

GILDA t-Infrastructure: report and future perspectives

*Emidio Giorgio
INFN -- EGEE NA3
EGEE'09, Barcelona*

- **What is a training infrastructure ?**
- **the GILDA project throughout EGEE projects**
- **Future perspectives**
 - training in IGI
 - technical improvements

- **A t-Infrastructure is an e-infrastructure adapted for the needs of education and training activities**
 - emulates production infrastructure on **smaller scale**
 - simplified access procedure
 - loose identity check for requester
 - training-dedicated facilities
 - development of specific procedures for training events
 - *"Generic" certificates expressly created for tutorials*
 - dedicated support system
 - web how-tos, wikis, guides....
 - virtual eLearning environment
- **Students initial impact with grid difficulties is mitigated and allows trainers and trainee to focus on the didactical aspects**

Statistics of certificates

TOTAL CERTIFICATES	14295
PERSONAL CERTIFICATES	
TOTAL	11601
REQUESTED ONE TIME	5368
REQUESTED MORE TIMES	1975
HOST CERTIFICATES	
TOTAL	2460
REQUESTED ONE TIME	1954
REQUESTED MORE TIMES	229



Makes the complex grid authentication procedures easier both for "direct" and "self-paced" learners.

default certificate lifetime is 14 days

~35% of personal certificates requested have been renewed at least once!

successfully used in tutorial and Schools!

Statistics of certificates

TOTAL CERTIFICATES	14295
PERSONAL CERTIFICATES	
TOTAL	11601
REQUESTED ONE TIME	5368
REQUESTED MORE TIMES	1975
HOST CERTIFICATES	
TOTAL	2460
REQUESTED ONE TIME	1954
REQUESTED MORE TIMES	229

VMSMonitor >> VO view >> Single VO >> Table::gilda

Select WMSs

- GILDA jobs statistics over last year (simplified url)

From to

WMS	SUBMITTED	CONDOR	DONE	ABORTED	COLLECTIONS
gilda-wms-01.ct.infn.it	12020	13402	7746	1128	455
gilda-wms-02.ct.infn.it	5156	5683	3238	615	282
glite-lb.ct.infn.it	5499	6060	4081	442	341
infn-wms-01.ct.pi2s2.it	3	3	1	2	0
prod-wms-01.ct.infn.it	1	1	0	0	0
unict-dmi-wms-01.ct.pi2s2.it	3	1	1	5	0
wms001.domain	0	0	0	0	0
wms002.domain	0	0	0	0	0
wms003.domain	0	0	0	0	0
TOTAL	22682	25150	15067	2192	1078

voms admin for VO: gilda Current user: Emidio Giorgio

[Register!](#)
[VO management](#)
[Subscriptions](#)
[Configuration](#)
[Other VOs on this server](#)

