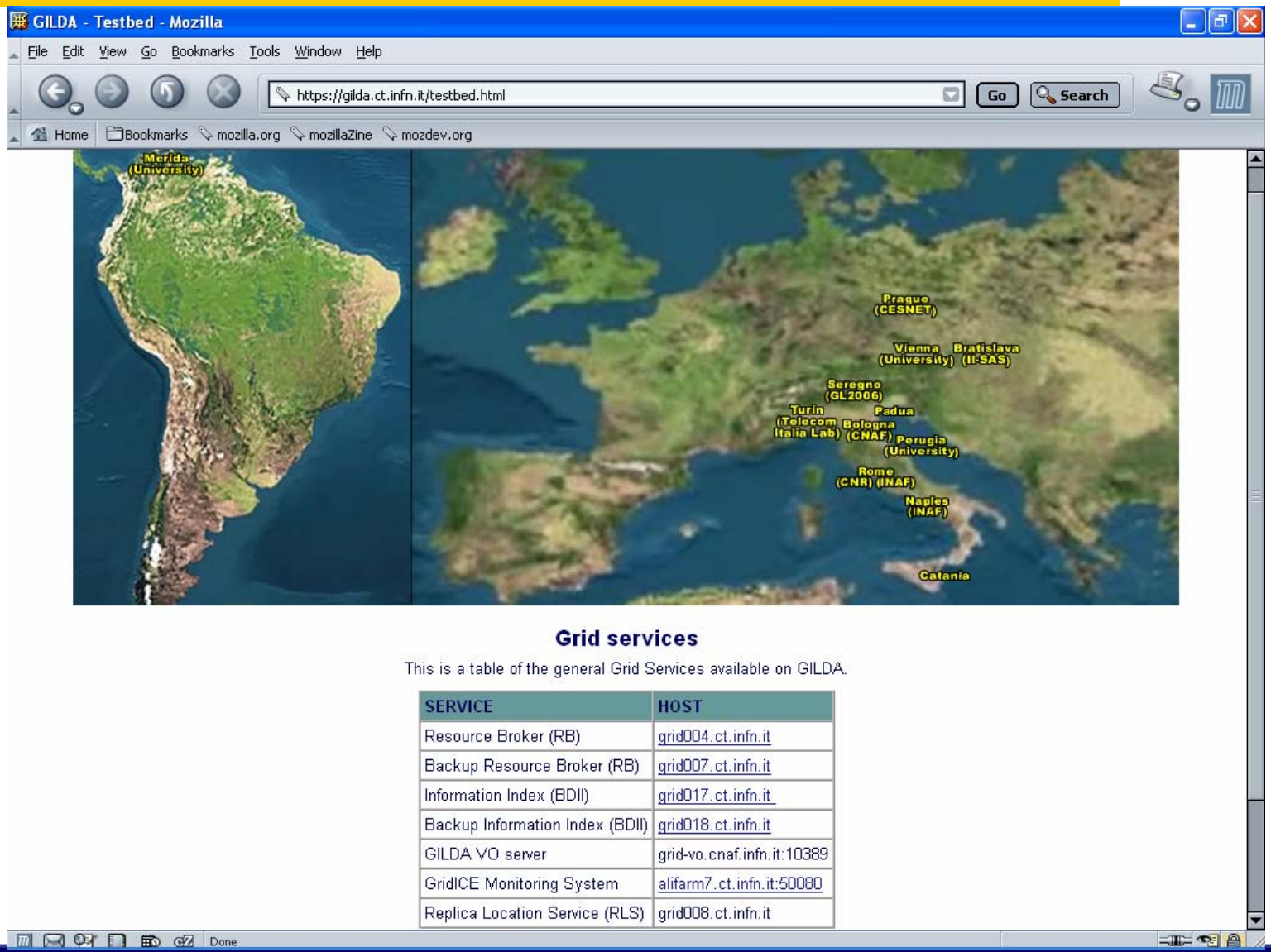

The GILDA Monitoring System (1/3) (http://alifarm7.ct.infn.it:50080/gridice)

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The GILDA Monitoring System (2/3)

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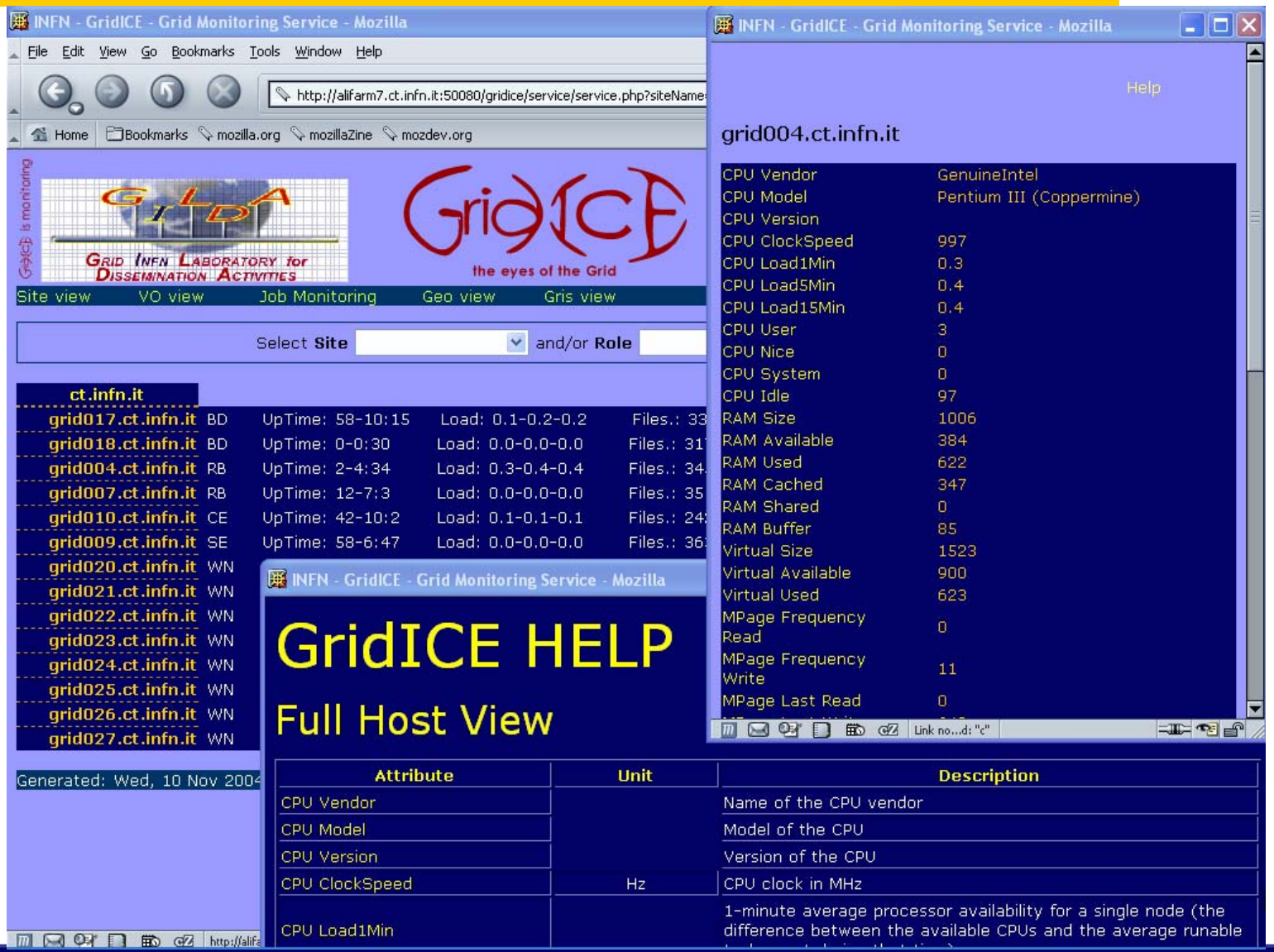

The GILDA Monitoring System (3/3)

