



Enabling Grids for E-scienceE

Introduction to GILDA testbed and Genius portal

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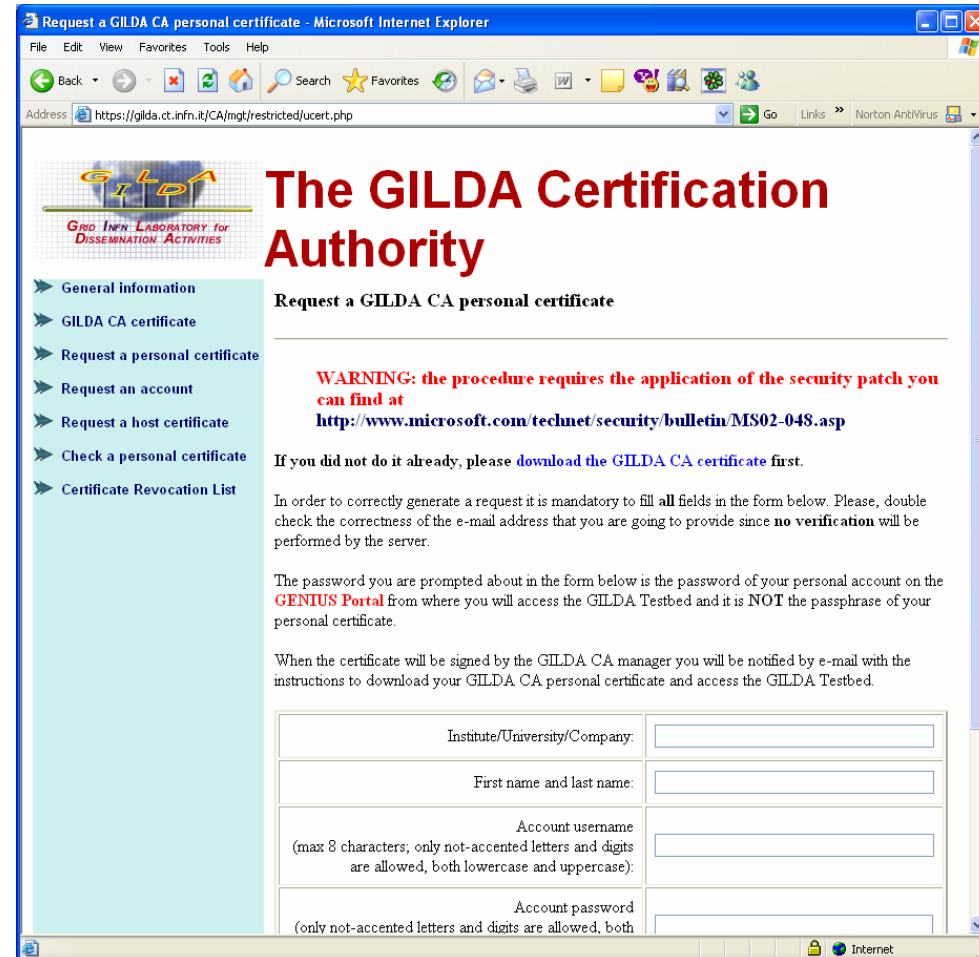
- **After a lot of information**
 - Users want to see a Grid testbed in action
 - Users want to try some examples in Grid
 - Users want to run their applications in Grid
- **GILDA is a complete suite of grid elements (test-bed, CA, VO, monitoring system, web portal) and applications**
- **Everyone can register and use GILDA for training and testing purposes**