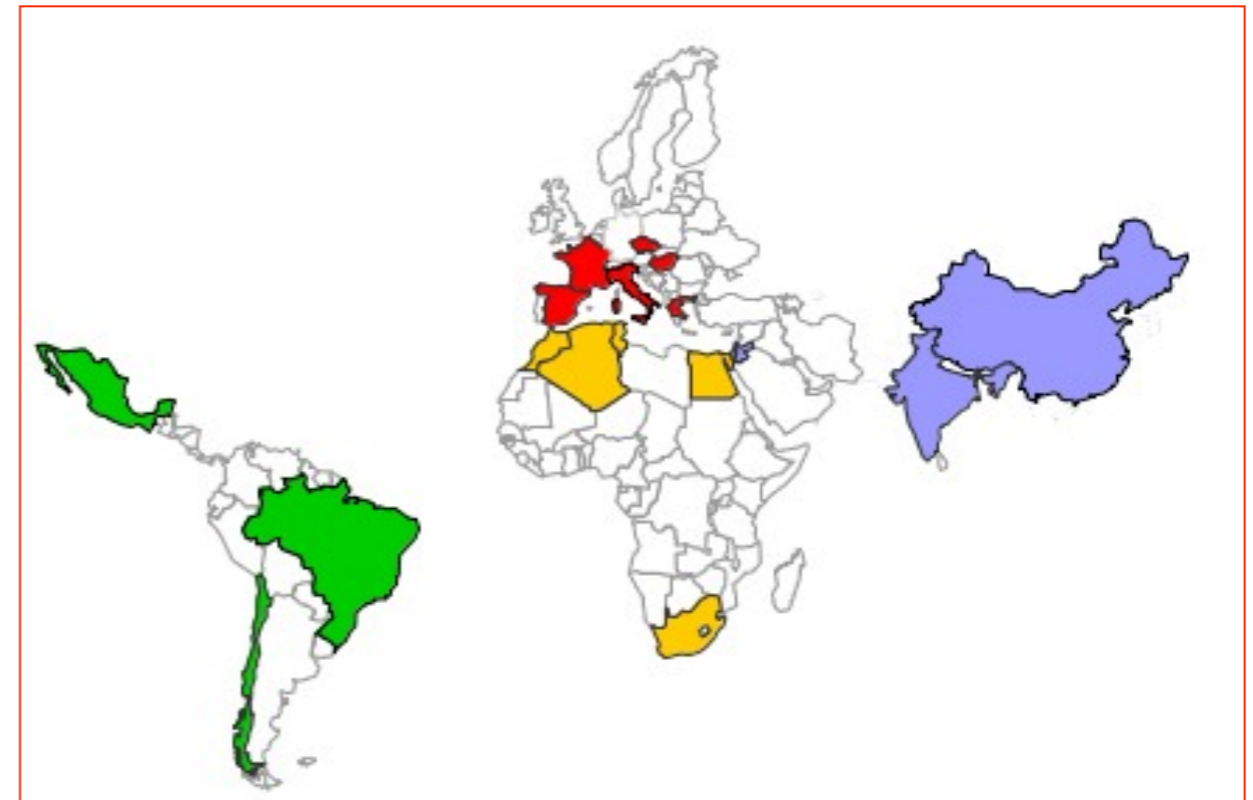
1-10 of **1427** > last

- Number of GILDA VO registered users (URL)

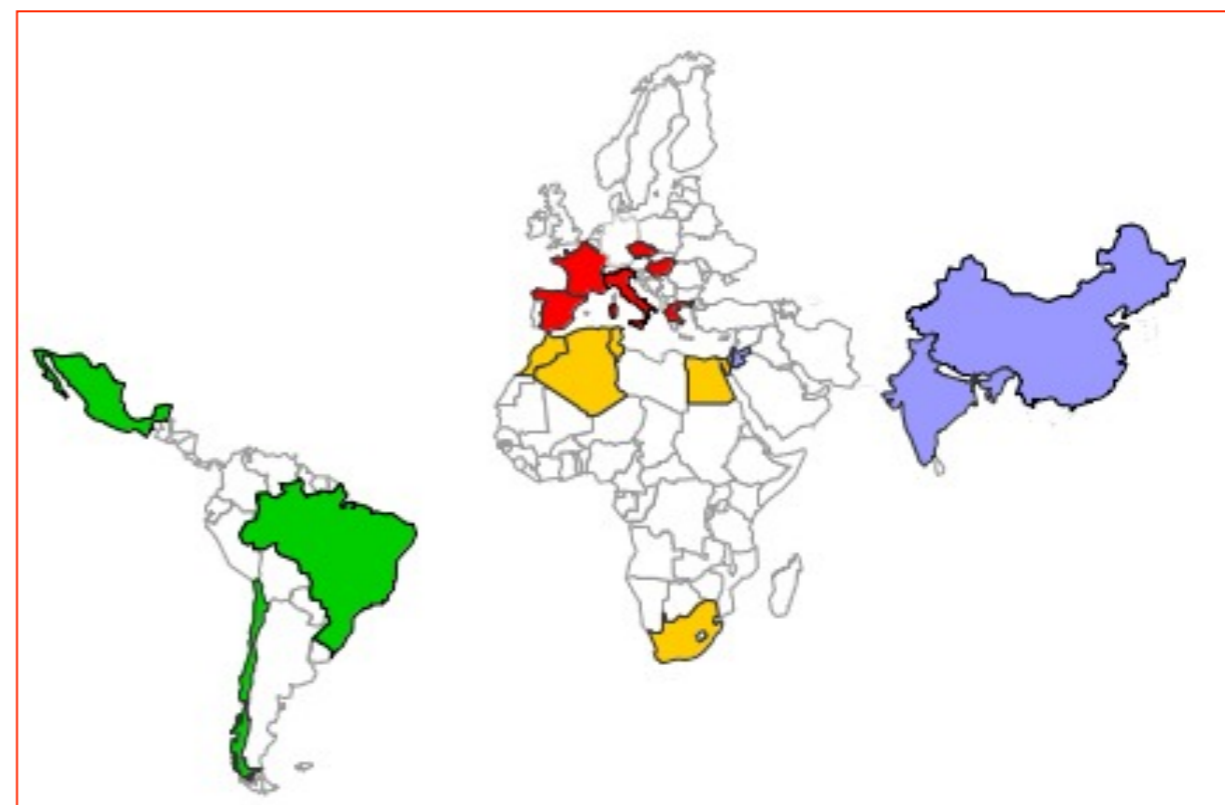
- **In 2009** (as of Sept, 18th), **58 training events**
 - Among them 3 international grid schools and 3 university courses :**
 - Máster en Computación Paralela y Distribuida, Universidad Politecnica de Valencia
 - Corso di Griglie Computazionali, Università degli Studi di Ferrara (2008-09 and 2009-10)
 - 2nd International Winter School on Grid Computing, on-line course, February 16th - March 30th
 - 3rd Biomed Grid School, Varenna, Italy, 11th-15th May
 - 7th International Summer School on Grid Computing, Sophia Antipolis, France, July 5th-17th
- **Complete list available here : <https://gilda.ct.infn.it/tutorials.html>**

