

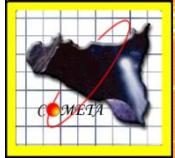
La Grid come servizio di IDEM alla portata di tutti

Roberto Barbera (roberto.barbera@ct.infn.it)

Università di Catania & INFN & Consorzio COMETA

Conferenza GARR 2011

Bologna, 09.11.2011



- **Driving considerations**
- **The Science Gateway paradigm:**
 - Architecture
 - Authentication and Authorisation
 - Access workflow
 - The «Grid Engine»
- **Science Gateways in action**
- **Summary and conclusions**



e-Infrastructure at «global» scale

eGEE
Enabling Grids
for E-sciencE

>340 sites in 57 countries
~337,000 CPU cores
>220 PB of storage
~1 million jobs/day
~20,000 users in ~280 VOs

Scheduled = 21539
Running = 25374

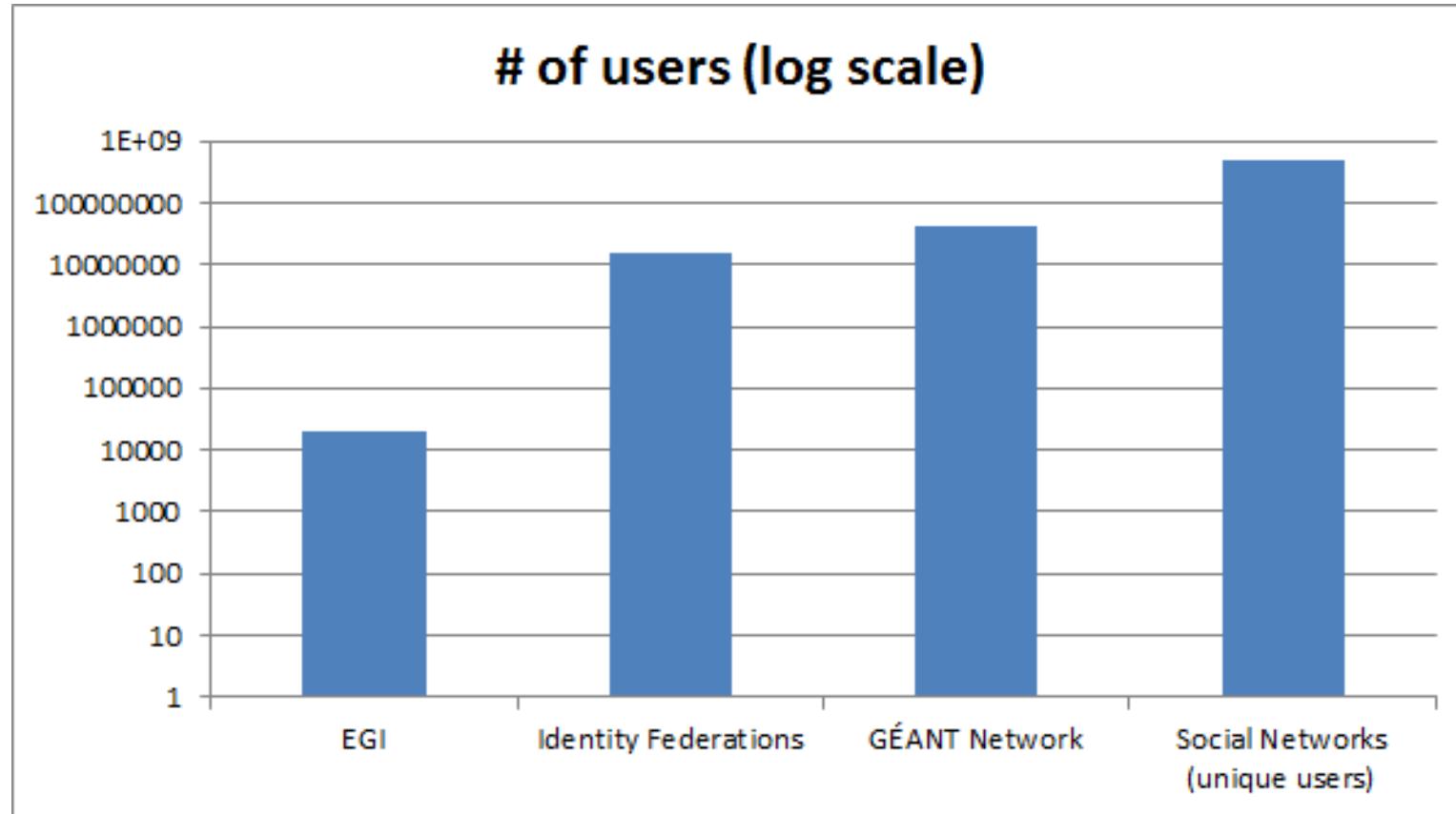
Are 20,000 users a big number ?

21:13:50 UTC

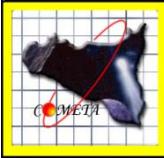
GridPP
UK Computing for Particle Physics



Some interesting figures



If one considers that, at least in the last 10 years, grids and networks have got quite the same level of funding, it is clear that grids haven't been so far a good investment in terms of cost per user.



The reason is that using Grids
is not straightforward 😞

```
Type = "Job";
JobType = "MPI";
MPIType = "MVAPICH2_PGI706";
CpuNumber = 16;
MPIGranularity = 4;
Executable = "flash2";
StdOutput = "mpi.out";
StdError = "mpi.err";
InputSandbox =
    {"watchdog.sh", "mpi.pre",
     "1e0.rates", "flash2"};
OutputSandbox =
    {"mpirun.log"};
Requirements =
    O1,per;
RetryCount = 0;
```

JDL

```
echo Staging Input Data \Courtesy of European Space  
Agency\);  
#edg-rm -vo=gilda copyFile lfN:$1.N1 file://$PWD/$1.N1;  
leg-cp --vo=gilda lfN:$1.N1 file://$PWD/$1.N1;  
echo Staging Application;  
gunzip beam20.tar.gz;  
tar xvf beam20.tar;  
cd beam-2.0/bin;  
echo Starting Application;  
./$ds2lpj-ASAR-run.sh $1;  
mv $1-b*.jpg ../../  
cd ../../  
rm -fr beam-2.0;  
rm -fr $PWD/$1.N1;  
rm -fr $PWD/beam-2.0;  
echo Beam-2.0 Application completed
```

Scripts

Scripts

CLI

JDL

```
PICH";  
VAPICH2_PGT06";  
16;  
y=4;  
flash2";  
mpi.out";  
pi.en";  
tchdog.sh"; "mpi.pre.sh";  
atet"; "flash2";  
tar xvf beam20.tar;  
cd beam-2.0/bln;  
echo Starting Application;  
./pds2jpg-ASAR-run.sh $1;  
mv $1-b*.jpg ../../  
cd ../../  
rm -fr beam-2.0;  
rm -fr $PWD/$1.N1;  
rm -fr $PWD/ben;  
echo I am done.
```

Scripts

GSI

Request for the certificate
User's identity



A small icon of a person holding a large speech bubble that says "Request".

Request for the certificate

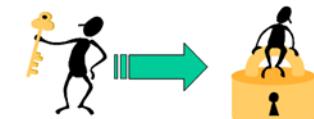
A simple icon of a graduation cap (mortarboard) with a tassel.