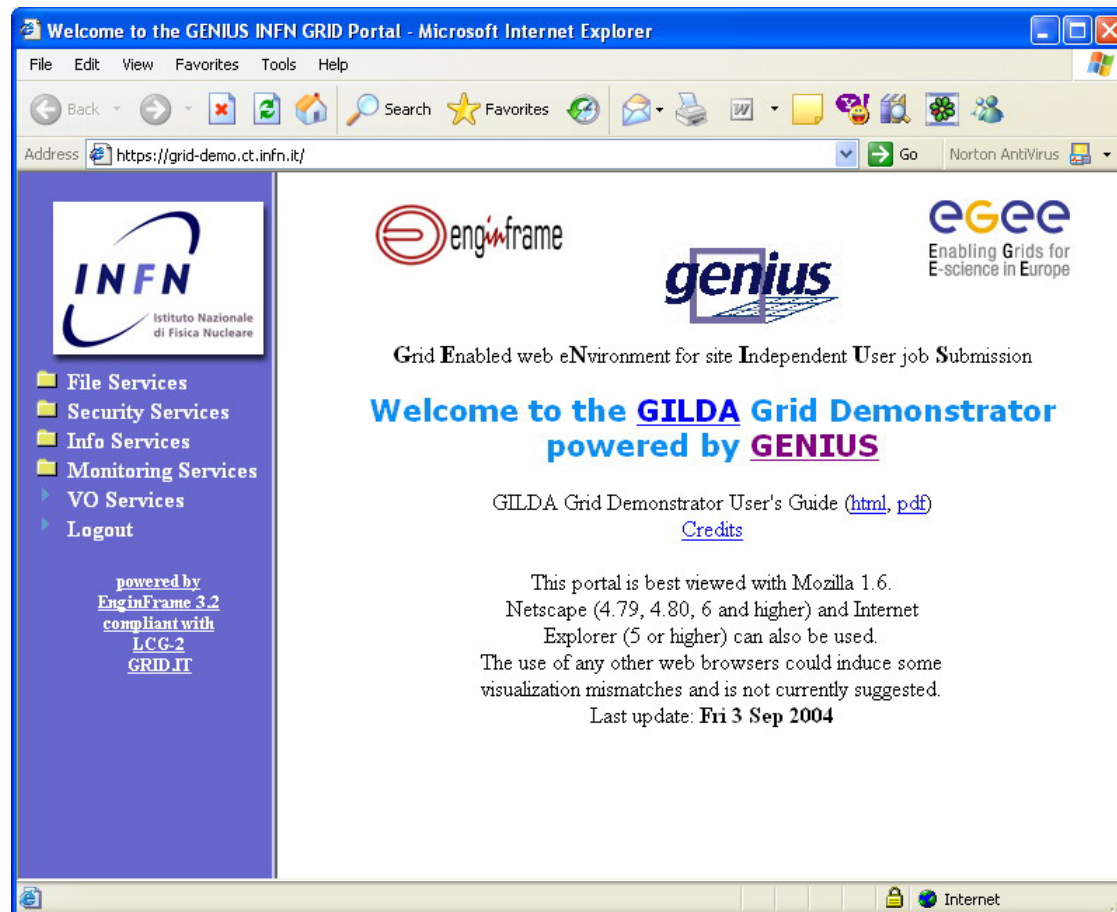
- **Grid Demonstrator portal <https://grid-demo.ct.infn.it>**
 - Simplified version of Genius portal
 - No registration required
 - Users can run only predefined jobs
- **Grid Tutor portal <https://grid-tutor.ct.infn.it>**
 - Full version of Genius portal
 - Registration required (for accounts and certificates)
 - Users can define own jobs
 - Advanced features: VNC, job editor, Triana workflow, certificate management
- **Command-line user interface “`ssh grid-tutor.ct.infn.it`”**
 - Only for registered users
 - Users have full access to all grid commands

- <https://gilda.ct.infn.it/CA/>
- Users can register and get Grid certificates (valid for 14 days)
- After that, users can use full version of Genius portal and/or command-line interface
- Please read carefully the instructions on the web pages