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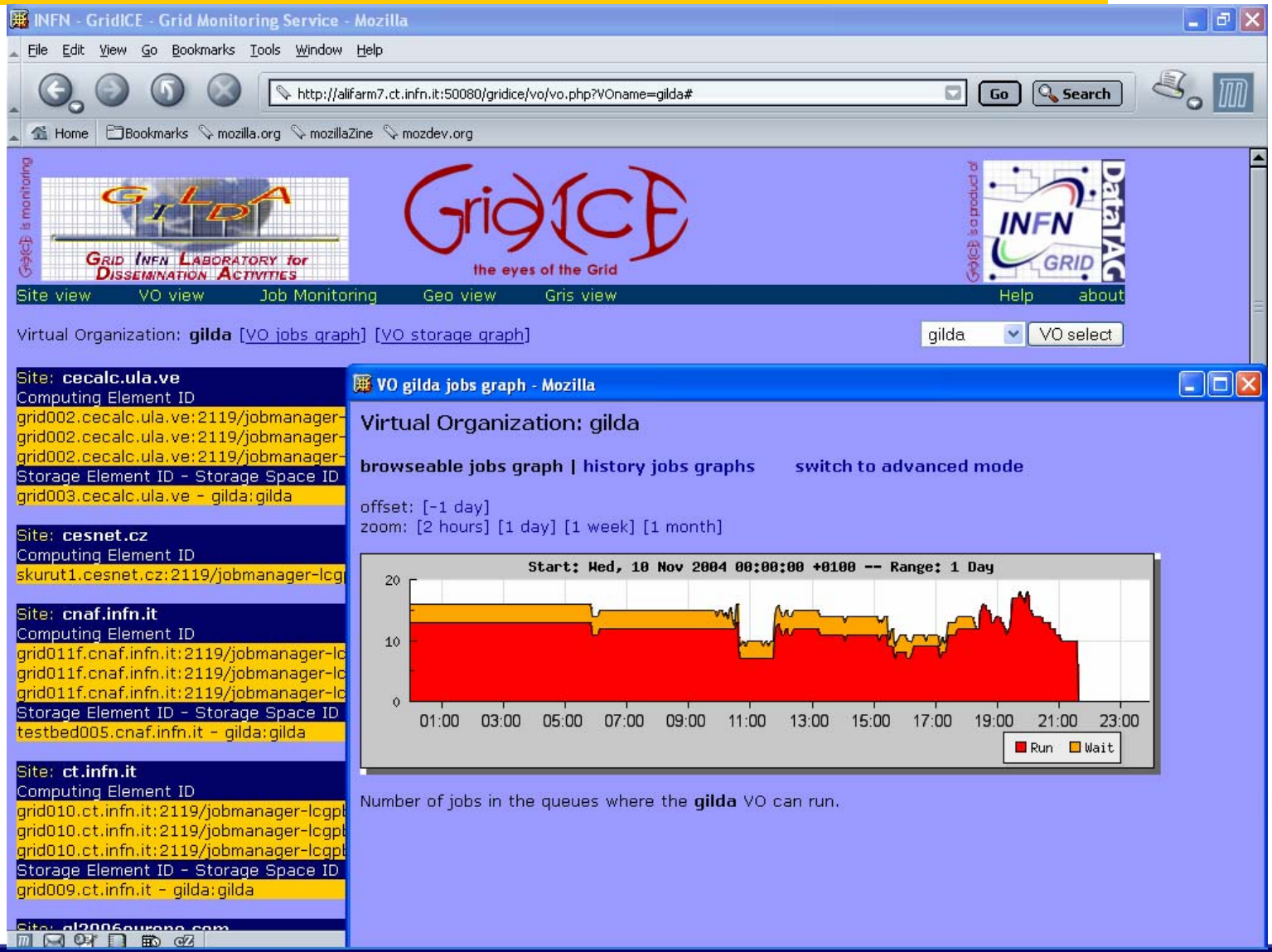

The GILDA Certification Authority (1/4) (https://gilda.ct.infn.it/CA)

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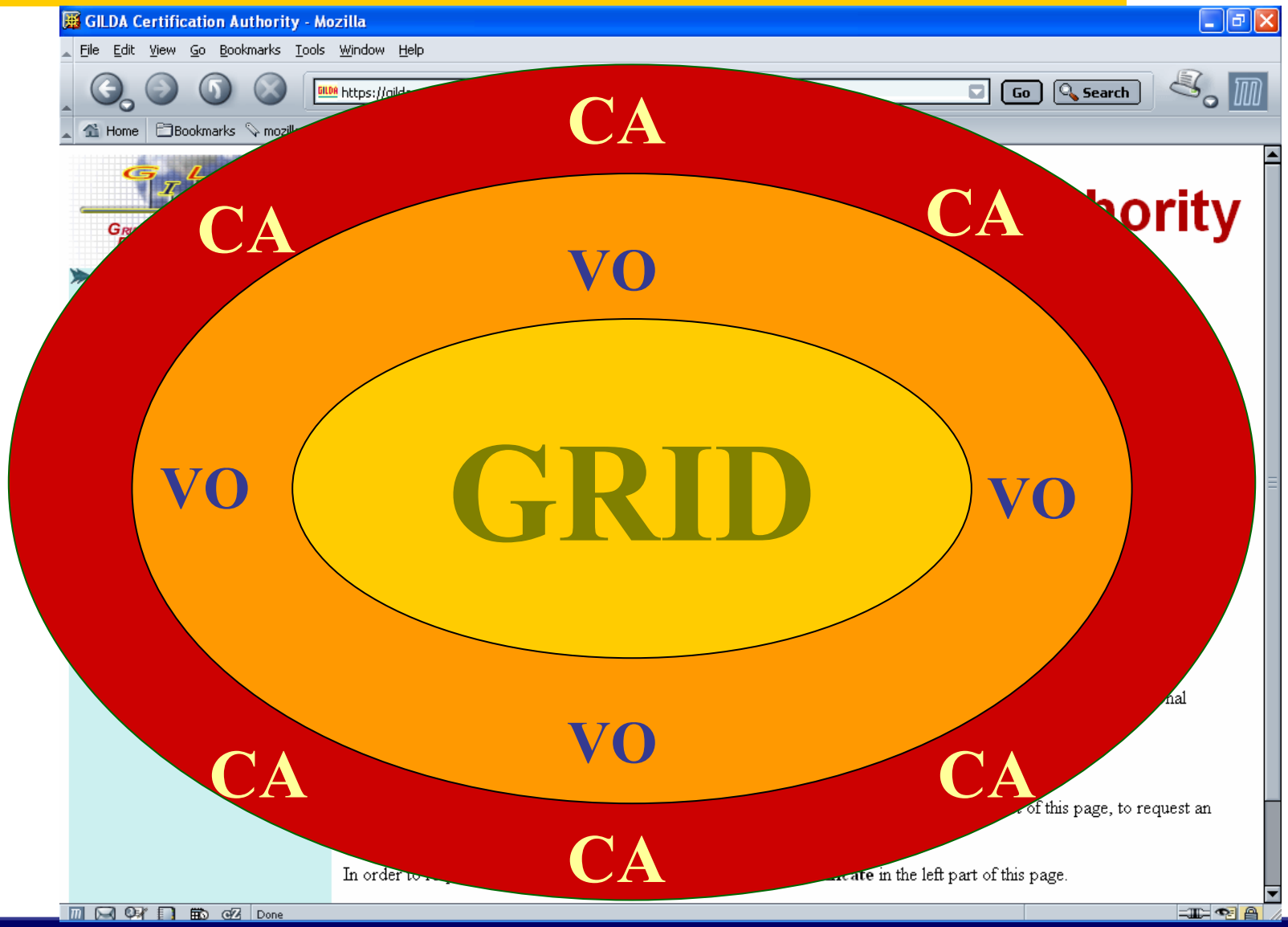

The GILDA Certification Authority (2/4)

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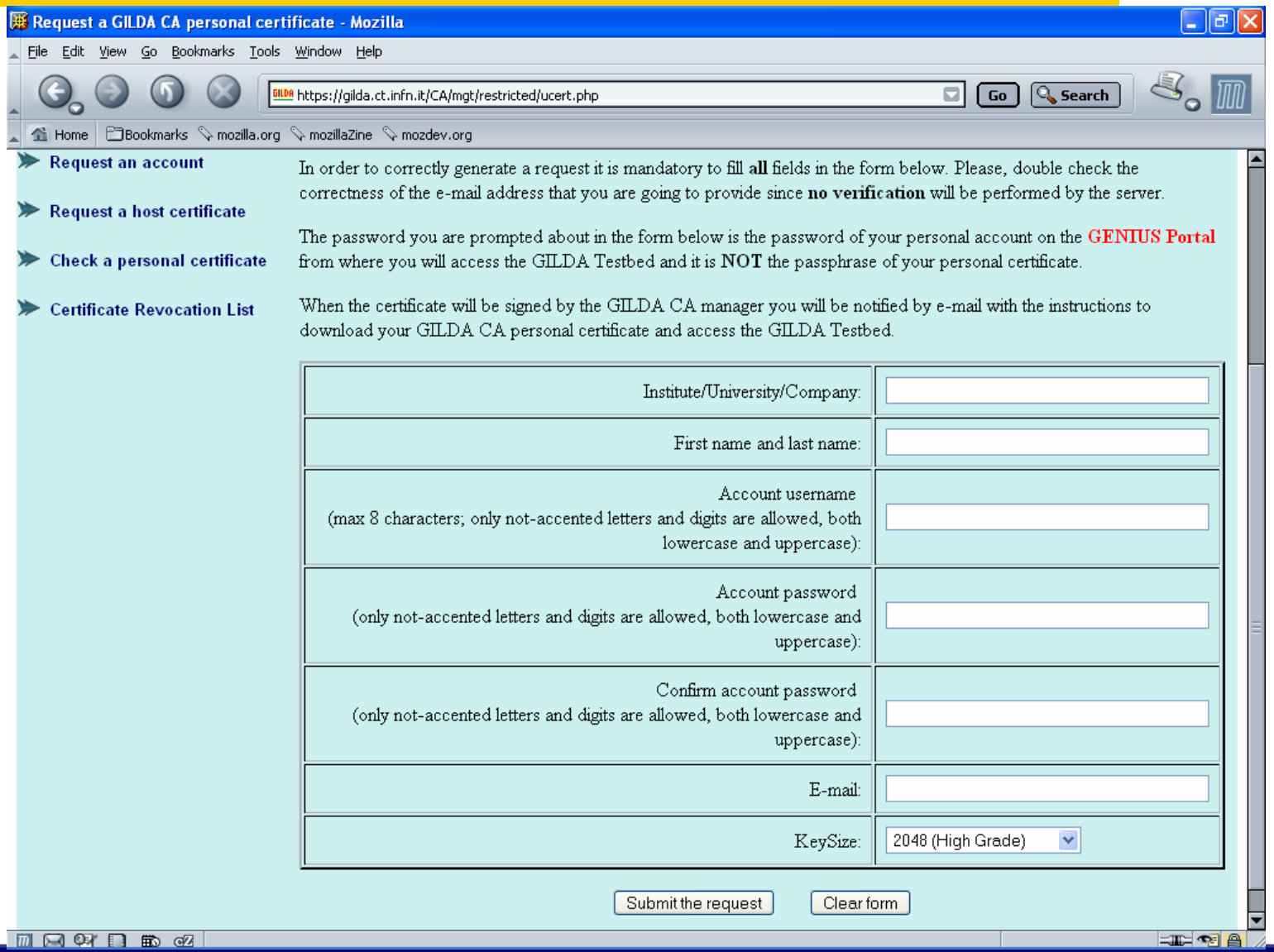