Certificate is emitted by the CA

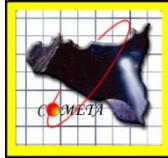
GSI



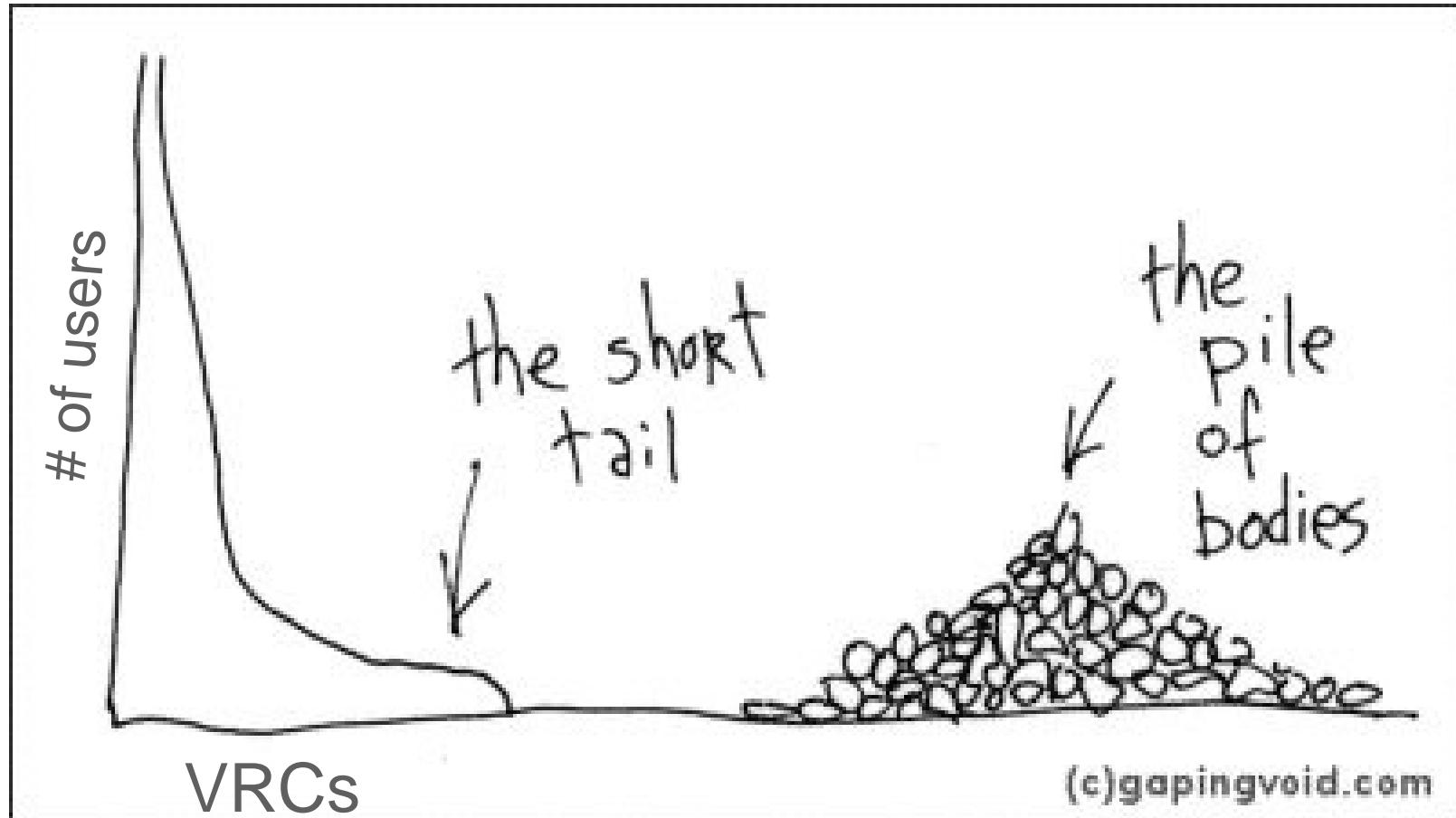
User's identity is confirmed by the RA



Certificate is used as an access key to the grid



Another consideration...

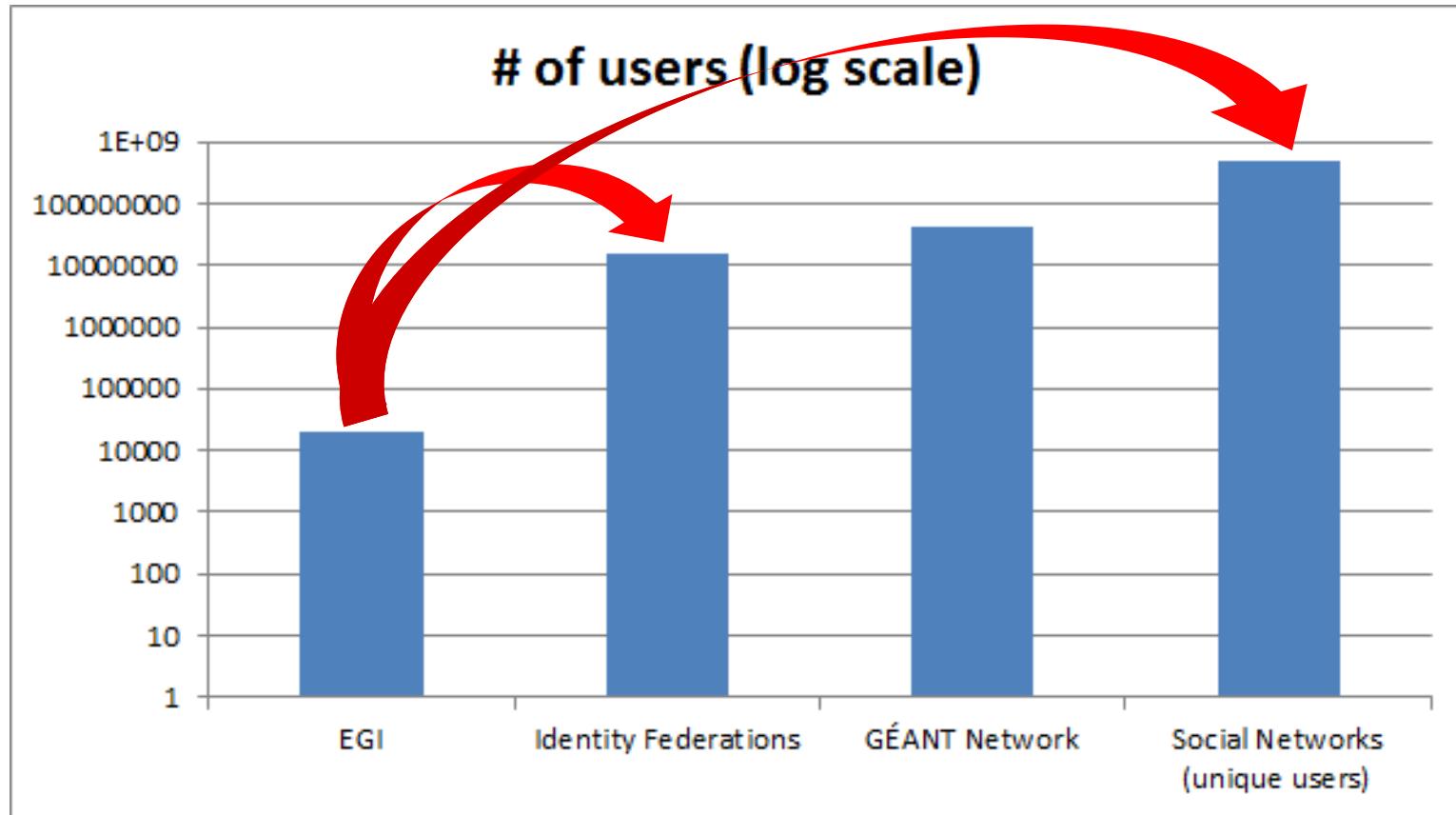


There is a huge number of non IT-experts out there who do not belong to any constituted Virtual Research Community.

How can we attract them ?



I have a dream...



Can we increase the number of potential grid users by a factor of 1,000...
... or even by a factor of 25,000 and more ?



A new paradigm: the Science Gateway



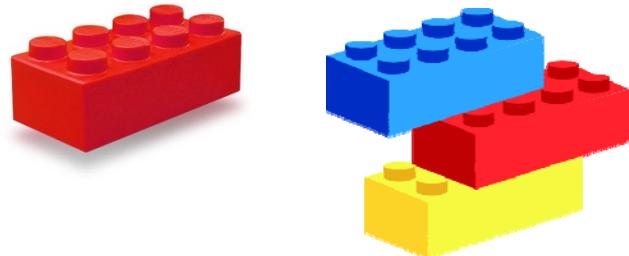
“A Science Gateway is a community-developed set of tools, applications, and data that is integrated via a portal or a suite of applications, usually in a graphical user interface, that is further customized to meet the needs of a specific community.”