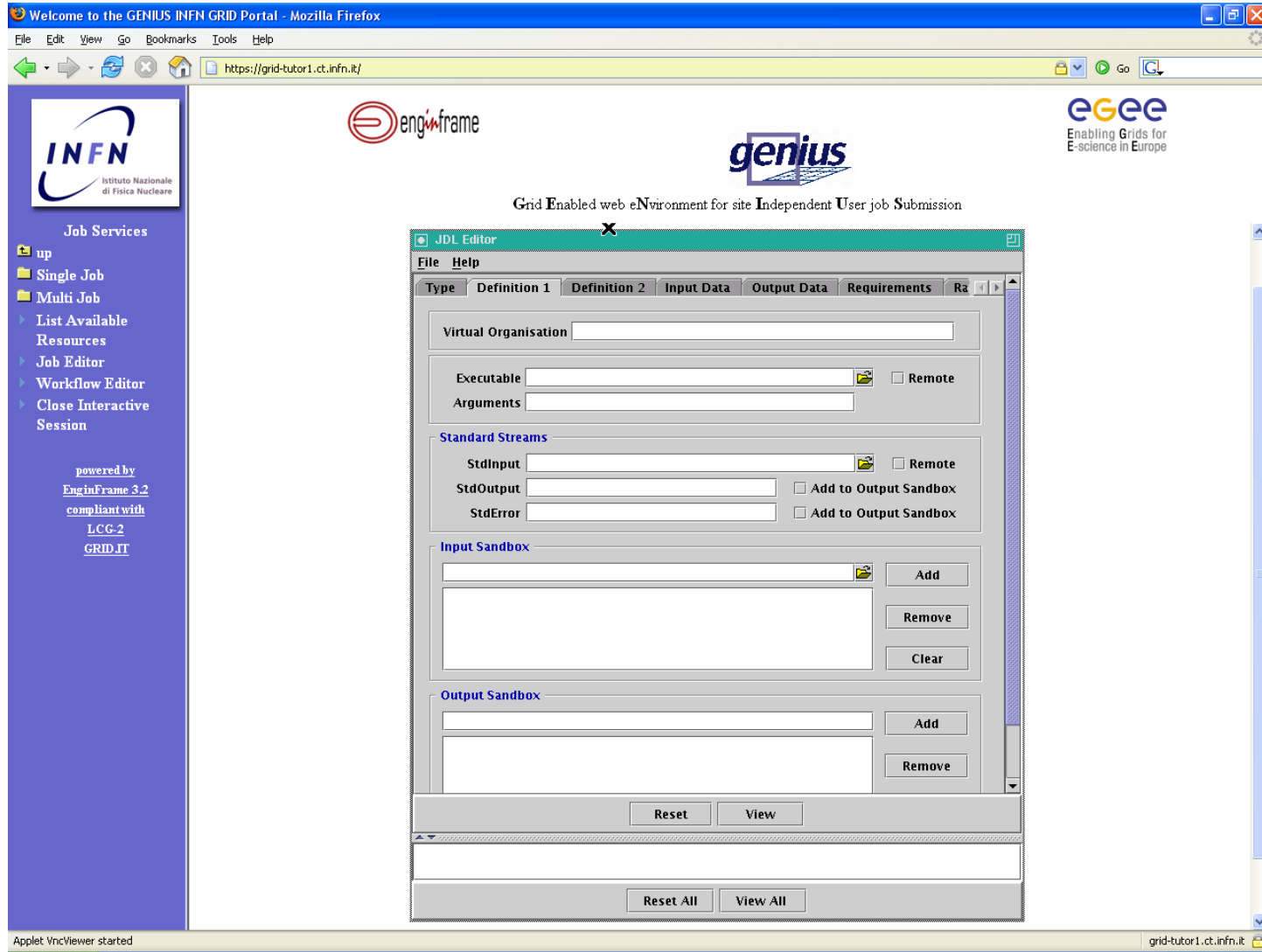


- **Command-line user interface is powerful but**
 - It takes some time to learn the commands
 - The interface depends on the middleware
 - It is difficult to control what the users really do
- **Portal is web-based user interface that**
 - Is accessible from everywhere
 - Has redundant security level
 - Is independent from middleware
 - Is easy to control what users can do

- Dedicated to GILDA testbed
- Based on XML technology
- Use command-line UI in background



Job definition (Creating JDL)



The screenshot shows a Mozilla Firefox browser window displaying the GENIUS INFN GRID Portal. The address bar shows the URL <https://grid-tutor1.ct.infn.it/>. The page features logos for INFN (Istituto Nazionale di Fisica Nucleare), EnginFrame, genius, and eGEE (Enabling Grids for E-science in Europe). The main heading reads "Grid Enabled web eNvironment for site Independent User job Submission".