The GILDA Certification Authority (3/4)

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Date: Wed, 31 Mar 2004 09:32:47 +0200
From: gilda-ca@ct.infn.it
To: roberto.barbera@ct.infn.it
Subject: GILDA Personal Certificate for Roberto Barbera

Dear User,

you can download your GILDA Personal Certificate going,
with the same browser you used to submit the request,
to the URL:

https://gilda.ct.infn.it/cgi-bin/gucert.pl?07

(remember that your certificate is valid only for 14 days).
After that you can go to:

https://grid-vo.cnaf.infn.it/subscribe-gilda.php

and register to the GILDA VO (usually, registration takes a working day).

Then, you can go to the GENIUS Grid Portal at the URL:

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

and access the GILDA Testbed to submit jobs to it.
Remember that:

1) when you are prompted for the Operating System, use the username
and the password you have chosen when you requested the GILDA
Personal Certificate as username and as password;

2) when you are prompted for the GRID username and password
and the passphrase of your GILDA Personal Certificate as password.

Best Regards

--
GILDA Certification Authority
Tel: +39 095 378 5469
Fax: +39 095 378 5231
Via S. Sofia, 64
I-95123 Catania
ITALY
https://gilda.ct.infn.it/CA/

The GILDA Certification Authority (4/4)

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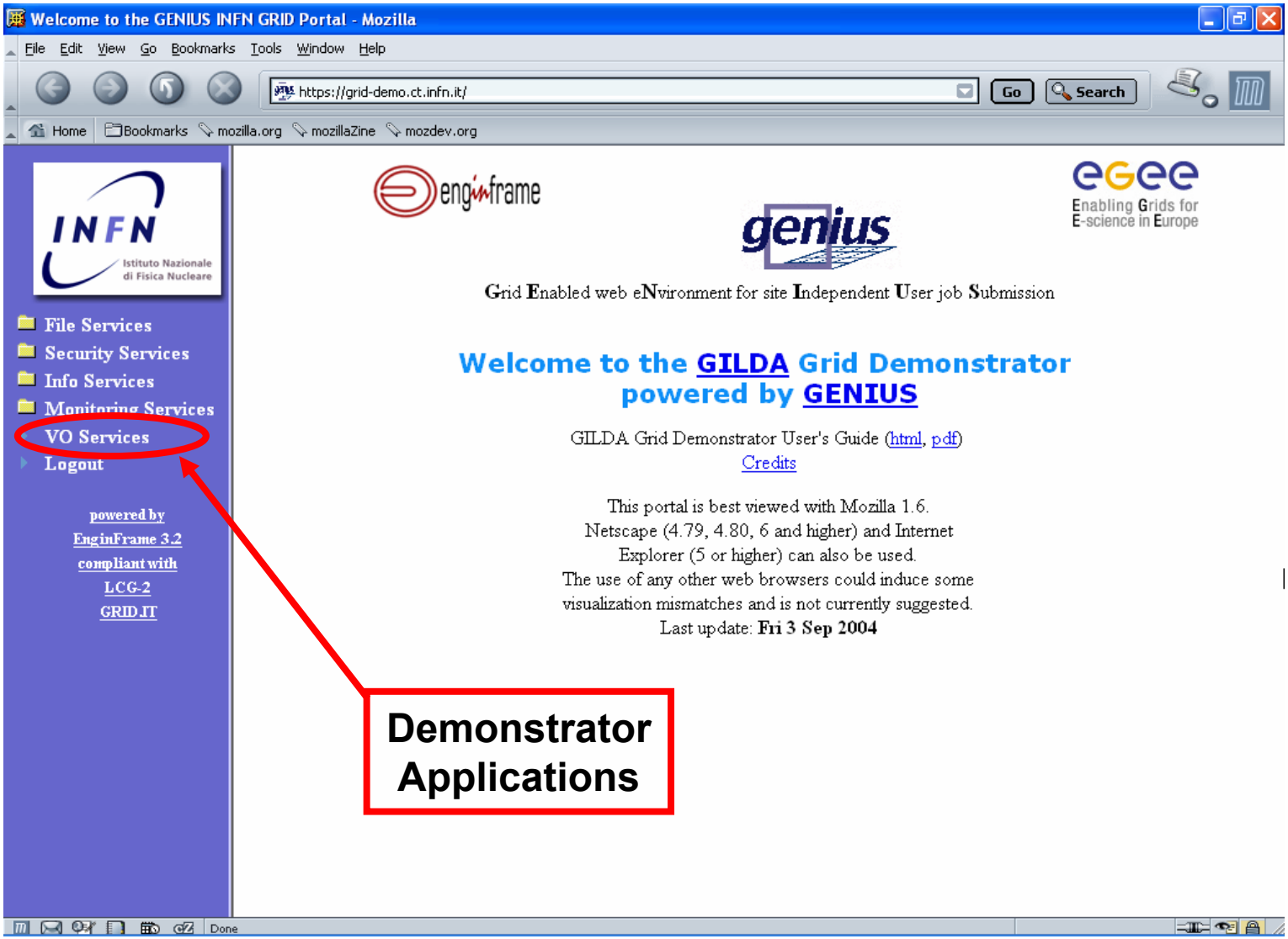
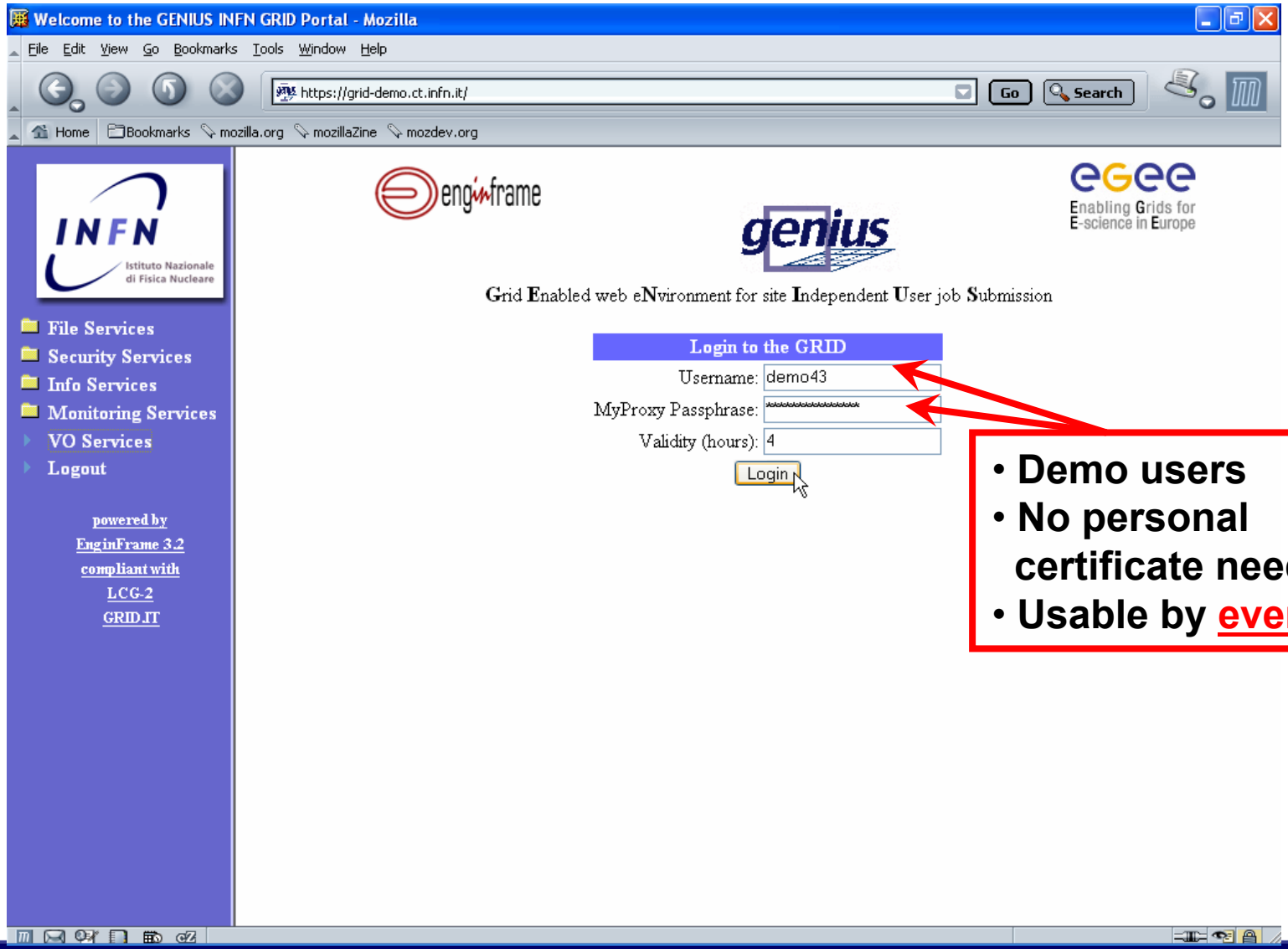
The GILDA Virtual Organization