Teragrid

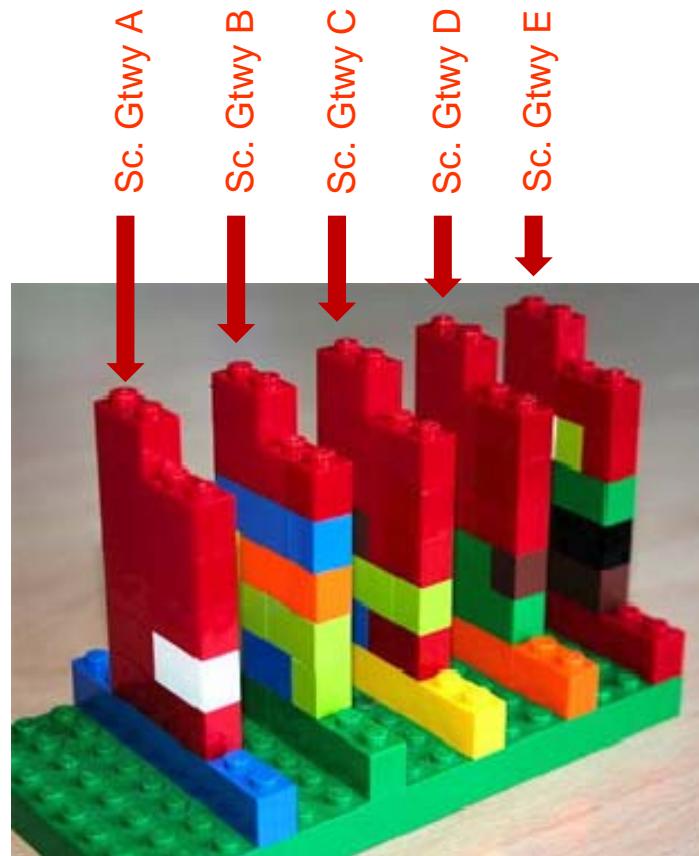




Primary requirement: building Science Gateways should be like playing with

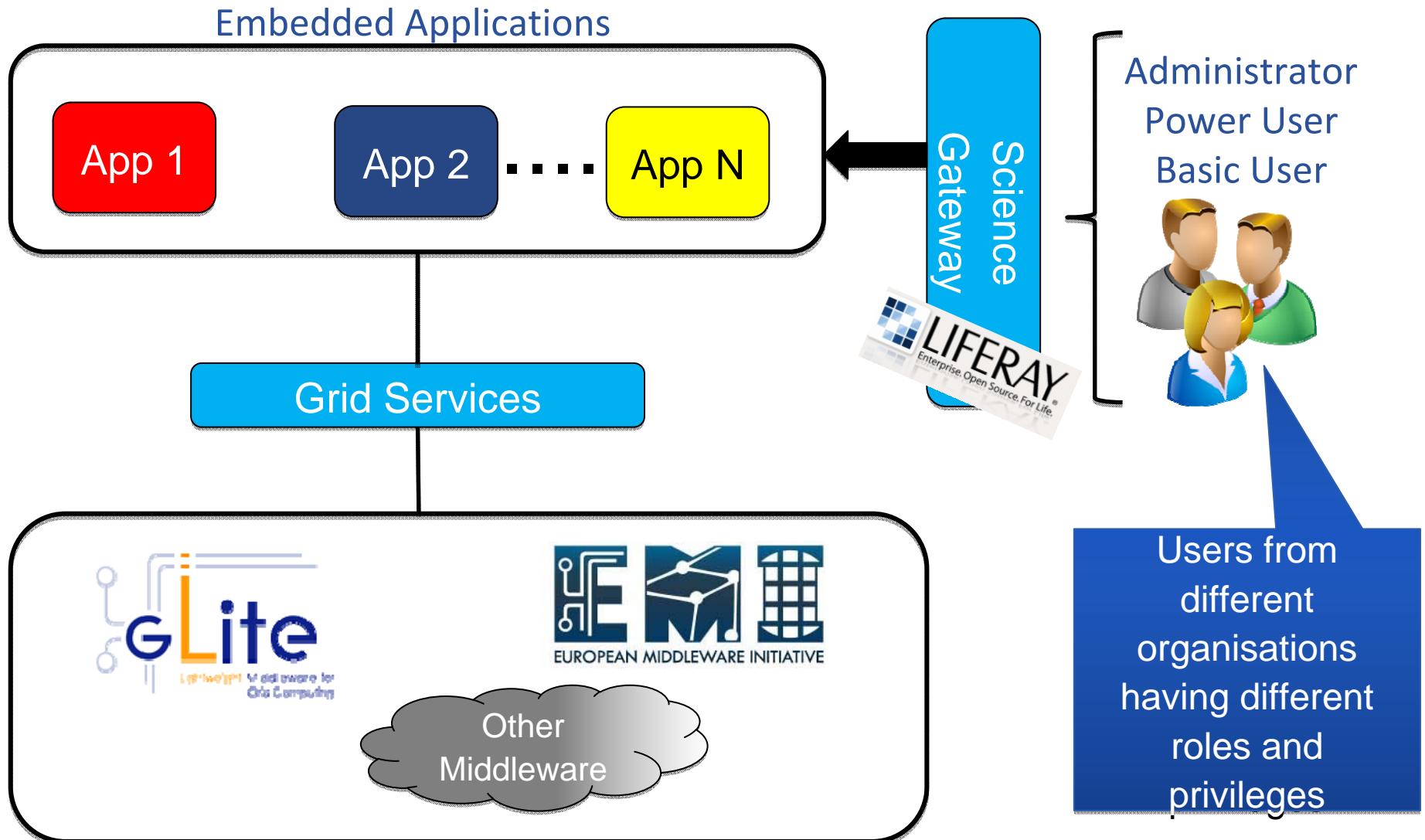


- Standards
- Simplicity
- Easiness of use
- Re-usability



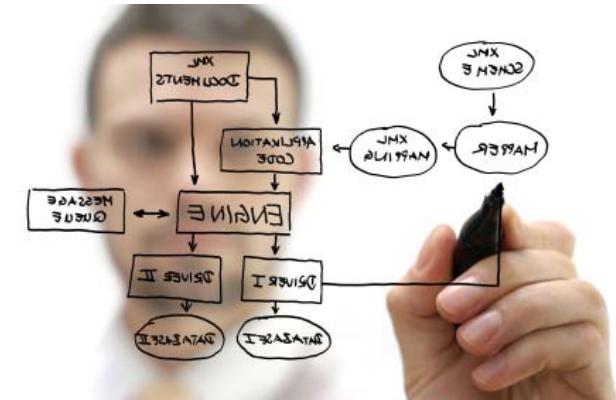


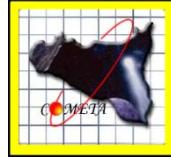
Our reference model



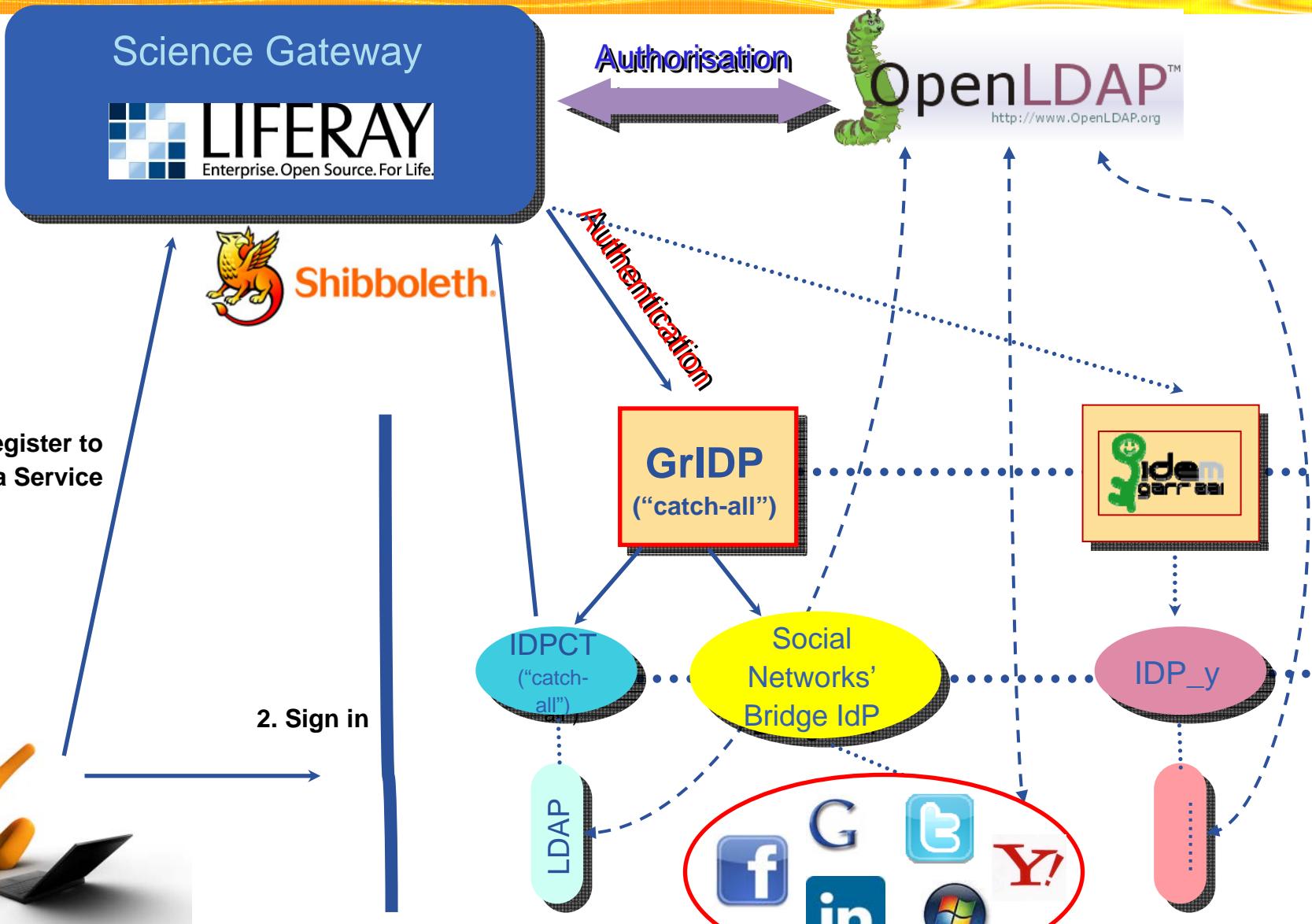


- Award winning, highly-configurable, scalable, open source portal framework;
- Compatible with JSR 168/286 standards and based on modern web 2.0 technologies;
- Examples of Liferay services:
 - Portal;
 - CMS;
 - eCollaboration and “social” software.