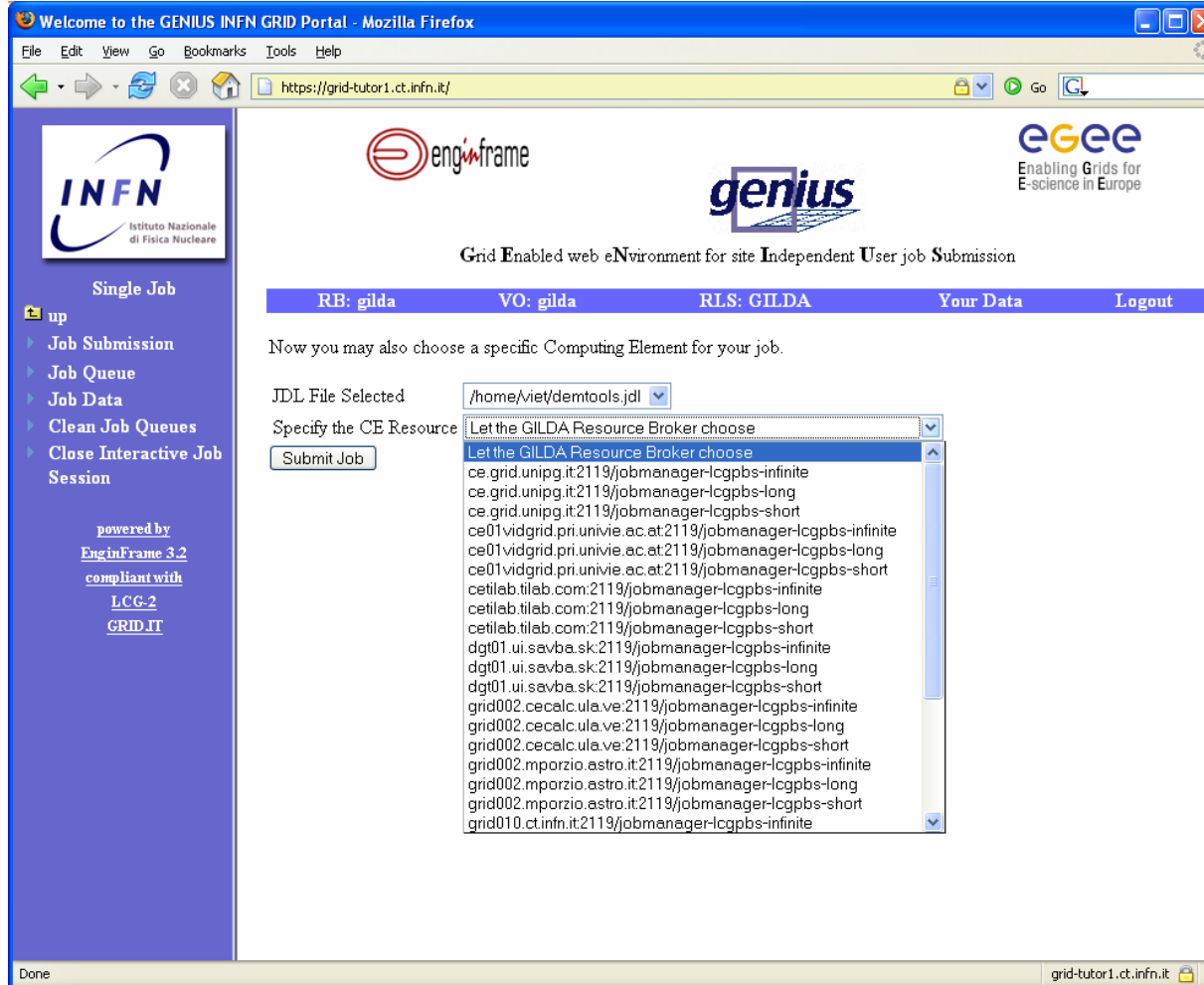
On the left, a "Job Services" sidebar lists options: up, Single Job, Multi Job, List Available Resources, Job Editor, Workflow Editor, and Close Interactive Session. Below this, it states "powered by EnginFrame 3.2 compliant with LCG-2 GRID.IT".