- **GILDA effectively acts as a t-Infrastructure for several european grid projects, providing resources and knowledge for training events**
- **Besides training events, GILDA is available around the clock for grid novices, with dedicated facilities**
 - often used by novices for initial porting of application
- **The GILDA t-Infrastructure is currently formed by half a dozen sites, sometimes managed on **best effort** basis**
 - *sites are not always responsive on upgrades and submitted tickets*
- **Efforts on documentation provision and facilities offered to grid beginners**
 - GILDA tWiki
 - Service monitoring
 - Support System

- **“Exchange Programme to advance e-Infrastructure Know-How” (EPIKH)**
 - EU FP7- Marie Curie Actions – People - International Research Staff Exchange Scheme (IRSES)
- **Consortium “numbers”:**
 - 23 partners;
 - 18 countries;
 - 4 continents (Africa, Latin America, Asia, Europe);
 - 115 persons involved;
 - >650 researcher-months;
 - >500 secondments;
- **Duration: March, 1, 2009 – February, 28, 2013 (48 months)**
- **EC contribution: 1,188,000 €**

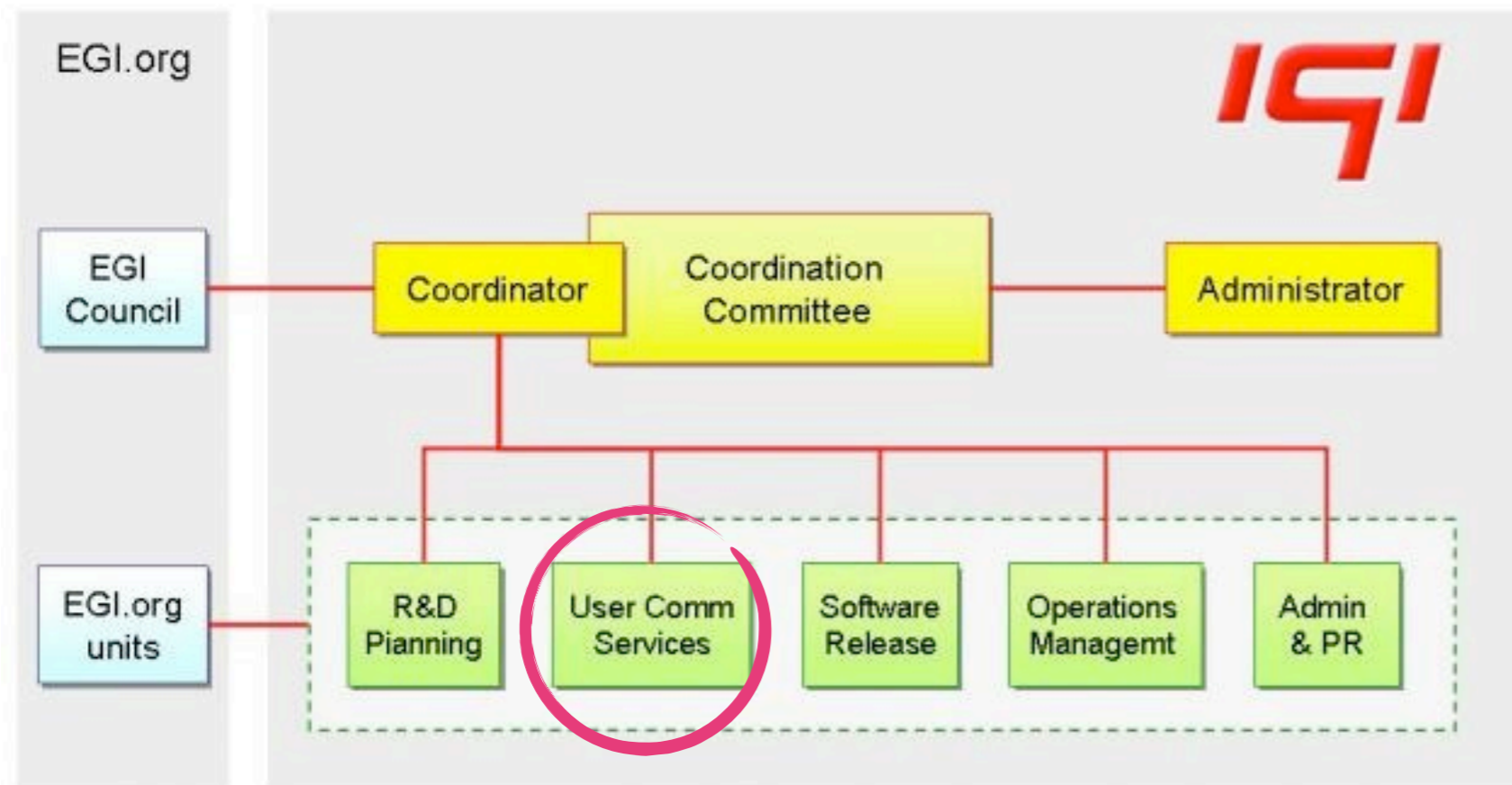


- **“Exchange Programme to advance e-Infrastructure Know-How” (EPIKH)**
 - EU FP7- Marie Curie Actions – People - International Research Staff Exchange Scheme (IRSES)
- **Consortium “numbers”:**
 - 23 partners;
 - 18 countries;
 - 4 continents (Africa, Latin America, Asia, Europe);
 - 115 persons involved;
 - >650 researcher-months;
 - >500 secondments;
- **Duration: March, 1, 2009 – February, 28, 2013 (48 months)**