The Grid Demonstrator (1/2) (https://grid-demo.ct.infn.it)



The Grid Demonstrator (2/2) (https://grid-demo.ct.infn.it)



- Demo users
- No personal certificate needed
- Usable by everybody!

Grid Demonstrator applications (1/3)

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Grid Demonstrator applications (2/3)

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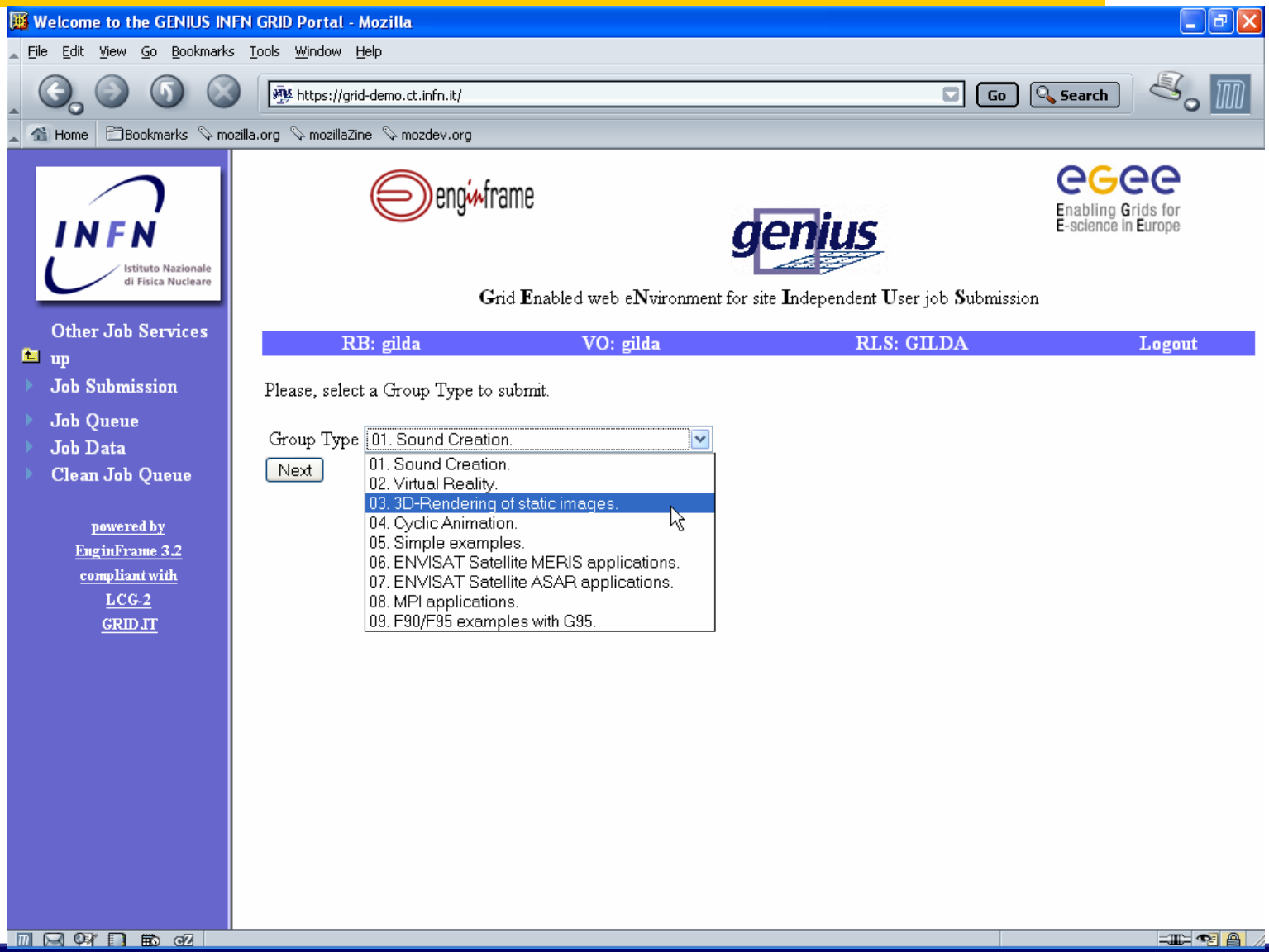

Grid Demonstrator applications (3/3)

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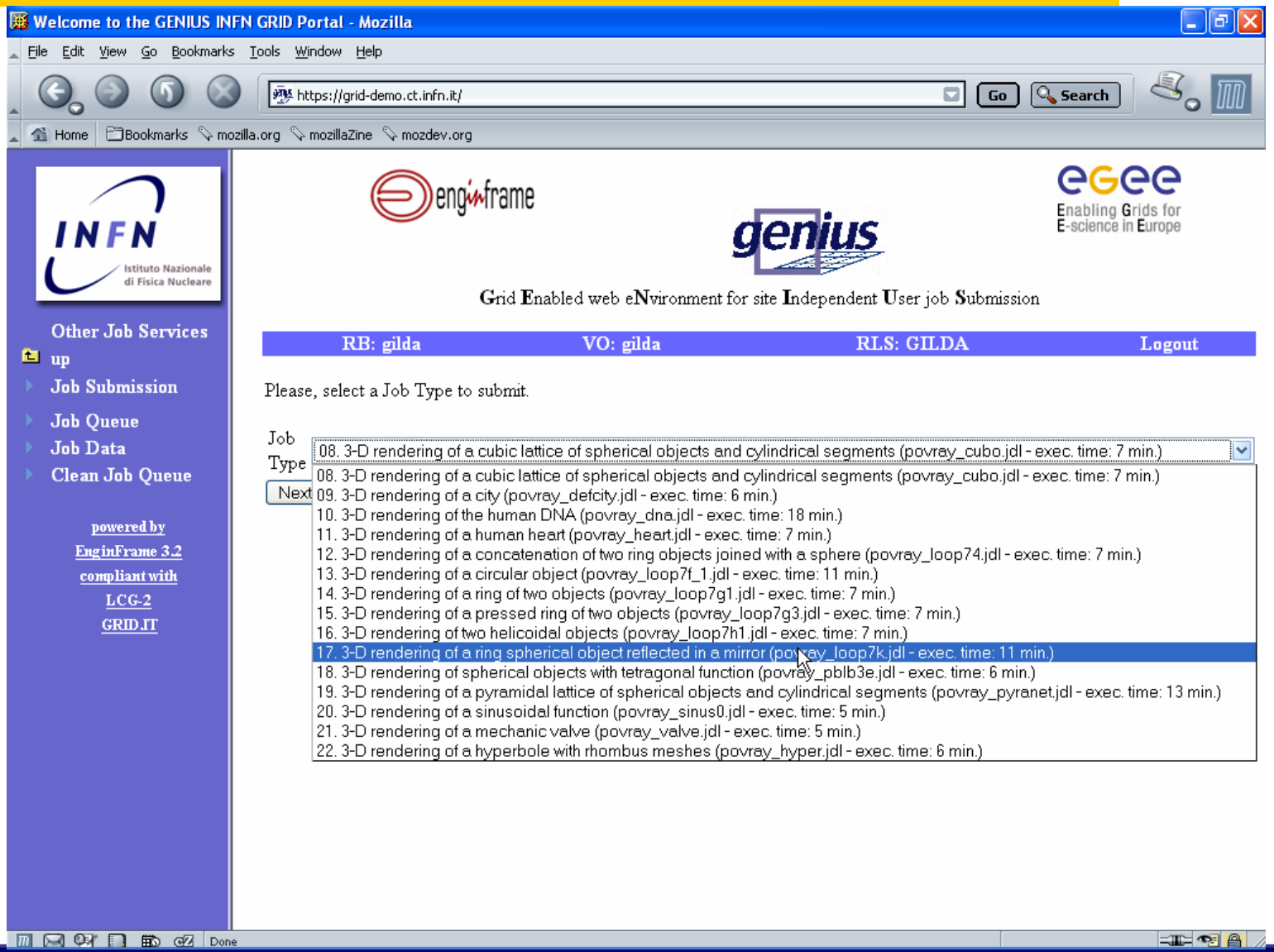