AuthN & AuthZ Schema



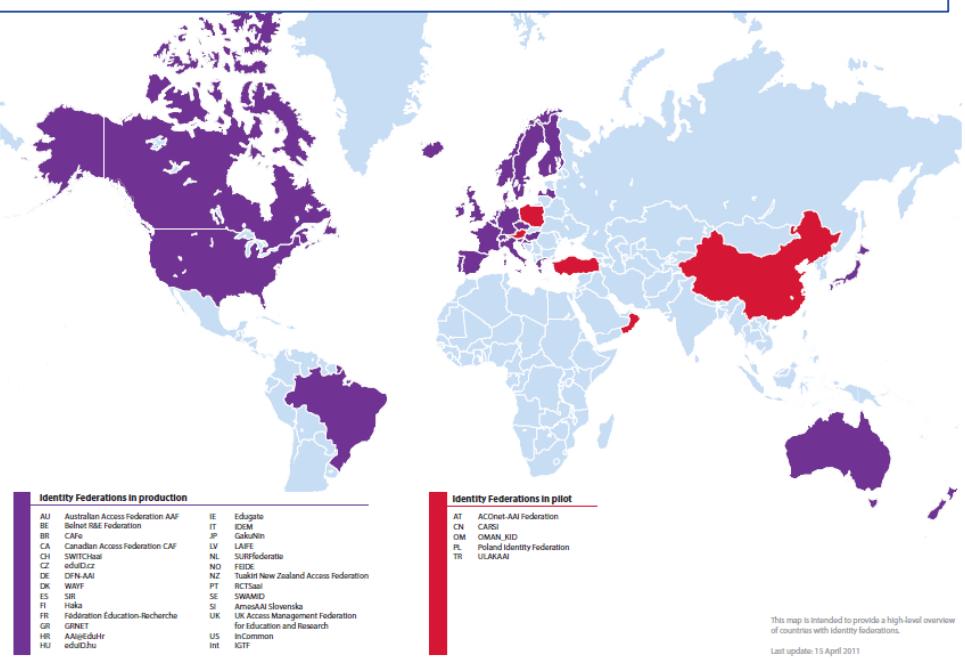
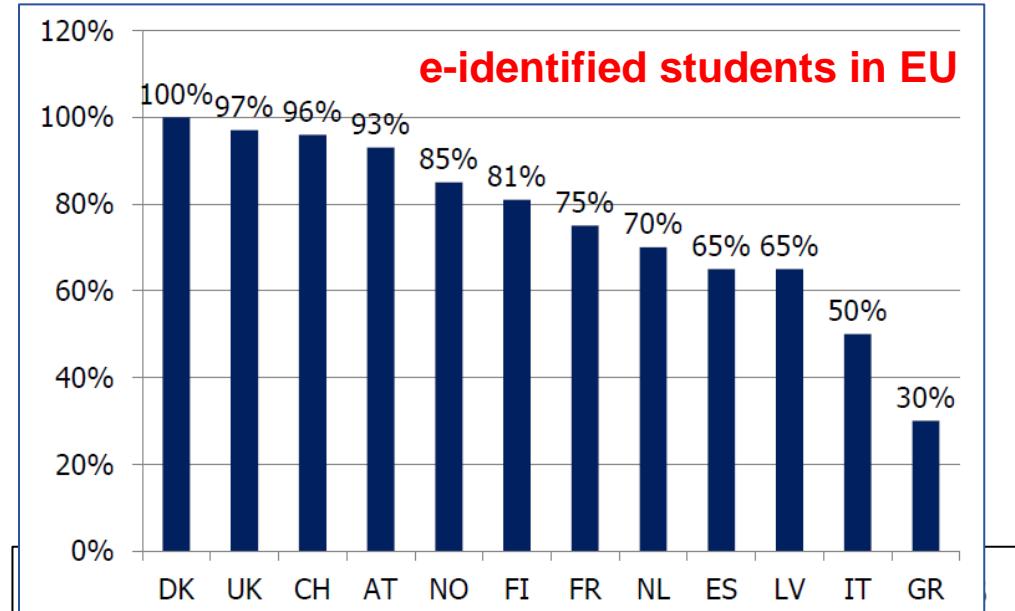
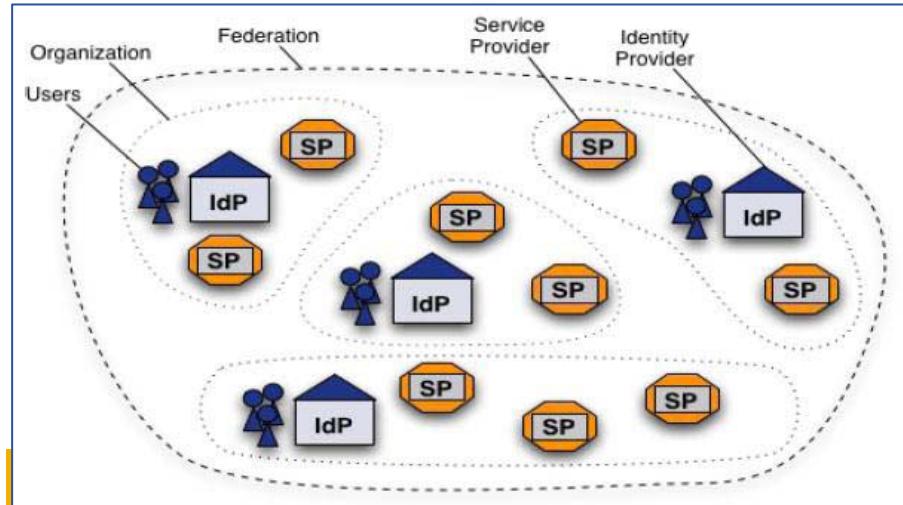


IDEM Identity Federation in Italy

(www.idem.garr.it)

IDEM figures:

- 33 Members (INFN and COMETA are two of them);
- 9 Partners;
- 38 Identity Providers;
- 35 Services Providers
- ~3,000,000 end users;
- ~50% of the Italian higher education & research community





The Grid IDentity Pool (GrIDP)

(<http://gridp.ct.infn.it>)

About Identity Providers Service Providers Documentation Contacts



Grid
IDentity
Pool

About Identity Providers Service Providers Documentation Contacts



Grid
IDentity
Pool

About

The Grid IDentity Pool (GrIDP) is an Identity Federation supporting cross-members. Through GrIDP, users can access high-level services, such as using the credentials provided by the organisations they belong to.

The GrIDP Identity Federation comprises members of the academic, research and industrial sectors:

- Identity Providers (**IdP**): the entities (e.g. academic and research institutions).
- Service Providers (**SP**): the entities providing services to the federation for the purpose of authentication and provision of personalized services.

The participation of an **Identity Provider** to GrIDP provides multiple benefits:

- logging into a federated service is performed using the user's existing identity.
- the user's identity, position and affiliation are only optionally transferred.

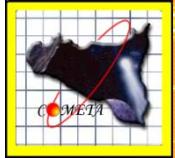
Accordingly, a **Service Provider** may benefit from joining GrIDP by being able to offer its services to a wider user base without the need for "ad hoc" user authentication methods.

Identity Providers

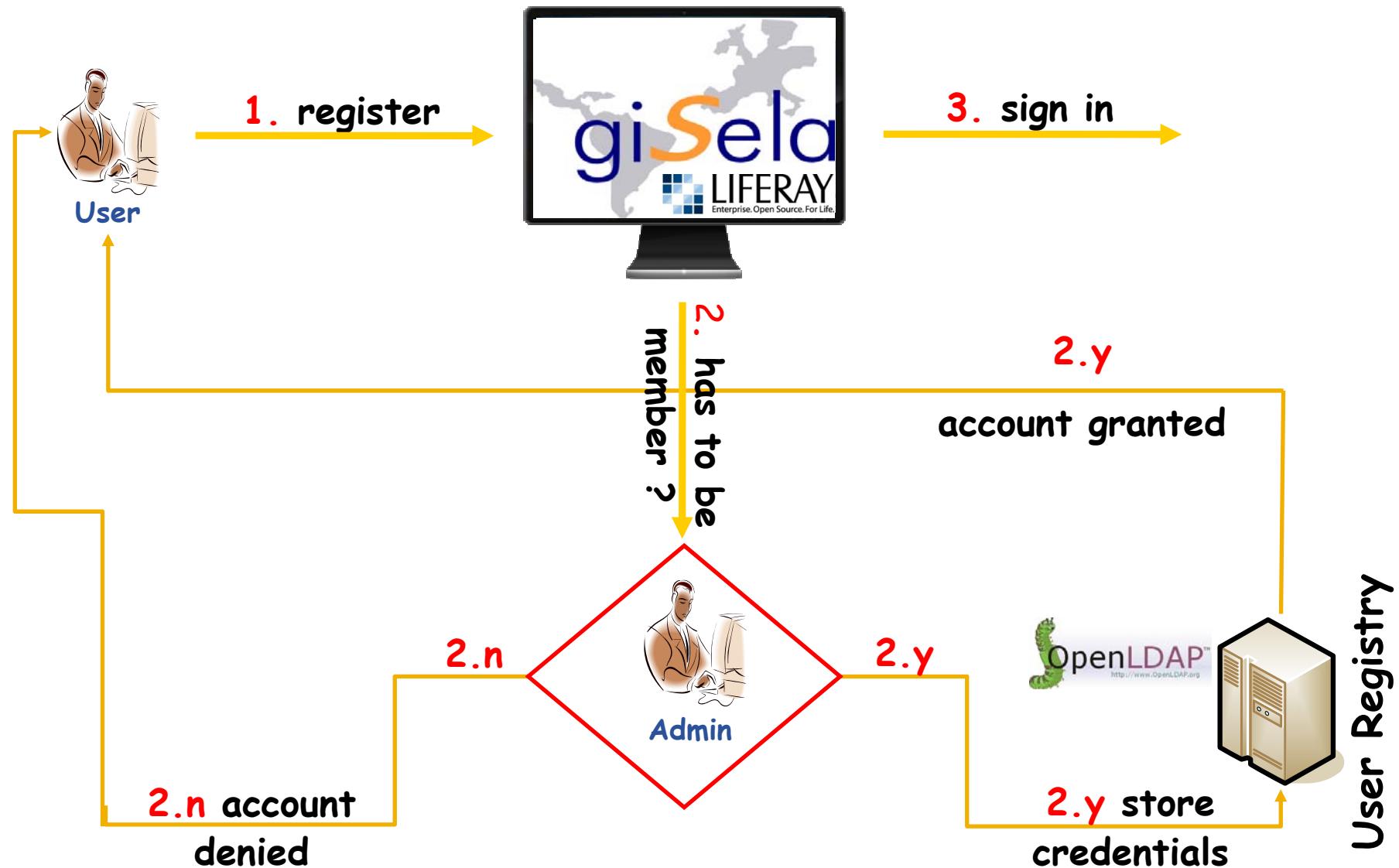
The GrIDP Identity Federation currently comprises the following Identity Providers:

- INFN Catania and COMETA (IDPCT) - this is a "catch-all" Identity Provider
- Istituto Nazionale di Fisica Nucleare (INFN-AAI) - Italy
- *meetG* - France
- Social Networks' Bridge Identity Provider
 - (This is a special Identity Provider to authenticate people with the credentials they have with the most common and populated social networks)

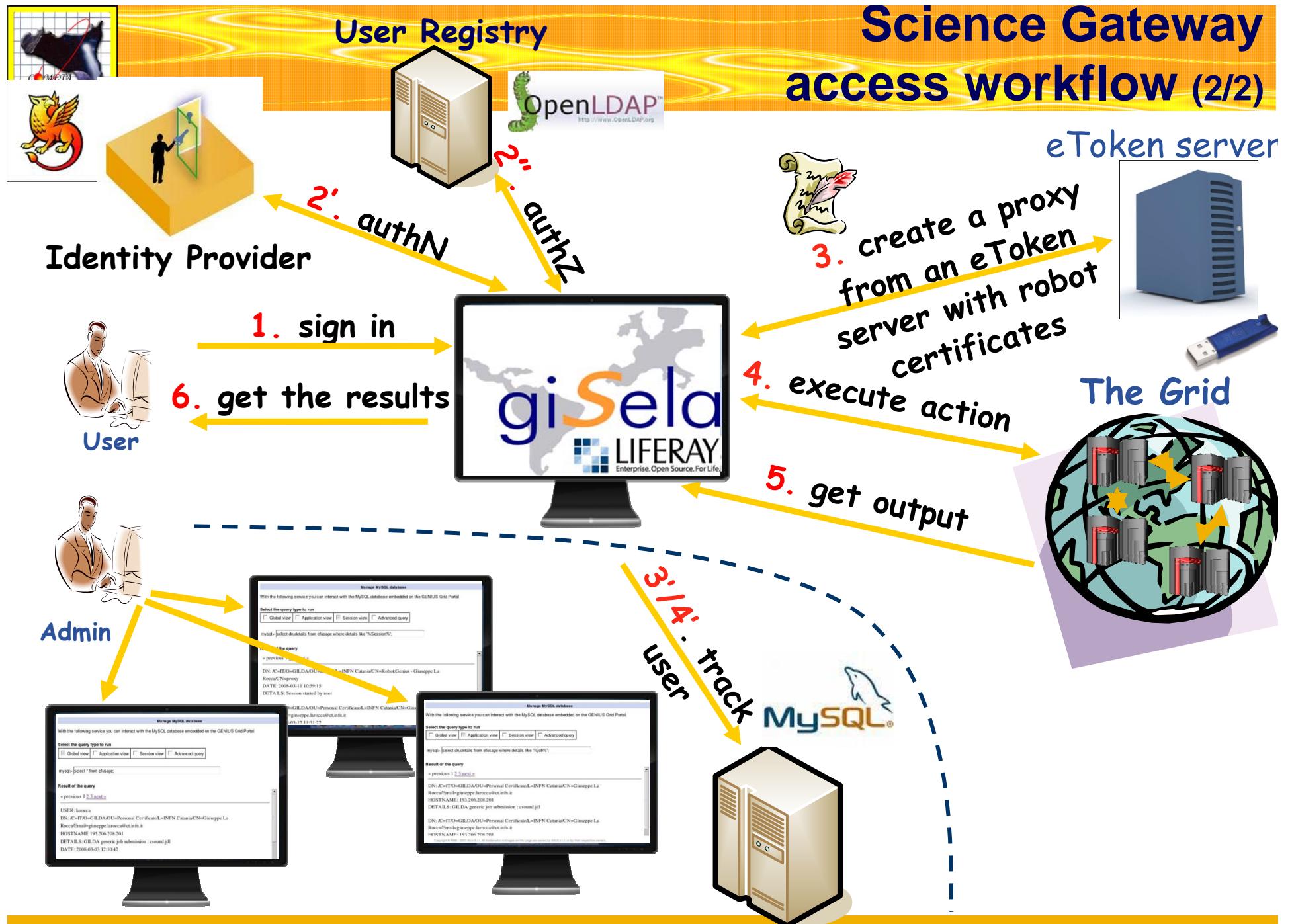


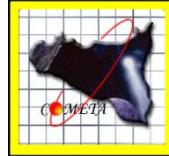


Science Gateway access workflow (1/2)

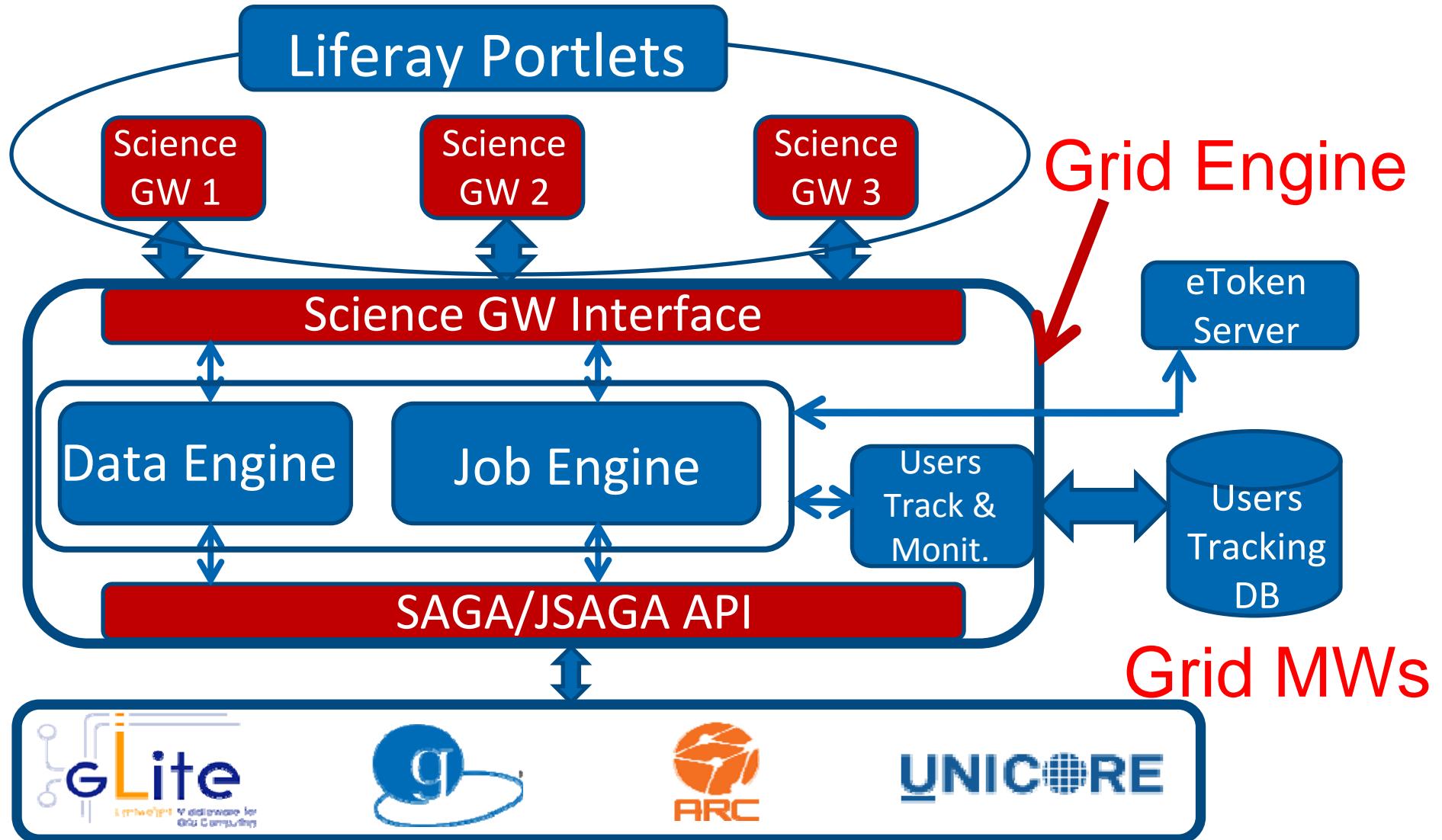


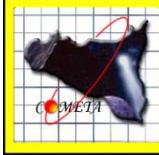
Science Gateway access workflow (2/2)