- **EC contribution: 1,188,000 €**



www.epikh.eu

- **EGI will not fund a training Infrastructure**
 - Italian NGI will have an unit for training and user support, where GILDA activities are expected to continue
 - Each NGI will support its own training (even on middleware different than gLite) using national production resources
 - *Formation of a training and dissemination SSC (CUE) is under discussion*



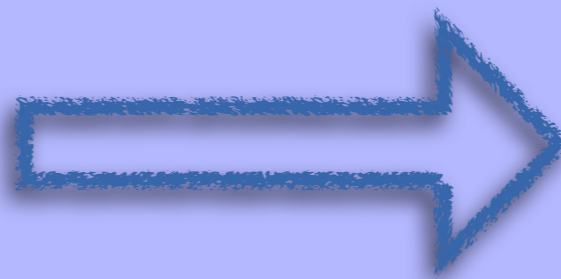
- **EGI will not fund a training Infrastructure**
 - Italian NGI will have an unit for training and user support, where GILDA activities are expected to continue
 - Each NGI will support its own training (even on middleware different than gLite) using national production resources
 - *Formation of a training and dissemination SSC (CUE) is under discussion*

- **Current training resources are being integrated into production testbed**
 - Same professional monitoring as production sites
 - Supporting training would become a decision about enabling or not the training VO
 - Issues for deploying **GILDA CA** on production testbed
 - Development of scripts for switch on/off of support to training
 - Adoption of production ticketing system (GGUS)

- **EGI will not fund a training Infrastructure**

- Italian NGI will have an unit for training and user support, where GILDA activities are expected to continue
- Each NGI will support its own training (even on middleware different than gLite) using national production resources
 - *Formation of a training and dissemination SSC (CUE) is under discussion*