The central "JDL Editor" window is open, showing a form for job definition. It includes tabs for "Type", "Definition 1", "Definition 2", "Input Data", "Output Data", "Requirements", and "Ra". The form contains the following fields and controls:

- Virtual Organisation:
- Executable: Remote
- Arguments:
- Standard Streams:
 - StdInput: Remote
 - StdOutput: Add to Output Sandbox
 - StdError: Add to Output Sandbox
- Input Sandbox:
- Output Sandbox:




At the bottom of the editor, there are "Reset" and "View" buttons, and "Reset All" and "View All" buttons at the very bottom.

At the bottom of the browser window, a status bar shows "Applet VncViewer started" on the left and "grid-tutor1.ct.infn.it" on the right.



Welcome to the GENIUS INFN GRID Portal - Mozilla Firefox

https://grid-tutor1.ct.infn.it/

Grid Enabled web eNvironment for site Independent User job Submission

RB: gilda VO: gilda RLS: GILDA Your Data Logout

Now you may also choose a specific Computing Element for your job.

JDL File Selected:

Specify the CE Resource:

ce.grid.unipg.it:2119/jobmanager-lcgpbs-infinite

ce.grid.unipg.it:2119/jobmanager-lcgpbs-long

ce.grid.unipg.it:2119/jobmanager-lcgpbs-short

ce01vidgrid.pri.univie.ac.at:2119/jobmanager-lcgpbs-infinite

ce01vidgrid.pri.univie.ac.at:2119/jobmanager-lcgpbs-long

ce01vidgrid.pri.univie.ac.at:2119/jobmanager-lcgpbs-short

cetilab.tilab.com:2119/jobmanager-lcgpbs-infinite

cetilab.tilab.com:2119/jobmanager-lcgpbs-long

cetilab.tilab.com:2119/jobmanager-lcgpbs-short

dgt01.ui.savba.sk:2119/jobmanager-lcgpbs-infinite

dgt01.ui.savba.sk:2119/jobmanager-lcgpbs-long

dgt01.ui.savba.sk:2119/jobmanager-lcgpbs-short

grid002.cecalc.ula.ve:2119/jobmanager-lcgpbs-infinite

grid002.cecalc.ula.ve:2119/jobmanager-lcgpbs-long