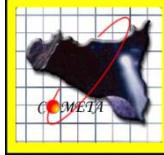
A Generic Grid Engine for Science Gateways based on SAGA/JSAGA





A Simple API for Grid Applications (SAGA)

- **SAGA is an API that provides the basic functionality required to build distributed applications, tools and frameworks;**
 - **It is independent of the details of the underlying infrastructure (e.g., the middleware):**
 - SAGA is an EGI.eu Technology Provider
(MoU signed on 11 April 2011)
This means sustainability
- Leiden University, CSC and Vrije Universiteit Amsterdam (<http://saga.cct.lsu.edu>);
- A Java implementation developed at CCIN2P3 (<http://grid.in2p3.fr/jsaga/>);
 - A Python implementation based on those above.



A Simple API for Grid Applications (SAGA)

- SAGA is made of:
 - **SAGA Core Libraries**: contain the SAGA base system, the runtime and the API packages (job management, data management, etc.);
 - **SAGA Adaptors**: provide access to the underlying grid infrastructure (adaptors are available for gLite, ARC, Globus, UNICORE and other middleware);
- SAGA defines a standard → We then need an implementation!



- JSAGA is a **Java implementation of SAGA** developed at CCIN2P3 Lyon (France);
- **JSAGA:**
 - Enables uniform data and job management across different grid infrastructures/middleware;
 - Makes extensions easy: adaptor interfaces are designed to minimize coding effort for integrating support of new technologies/middleware;
 - Is OS independent: most of the provided adaptors are written in full Java and they are tested both on Windows and Linux.



JSAGA Adaptors

Module	Description	License
Adaptor for accessing clusters via SSH	This module provides support for accessing cluster systems through ssh.	GNU Lesser General Public License [link]
Adaptor for BES	This module provides generic support for BES (Basic Execution Standard). It cannot be used on its own.	GNU Lesser General Public License [link]
Adaptors for classic protocols	This module provides support for classic; security mechanisms (X509 certificates, Java Keystore), data management protocols (HTTP, HTTPS, local, ZIP), execution management technologies (fork).	GNU Lesser General Public License [link]
Adaptors for gLite-CREAM	This module provides support for execution management service gLite-CREAM (Computing Resource Execution And Management).	GNU Lesser General Public License [link]
Adaptors for gLite-WMS		GNU Lesser General Public License [link]
Adaptors for Globus Toolkit v2		GNU Lesser General Public License [link]
Adaptors for Globus WS-GRAM		GNU Lesser General Public License [link]
Adaptors for iRODS SRB		GNU Lesser General Public License [link]
Adaptors for LFC		GNU Lesser General Public License [link]
Adaptors for NAR		GNU Lesser General Public License [link]
Adaptors for SRM		GNU Lesser General Public License [link]
Adaptors for SSH	This module provides support for SSH components; security mechanism (SSH asymmetric keys), data management protocol (SFTP), execution management technology (SSH).	GNU Lesser General Public License [link]
Adaptors for Unicore 6	This module provides support for Unicore 6 components: data management protocol (RByte-IO), execution management technology (Unicore Gateway).	GNU Lesser General Public License [link]
Adaptors for Unix/Linux file systems	This module provides complete support for protocol 'file' on Unix and Linux file systems.	GNU Lesser General Public License [link]
Adaptors for VOMS	This module provides support for VOMS (Virtual Organization Membership Service) security mechanism.	GNU Lesser General Public License [link]
jsaga-adaptor-arc	This module provides support for A-REX service provided by ARC middleware	GNU Lesser General Public License [link]
jsaga-adaptor-bes-unicore6	This module provides support for Unicore6 via BES (Basic Execution Service) interface	GNU Lesser General Public License [link]

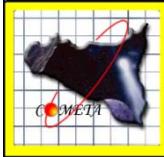
JSAGA supports gLite, Globus,
ARC, UNICORE, etc.



EGI Portal Policy & Security Policy (1/2)

Identified Web User

Portal Classes			
Portal Class	Executable	Parameters	Input
Simple one-click	provided by portal	provided by portal	provided by portal
Parameter	provided by portal	chosen from enumerable and limited set	chosen from repository vetted by the portal
Data processing	provided by portal	chosen from enumerable and limited set	provided by user
Job management	provided by user	provided by user	provided by user



EGI Portal Policy & Security Policy (2/2)

- The Portal, the VO the Portal is associated to, and the Portal manager are all individually and collectively responsible and accountable for all interactions with the Grid;
- The Portal must be capable of **limiting the job submission rate**;
- The Portal must keep **audit logs for all interactions with the Grid as defined in the Traceability and Logging Policy (minimum 90 days)**;
- The Portal manager and operators must **assist in security incident investigations**;
- Where relevant, **private keys associated with (proxy) certificates must not be transferred across a network, not even in encrypted form.**



Two Tables: one for active Jobs and File Transfers
and one for the finished ones.

Example of entry in the Users Tracking DB

Common Name	Portal User Name as stored in LDAP
IP + Port	IP address and TCP port used by the requester
ID	70
Common Name	fpistagna
IP + TCP Port	193.206.208.183:8162
Timestamp	2011-07-06 14:16:29
Grid Interaction	1
Grid ID	[wms://infn-wms-01.ct.pi2s2.it:7443/glite_wms_wmproxy_server]-[https://infn-lb-01.ct.pi2s2.it:9000/7rQ458xozactEEjoXMIxQg]
Robot Certificate	/C=IT/O=INFN/OU=Robot/L=COMETA/CN=Robot: ViralGrid Science Gateway - Roberto Barbera
Virtual Organisation	cometa



Science Gateways developed at Catania

(<http://gridp.ct.infn.it>)

About

Identity Providers

Service Providers

Documentation

Contacts



Service Providers

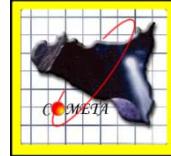
The GrIDP Identity Federation currently comprises the following Service Providers:

1. The CHAIN portal
2. The DECIDE Science Gateway
3. The EUMEDGRID Science Gateway
4. The GILDA t-Infrastructure portal
5. The GISELA Science Gateway (under construction)
6. The INDICATE e-Culture Science Gateway
7. The RICeVI portal (in italian)
8. The SPECIAL portal
9. The ViralGrid Science Gateway

Some of the GrIDP Service Providers are also resources of other Identity Federations. In particular:

- The CHAIN portal is a resource of GRNET-AAI
- The DECIDE Science Gateway is a resource of IDEM
- The EUMEDGRID Science Gateway is a resource of GRNET-AAI and IDEM
- The INDICATE e-Culture Science Gateway is a resource of CARS1, GRNET-AAI and IDEM
- The RICeVI portal is a resource of IDEM





Science Gateways as IDEM Service Providers

Firefox ➔ Federazione IDEM: L'Infrastruttura di Aut... ➔ https://www.idem.garr.it

Webmail 1 Webmail 2 Ovi.com MySite Calendar AmmiINFN GILDA Monitors Progetti Liste email Dizionari Bookmarks

Consortium GARR Portale Servizi

Contatti News Eventi FAQs Sitemap Segnala Risorsa GARR

Federazione IDEM: L'Infrastruttura di Autorizzazione e Autenticazione della rete GARR

Sei pronto per partecipare alla federazione?

Sei pronto per partecipare alla federazione? [LEGGI TUTTO...](#)

L'Istituto Nazionale di Fisica Nucleare entra in IDEM

Il Comitato di Indirizzo di IDEM il 3/10/2011 ha approvato la partecipazione alla Federazione IDEM dell'Istituto Nazionale di Fisica Nucleare (INFN) in qualità di Membro.

[RICeVI](#) è la risorsa che è stata registrata in Federazione.

Vai all'Elenco completo dei Membri.

Vai all'Elenco completo delle Risorse della Federazione IDEM.

[SHARE](#)

Il Consorzio COMETA entra in IDEM

Il Comitato di Indirizzo di IDEM il 5/9/2011 ha approvato la partecipazione alla Federazione IDEM del Consorzio COMETA in qualità di Membro.

[DECIDE](#), [EUMEDGRID](#) e [INDICATE](#) sono le risorse che sono state registrate in Federazione.

Vai all'Elenco completo dei Membri.

Vai all'Elenco completo delle Risorse della Federazione IDEM.