Some functionalities of GILDA

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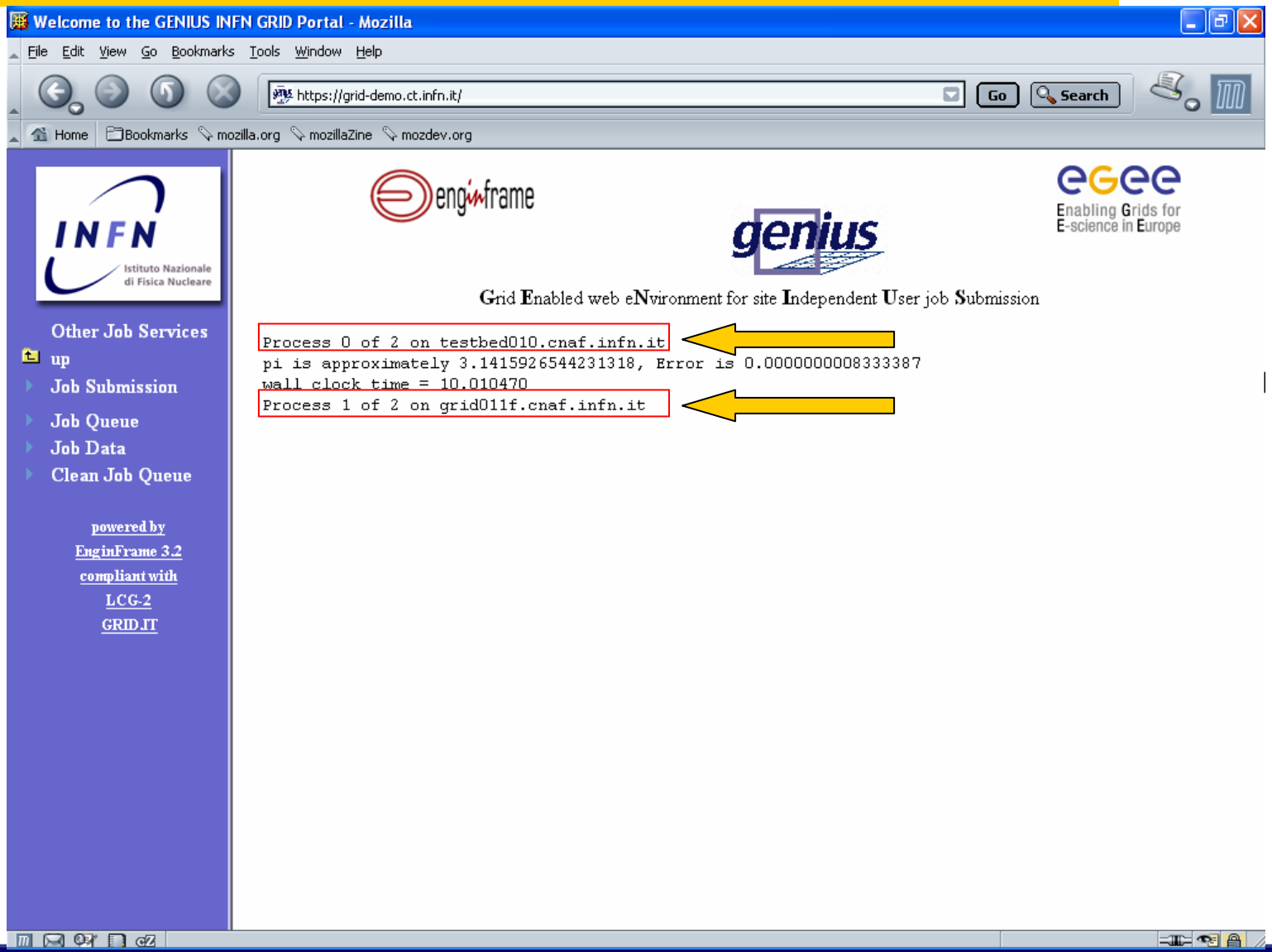
- Complete support for MPI jobs
- Complete support for DAG jobs
  - DAG UI: grid-demo1.ct.infn.it
  - DAG RB: grid007.ct.infn.it
- SciLab (http://www.scilab.org, a MathLab clone) installed on all sites and successfully tested
- GEANT4 installed on all sites and successfully tested
- GNU G95 Fortran 90/95 compiler (http://www.g95.org) available on all sites
- Complete support for DGAS accounting system very soon

MPI example


Welcome to the GENIUS INFN GRID Portal - Mozilla
File Edit View Go Bookmarks Tools Window Help
https://grid-demo.ct.infn.it/
Go
Search
Home
Bookmarks
mozilla.org
mozillaZine
mozdev.org
INFN
Istituto Nazionale di Fisica Nucleare
Other Job Services
up
Job Submission
Job Queue
Job Data
Clean Job Queue
powered by
EnginFrame 3.2
compliant with
LCG-2
GRID.IT
enginframe
genius
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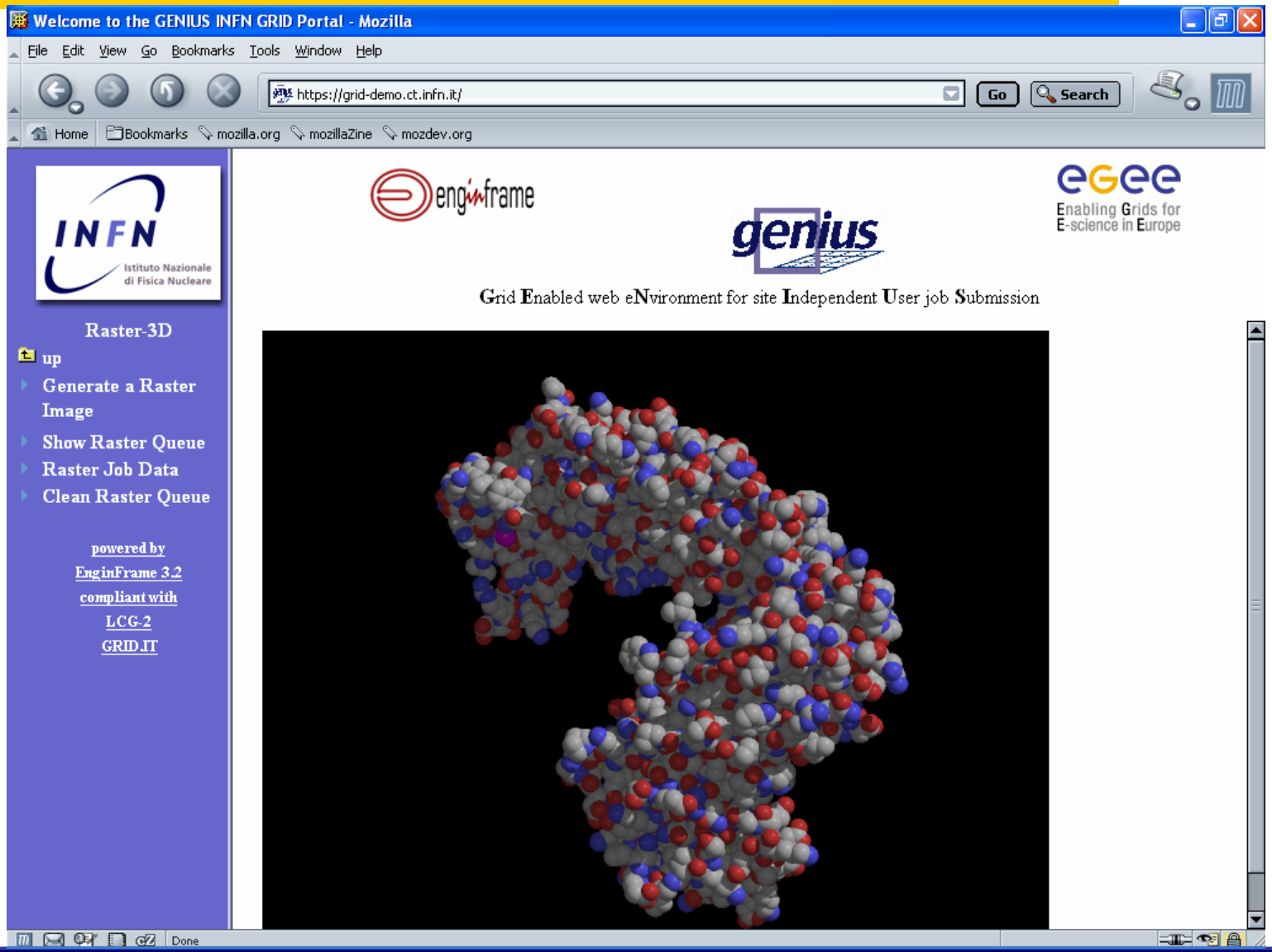
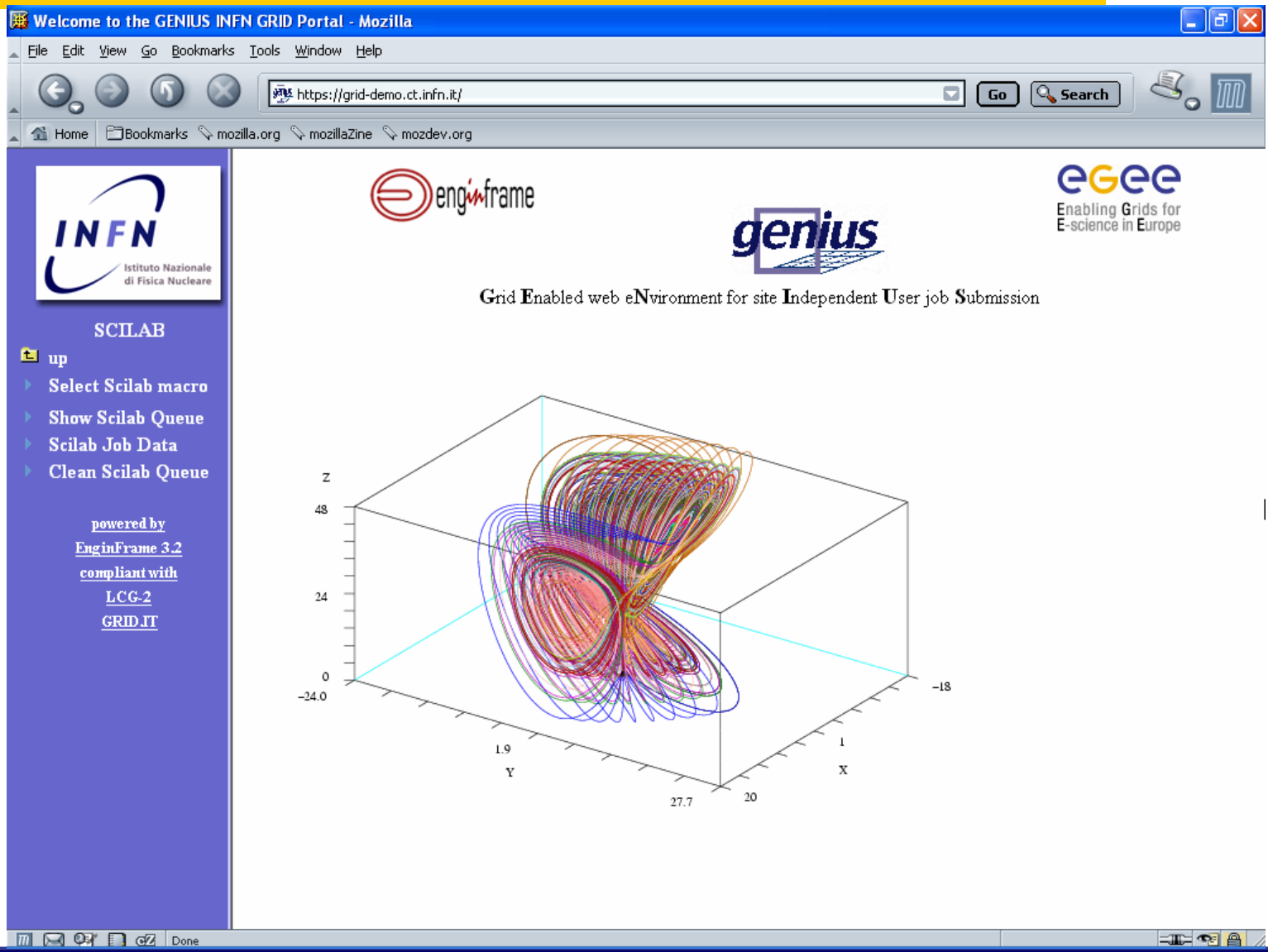
Grid Enabled web eNvironment for site Independent User job Submission
Process 0 of 2 on testbed010.cnaf.infn.it
pi is approximately 3.1415926544231318, Error is 0.0000000008333387
wall clock time = 10.010470
Process 1 of 2 on grid011f.cnaf.infn.it