grid002.cecalc.ula.ve:2119/jobmanager-lcgpbs-short

grid002.mporzio.astro.it:2119/jobmanager-lcgpbs-infinite

grid002.mporzio.astro.it:2119/jobmanager-lcgpbs-long

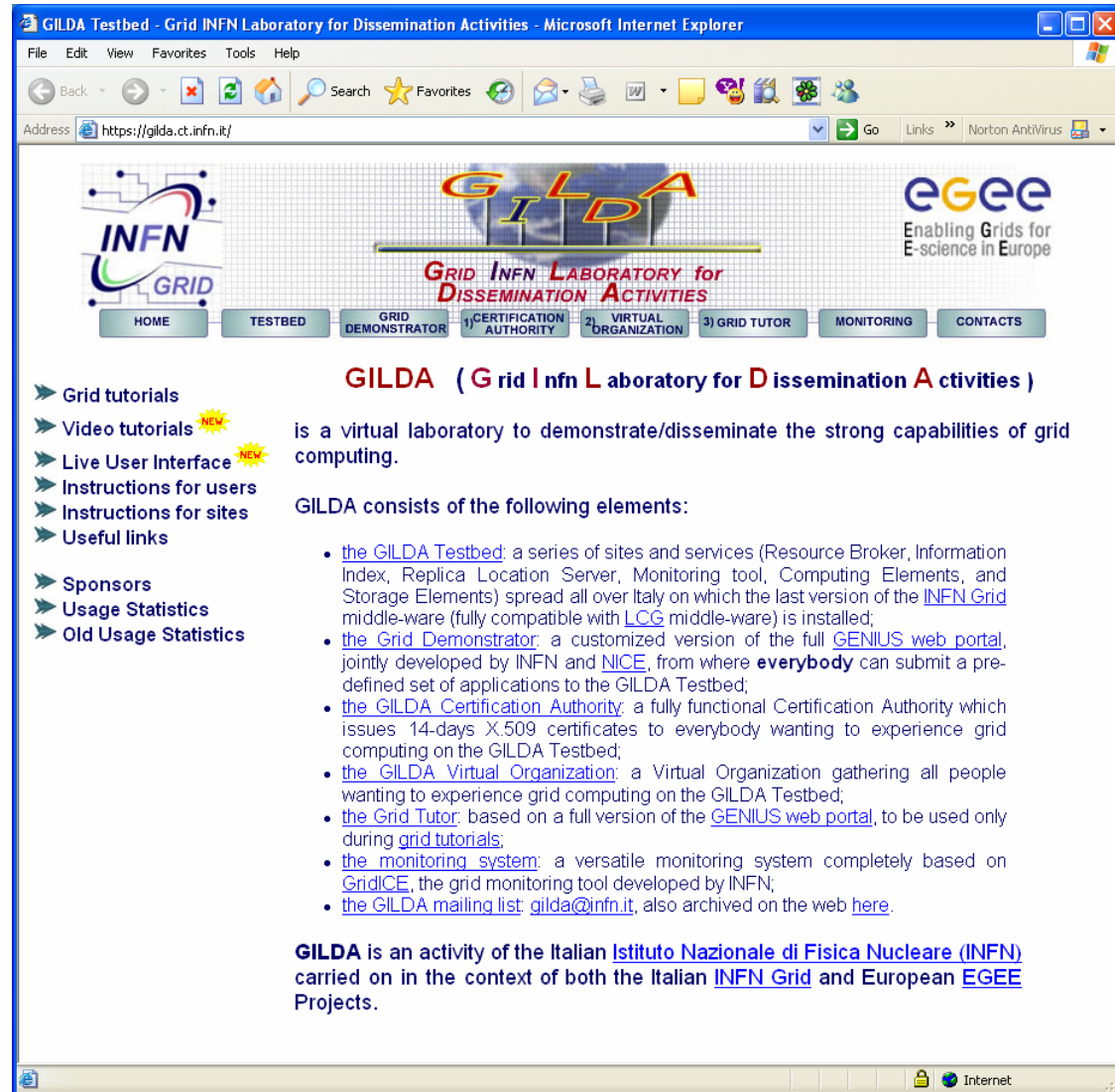
grid002.mporzio.astro.it:2119/jobmanager-lcgpbs-short

grid010.ct.infn.it:2119/jobmanager-lcgpbs-infinite

Done grid-tutor1.ct.infn.it

More information at
<https://gilda.ct.infn.it/>

- Video tutorials
- Instructions for users
- LiveCD for User Interface



GILDA (Grid Infn Laboratory for Dissemination Activities)

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

GILDA consists of the following elements:

- [the GILDA Testbed](#): a series of sites and services (Resource Broker, Information Index, Replica Location Server, Monitoring tool, Computing Elements, and Storage Elements) spread all over Italy on which the last version of the [INFN Grid](#) middle-ware (fully compatible with [LCC](#) middle-ware) is 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;
- [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](#).

GILDA is an activity of the Italian [Istituto Nazionale di Fisica Nucleare \(INFN\)](#) carried on in the context of both the Italian [INFN Grid](#) and European [EGEE](#) Projects.

- **Note that GILDA is dedicated for training and dissemination purposes**
 - Do not overload it with long-time jobs or too many jobs
- **For large applications, please join EGEE project and run your applications on EGEE production testbed**
- **Contact us**
 - If you need more information about Grid computing and EGEE
 - If you want to join EGEE project
 - If you have a large application and want to port it to Grid
 - Or for any other Grid-related problems



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More information at demonstration

www.eu-egee.org