[SHARE](#)

Fall REFEDS Meeting
14 Settembre 2011 - Helsinki

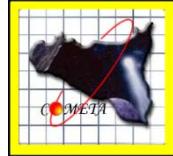
IRISC2011
[Identity in Research Infrastructure and Scientific Communication, 12-13 Settembre 2011 - Helsinki](#)

Conferenza GARR 2011
8-10 Novembre 2011 - Bologna

Terzo Convegno IDEM
9 Novembre 2011 - Bologna

Terzo IDEM DAY

12 visitatori e 1 utente online



L'e-Culture Science Gateway di INDICATE

<http://www.indicate-project.eu>

INDICAT
International Network
for Digital Cultural
Heritage e-Infrastructure

About
Partners
Working Groups
EU related projects
Dissemination
Publications
Case studies
Events archive
News archive
Reserved Area



INDICAT
International Network
for Digital Cultural
Heritage e-Infrastructure

Pilot Applications
De Roberto DR
MED Repo
China Relics DR
Status classification
Back to the home page

<http://indicate-gw.consorzio-cometa.it>

De Roberto DR - e-Culture Science Gate...

INDICAT International Network for Digital Cultural Heritage e-Infrastructure

Pilot Applications

- De Roberto DR
- MED Repo
- China Relics DR
- Status classification
- Back to the home page

De Roberto DR - e-Culture Science Gate...

INDICAT International Network for Digital Cultural Heritage e-Infrastructure

Pilot Applications

- De Roberto DR
- MED Repo
- China Relics DR
- Status classification
- Back to the home page

De Roberto Digital Repository

Acronym: De Roberto DR
Name: Digital Repository of Federico De Roberto works
Domain: Cultural Heritage
Status: [Learn More](#)

DR digital repository

d r

gLibrary

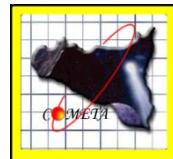
Member Login

To login as guest, type visitor both as Username and Password.

If you don't have any credentials, register [here](#).

APPLICATION DESCRIPTION

Federico De Roberto, an italian writer of the XIX/XX century, left many works of relevant values to the humanistic communities. Around 8000 sheets of those works have been digitized by La.m.u.sa team, a group of researchers from the Faculty of Letters and Philosophy in Catania. With gLibrary, the De Roberto digital repository has been created, and this cultural heritage, replicated on several storages in a grid, will be preserved and it is now accessible to everyone



L'e-Culture Science Gateway di INDICATE

Firefox Register - INDICATE e-Culture Science G... + indicate-gw.consortio-cometa.it/request-account ★ Bookmarks

Webmail 1 Webmail 2 ovi Ovi.com DFA MySite Calendar AmmiINFN GILDA Monitors Progetti Liste email Dizionari Home Search Site Map

INDICATE
International Network
for Digital Cultural
Heritage e-Infrastructure

Register Sign In

Please, enter your data

Title:
Organization*: University of Catania
Name*: Roberto
Address:
Surname*: Barbera
Country:
Skype Contact:
Telephone:
E-mail*: roberto.barbera@ct.infn.it If you are already a member of an Identity Federation, please specify the "same" email address you are registered with in the Federation

If you are a member of one of the Identity Federations listed below, you can register to this portal using the same credentials you already have. If you do not belong to any of them, leave "(none)".

Identity Federations: (none), (none), CARSI, GARR-ID, GRNET-AAI, GRIDP

A red oval highlights the dropdown menu for "Identity Federations" where "GARR-ID" is selected.



The Authentication Procedure

Select an Identity Provider

The Service you are trying to reach requires that you get authenticated. Please, choose from the list below the Federation and the Organisation you belong to.

Identity Federations' discovery service

Federation	Organisation
GrIDP	IDPCT (INFN Catania and COMETA)
GARR-IDEIM	Istituto Nazionale di Fisica Nucleare
CARSI	maatG
GRNET-AAI	Social Networks' Bridge IdP
All Sites	

Selected Remember for session

In case of problems, please send an email to [credentials-admin](mailto:credentials-admin@ct.infn.it).
Do not bookmark this page! After login you will be redirected to the portal you wanted to use.

 **Shibboleth.**

This service is powered by  **Shibboleth.**

Existing Session: false
Requested Authentication Methods: []
Attempting Authentication Method: urn:oasis:names:tc:SAML:2.0:ac:classes>PasswordProtectedTransport
Is Forced Authentication: false

Username: test1
Password:

Identity Provider Catania
«catch-all» Identity Provider

User Password



Shibboleth Identity Provider Login to Service Provider <https://indicate-gw.consorzio-cometa.it/shibboleth>



29



The Social Networks' Bridge Identity Provider

(<https://idpsocial.ct.infn.it>)

Select an Identity Provider

The Service you are trying to reach requires that you get authenticated. Please, choose from the list below the Federation and the Organisation you belong to.

Identity Federations' discovery service

Federation

- GrIDP
- GARR-IDEIM
- CARSI
- GRNET-AAI
- All Sites

Organisation

- IDPCT (INFN Catania and COMETA)
Istituto Nazionale di Fisica Nucleare
- maatG
- Social Networks' Bridge IdP

Select

Remember for session ▾

In case of problems, please send an email to credentials-admin@ct.infn.it.
Do not bookmark this page! After login you will be redirected to the web page containing the service you want to use.

Social Networks' Bridge Identity Provider

In order to use this service of the portal <https://indicate-gw.consortio-cometa.it>, please sign in using your account on the same social network you specified when you registered.



email to credentials-admin@ct.infn.it with their description.
login you will be redirected to the web page containing the service of the portal you

facebook

Sign Up

Facebook helps you connect and share with the people in your life.

Facebook Login

Log in to use your Facebook account with Social Networks' Bridge Identity Provider.

Email address:

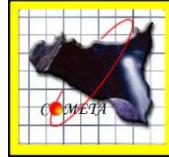
Password:

Keep me logged in

or [Sign up for Facebook](#)

[Forgotten your password?](#)

[Italiano](#) [English \(US\)](#) [Español](#) [Português \(Brasil\)](#) [Français \(France\)](#) [Deutsch](#) [हिन्दी](#) [中文 \(简体\)](#) [日本語](#) ...



L'e-Culture Science Gateway di INDICATE

Browse - e-Culture Science Gateway of the INDICATE Project - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://indicate-gw.consortio-cometa.it/digital-library

INDICATE International Pilot Application for Digital Heritage e-Infrastructures

Pilot Applications

- De Roberto DR
- Browse
- MED R
- Browsing
- Status check
- Back to the homepage

Select the replica to download...

Basato sulle API REST di gLibrary

Usa l'interfaccia HTTPS degli Storage Element

UNIPA DMI UNICT INAF

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

© 2011 Cnes/Spot Image

36°59'45.71"N 15°01'22.85"E elev 0 m Alt 600.18 km

Google

Termini e condizioni d'uso

014_la_lupa.tif

manoscritto della tragedia lirica in due atti, musicata da pierantonio tasca, pubblicata da officine tipo-litografiche barravecchia e balestrini, palermo 1919; altre

paiermo 1919; altre oto, tipografia rosario sobre 1932; conservato biblioteca di storia patria ia orientale

o della tragedia lirica in musicata da pierantonio blicata da officine ifiche barravecchia e palermo 1919; altre oto, tipografia rosario sobre 1932; conservato biblioteca di storia patria ia orientale

o della tragedia lirica in musicata da pierantonio blicata da officine ifiche barravecchia e palermo 1919; altre oto, tipografia rosario sobre 1932; conservato biblioteca di storia patria ia orientale

Done

31

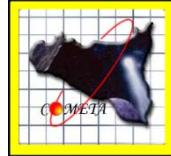


L'e-Culture Science Gateway di INDICATE

A screenshot of a web browser window. The address bar shows a URL starting with "http://unict-dmi-se-01.ct.pi2s2.it:...P270fn...". The page content is a scanned document titled "ATTOPRI" with a decorative border. The text discusses a rural scene with a hut, tools, and a path. It includes a section titled "Nell'aia sull'imbrunire." and a "SCENA I." Below the main text, there is a note: "Bruno, Malerba, Neli, Grazia, contadini duti sulla paglia e su barili ruoli e a intorno a Filomena che sta narrando". A "Save PDF to download" button is visible at the bottom.



A screenshot of a web browser window showing a handwritten script. The text is in Italian and appears to be a conversation between two characters, Mara and Nanni. The dialogue includes:
Mara (con pietate, piangendo): Si... poi vedrete quando un'orfanella al mondo lascero'!
Nanni (furioso): Maledetto sia Guido! E' proprio bella questa festa ch'io fo!
Mara (amaramente): Ed io? ed io?
Nanni:
Mara (c. s.): E negate! negate!
Nanni:
Non e' vero!
Che cosa hai visto, di?



L'e-Culture Science Gateway di INDICATE

Grazie alla collaborazione con



Firefox Browse - e-Culture Science Gateway of t... https://indicate-gw.consortio-cometa.it/digital-library-chinarelics

WebMail 1 Webmail 2 Ovi.com FastWeb AP 3COM trip MySite Amm INFN GILDA Monitors Progetti Liste email Di...