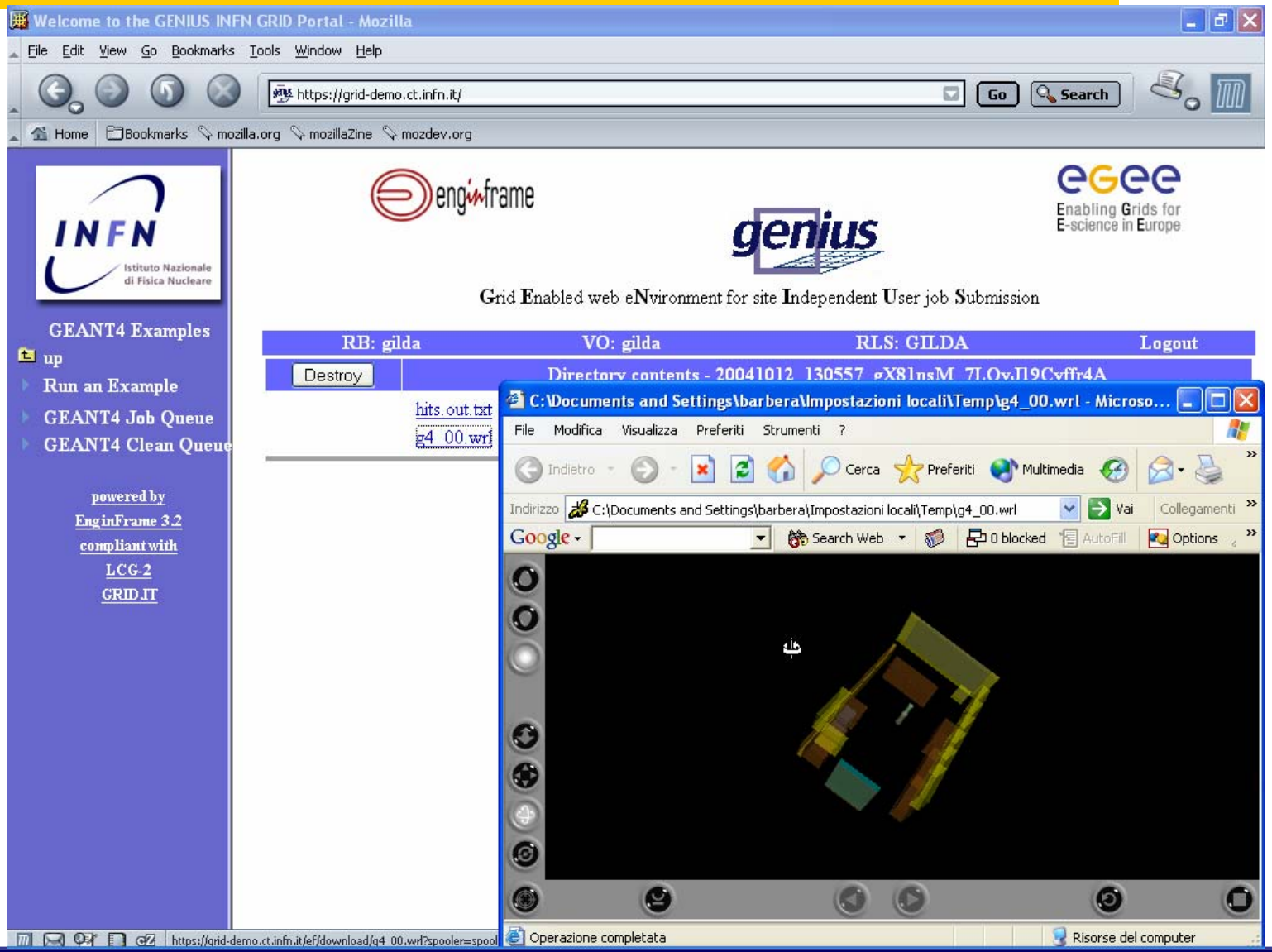
Raster-3D example



SciLab example



GEANT4 example



hadronTherapy example

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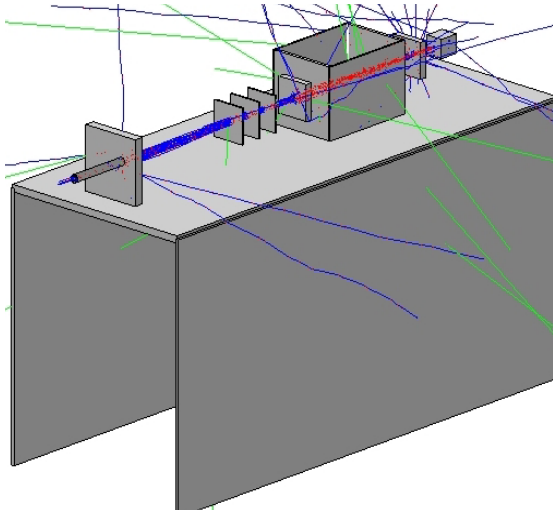
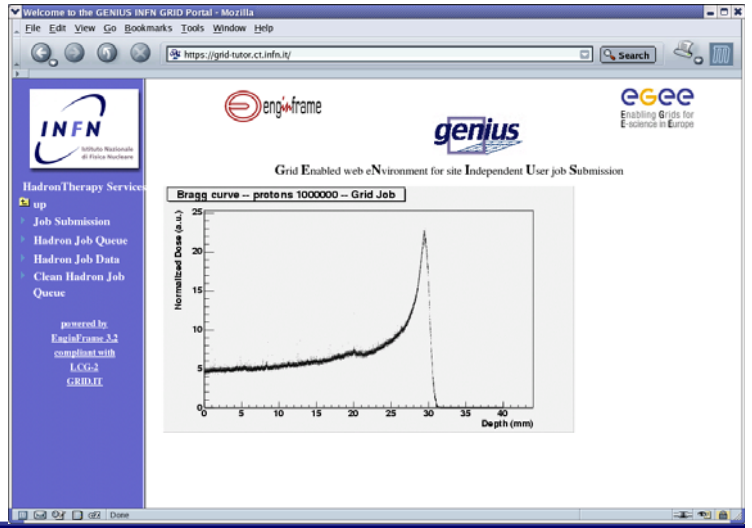
CATANA beam line in reality