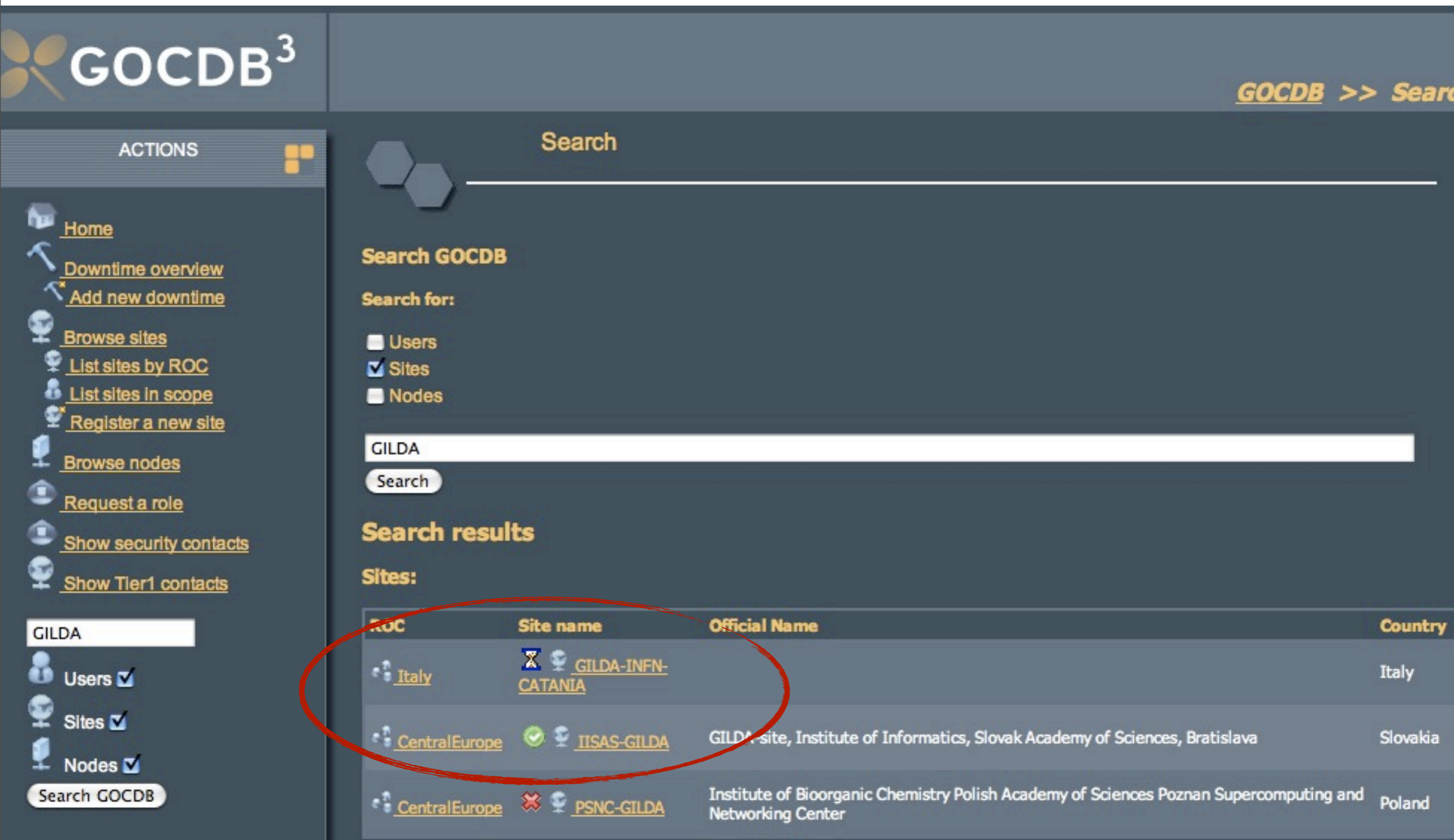
- **Current training resources are being integrated into production testbed**



- Same professional monitoring as production sites
- Supporting training would become a decision about enabling or not the training VO
- Issues for deploying **GILDA CA** on production testbed
 - Development of scripts for switch on/off of support to training
- Adoption of production ticketing system (GGUS)

- **Training sites registered on GOCDB**

- https://edms.cern.ch/file/754604/5/Site-ROC_association_1.0.pdf (contact your ROC for info)



The screenshot shows the GOCDDB 3 search interface. On the left is a navigation menu with options like Home, Downtime overview, Add new downtime, Browse sites, List sites by ROC, List sites in scope, Register a new site, Browse nodes, Request a role, Show security contacts, and Show Tier1 contacts. The main content area is titled 'Search' and contains a search form with the text 'GILDA' entered. Below the search form, the 'Search results' section displays a table of sites. A red oval highlights the first row of the table, which corresponds to the GILDA site in Catania, Italy.

Search results table:

ROC	Site name	Official Name	Country
Italy	GILDA-INFN-CATANIA		Italy
CentralEurope	IISAS-GILDA	GILDA site, Institute of Informatics, Slovak Academy of Sciences, Bratislava	Slovakia
CentralEurope	PSNC-GILDA	Institute of Bioorganic Chemistry Polish Academy of Sciences Poznan Supercomputing and Networking Center	Poland

- (<https://goc.gridops.org/>)

- **Virtualization techniques have been widely exploited for training purposes**
 - Installation tutorials
 - working images of grid services available to everyone for download
 - Test of new releases/services/configurations
 - multi middleware support
 - Production services backup
- **Machines equipped with public IP address and host certificates are permanently available for installation tutorials**
- **With the use of specific tools like Adobe Connect® training itself can be virtualized**
 - physical participation not strictly necessary
 - lessons/tutorial available also for off-line use