hadronTherapy in GENIUS

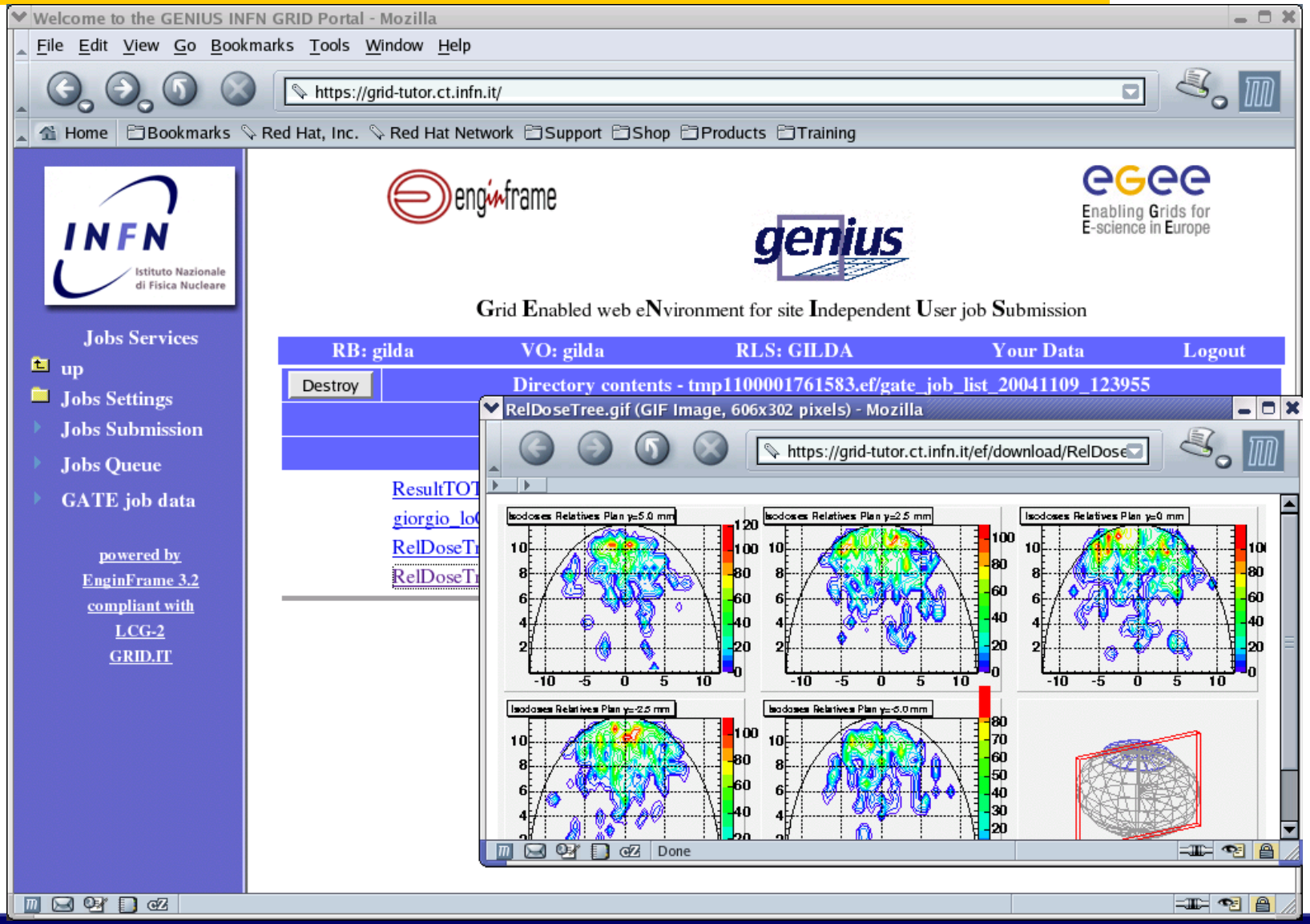


CATANA beam line simulated by

hadronTherapy



GATE example



“Video on demand” example

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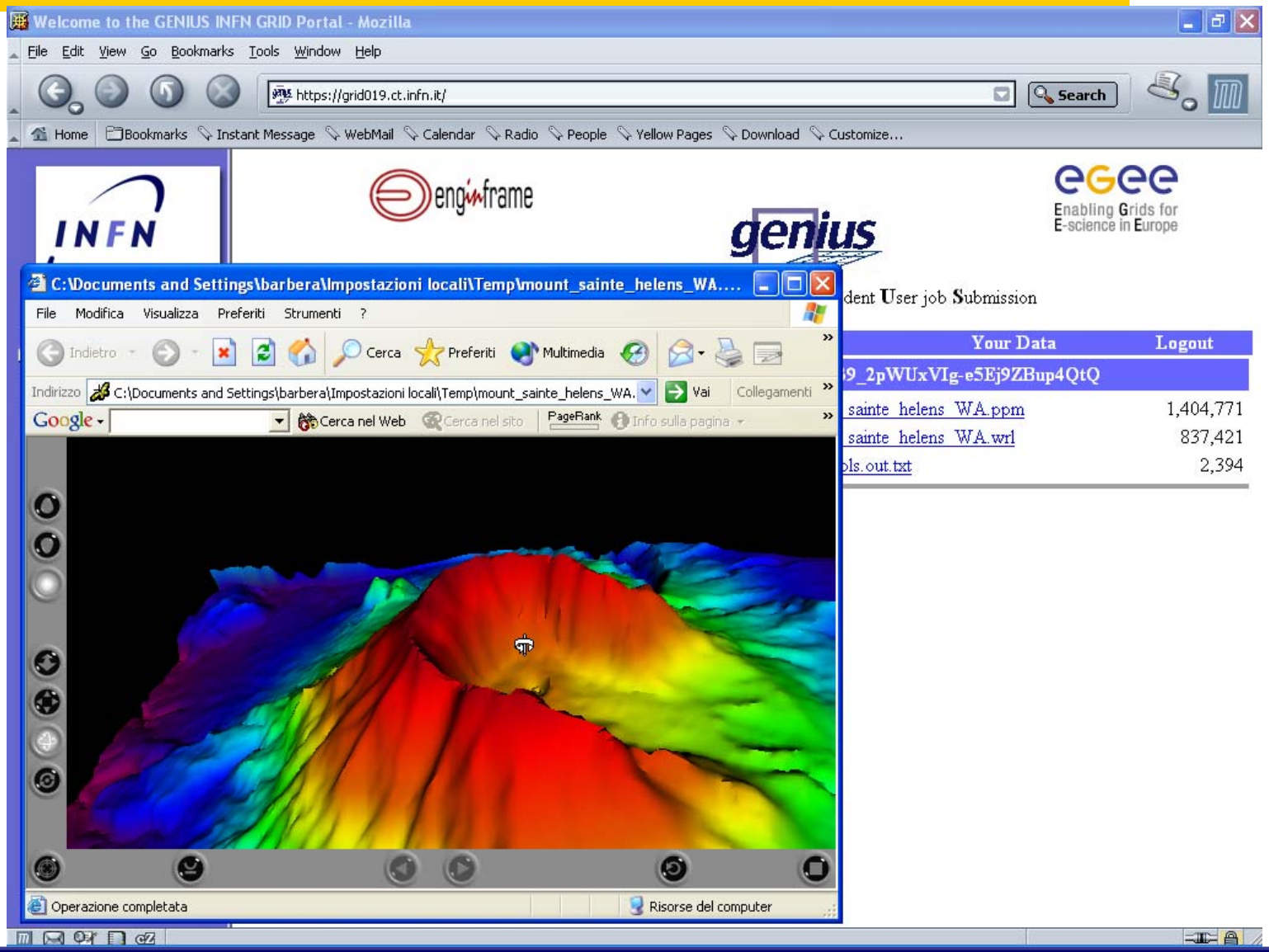
Earth Science example



Computational Chemistry Example

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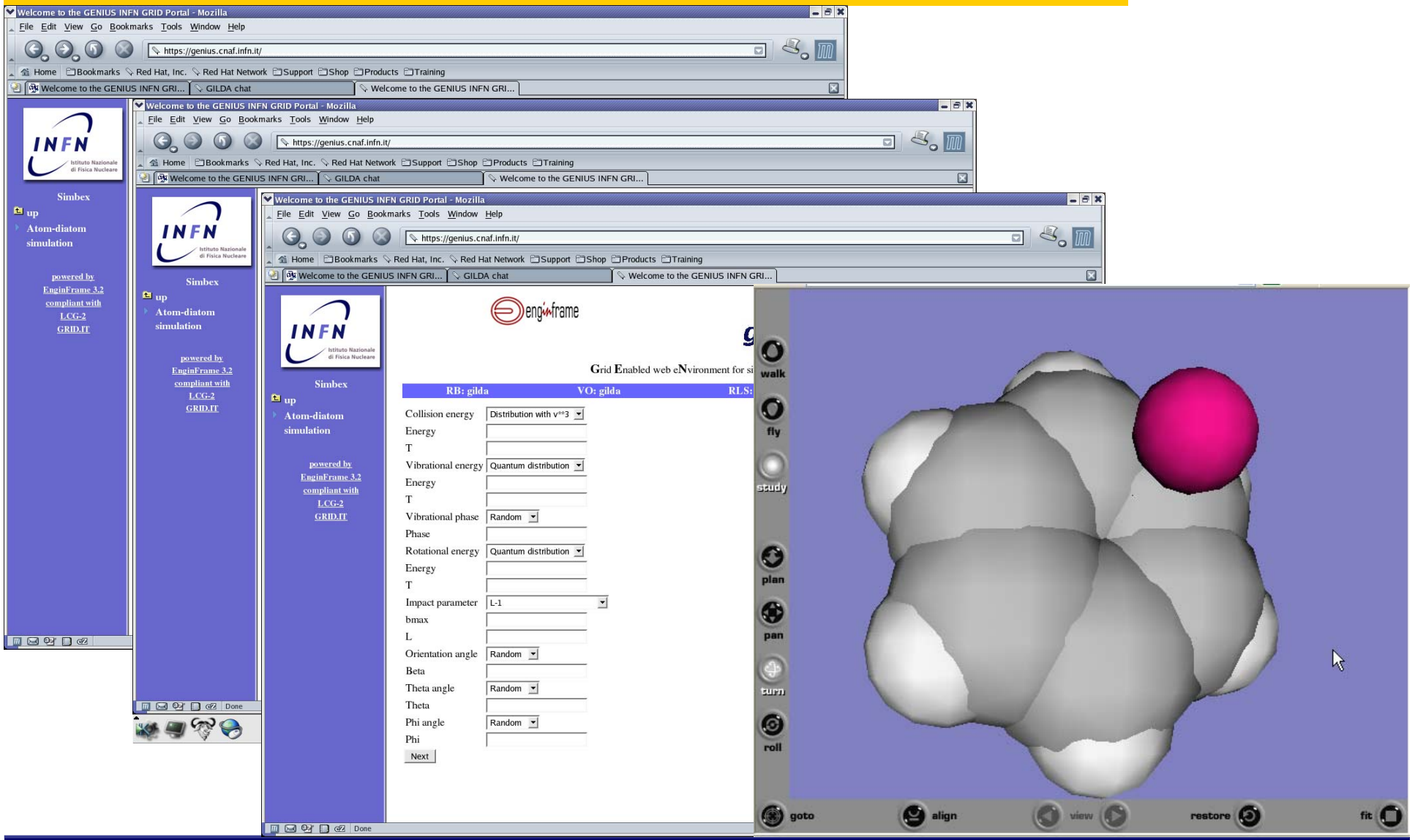

The GILDA Live User Interface (2/2)

The GILDA Tutorials/Demonstrations (https://gilda.ct.infn.it/tutorials.html)

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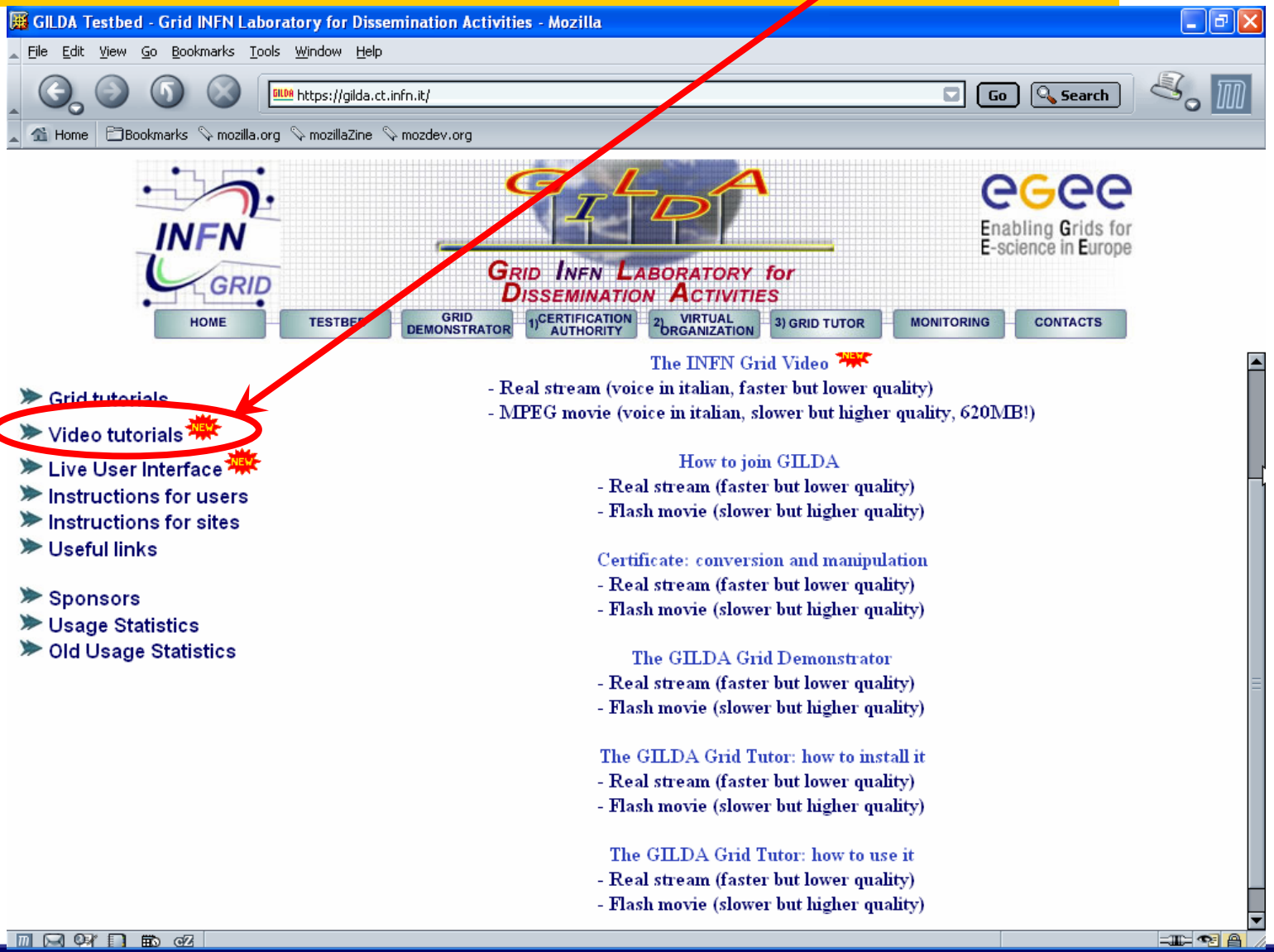
Edinburgh, 7 April 2004, slides, pictures
Tunis, 22-23 April 2004, pictures
Edinburgh, 26-28 April 2004, slides, pictures
CERN, 17-19 May 2004, pictures
Catania, 24-25 May 2004, home page, pictures
Dubna, 29 June - 2 July 2004, agenda
Edinburgh, 6 July 2004, home page
Catania, 14-16 July 2004, home page, 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 Haague, 15-17 November 2004
Merida, 15-20 November 2004, home page, agenda, slides
Tunis, 20 November 2004
Rio de Janeiro, 22-23 November 2004, home page, agenda
The Haague, 24 November 2004, agenda
CERN, 29-30 November 2004, agenda
Bochum, 7-10 December 2004
Istanbul, 9-10 December 2004

The GILDA Video Tutorials (https://gilda.ct.infn.it/video.html)



Conclusions and outlook for GILDA

Enabling Grids for E-science in Europe

- GILDA is a real virtual laboratory for dissemination of grid computing.
- It is a complete suite of grid elements (test-bed, CA, VO, monitoring system, web portal, live user interface) and applications fully dedicated to dissemination purposes and pre-porting of new applications to EGEE Infrastructure.
- GILDA runs and will run the last production (stable) version of the grid middleware (currently Grid.it 2.2.0 based on LCG 2.2.0).