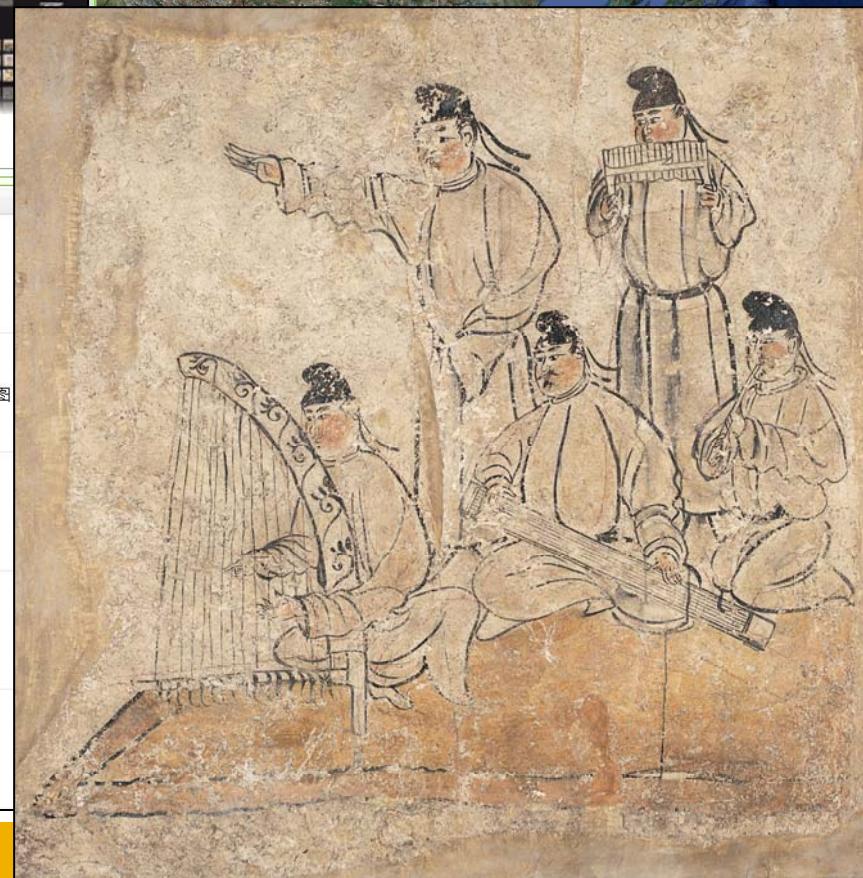
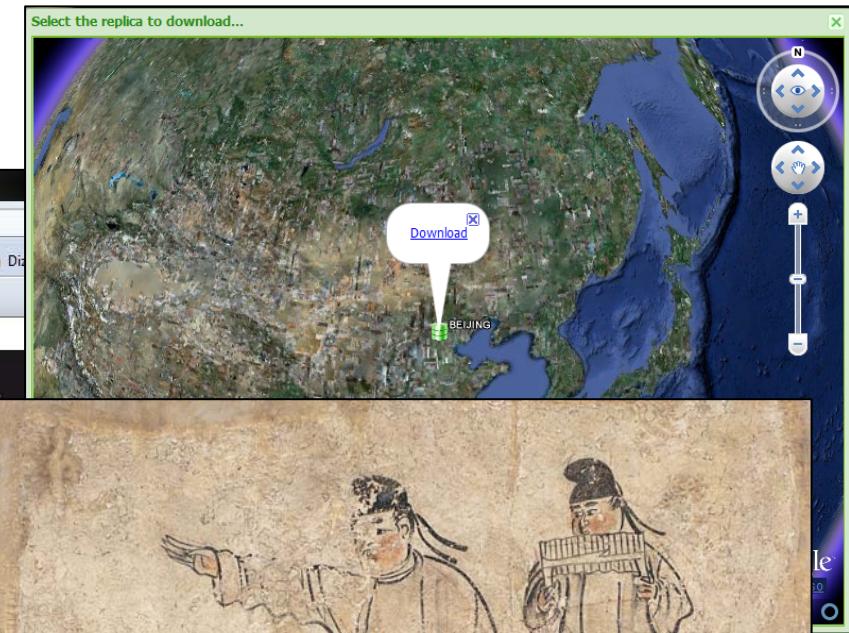
Add Manage Toggle Edit Controls

INDICATE
International Network
for Digital Cultural
Heritage e-Infrastructure

Pilot Applications
De Roberto DR
Browse
MED Repo
Browse
China Relics DR
Browse
Status classification
Back to the home page

China Relics Digital Repository

Thumb	numb	name
	1	仕女图
	2	唐安公主墓男侍图
	3	苏思助墓舞蹈图
	4	马球图
	5	李凤墓侍女图





Science Gateways in action: GATE @ EUMEDGRID

Science Gateway

- Instructions to Register and Sign In
- GATE
- Run**
- Phylogenetics

My Workspace

- My Jobs
- My Data
- My Help

GATE

Please fill the following form and then press 'SUBMIT' button to launch GATE application.
Requested inputs are:

- GATE Macro file (.mac)
- GATE Material Database (.db)
- ROOT C source code for post procesing data analysis

Pressing the 'Demo' Button input fields will be filled with Demo values
Pressing the 'Reset' Button all input fields will be initialized.

GATE Macro file

```
#####
# Visualisation #
#####

#####
# Mandatory fGate #
#####

/gate/geometry/setMaterialDatabase

/gate/world/geometry/setXLength 200
/gate/world/geometry/setYLength 300
/gate/world/geometry/setZLength 200
/gate/world/setMaterial Vacuum

/gate/world/daughters/name target
/gate/world/daughters/insert box
/gate/target/setMaterial Aluminium
```

GATE

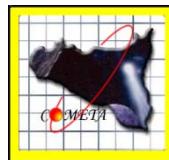
Insert below your experiment identifier

GATE DEMO Simulation of: 8/10/2011 - 14:37:59

Demo SUBMIT Reset values

About





Science Gateways in action: MrBayes @ GiSela

Science Gateways

- Home
- Life Sciences
 - Phylogenetics
 - Run

My Workspace

- My Jobs
- My Data
- My Help

MrBayes - Set Parameters

Input Parameters

Alignment File (Nexus Format): Description: results

Likelihood model (Iset)

number of substitution types (nst) 6 (GTR)

A	C	G	T
A	γ_1	α_1	β_1
C	γ_1		α_2
G	α_1	β_2	γ_2
T	β_1	α_2	γ_2

form of the nucleotide substitution model (nucmodel) 4by4 (standard model of DNA substitution)
enforces use of a particular universal code genetic code (code) codon
rate variation across sites (rates) gamma-distributed rates across sites
rate number of gamma rate categories (ngammacat) do a reasonable job of approximating the continuous gamma (default)

Set outgroup (outgroup)

assigns a taxon to the outgroup 1 (enter taxon number or **(outgroup)matrix**)

(nruns)
how often to attempt swaps of states between chains (swapfreq) 1
sample a tree every 100 generations (samplef)
print to screen every 100 generations (printf)
number of chains (nchains) four
save tree branch lengths (savebrlens) yes
should taxa should be ordered before printing trees to file? (ordertaxa) no

Summarise results (sumt)

discard first 100 trees sampled (burnin) (100 for tri publication)
consensus tree type (contype) majority rule with all compatible partitions
should tree probabilities print to screen? (showtreeprobs) no

[https://infn-ui-01.ct.pi2s2.it:7801 - larocca's desktop - Mozilla Firefox](https://infn-ui-01.ct.pi2s2.it:7801)

HyperTree

File Edit View Help

Balaenoptera_musculus
Balaenoptera_physalus
Equus_caballus
Halichoerus_grypus
Phoca_vitulina
Ceratotherium_simum
Mus_musculus
Rattus_norvegicus
Felis_catus
Hylobates_lar
Pongo_pygmaeus_abelii
Gorilla_gorilla
Homo_sapiens
Pan_troglodytes
Pan_paniscus

[https://glite-tutor1.ct.infn.it:7801 - larocca's desktop - Mozilla Firefox](https://glite-tutor1.ct.infn.it:7801)

Saturnia_x_20080911112559_nex.nexus.t

DQ291448 Copaea curvilinea
DQ291463 Copaea heinrichi
DQ291628 Rothschidilia erycinia
DQ291728 Rothschidilia lebeau
DQ291769 Rothschidilia lebeau
DQ291462 Copaea monstrosa
DQ291711 Rothschidilia lebeau
DQ291463 Copaea esculentaria
DQ291488 Copaea rufitarsis
DQ291713 Rothschidilia lebeau
DQ291459 Copaea monstrosa
DQ291704 Rothschidilia lebeau
DQ291464 Copaea heinrichi
DQ291763 Rothschidilia lebeau
DQ291447 Copaea curvilinea
DQ291198 Rothschidilia lebeau
DQ291470 Rothschidilia lebeau
DQ291482 Copaea rufitarsis
DQ291712 Rothschidilia lebeau
DQ291452 Copaea esculentaria
DQ291706 Rothschidilia lebeau
DQ291720 Rothschidilia lebeau
DQ291475 Copaea rufitarsis
DQ291718 Rothschidilia lebeau
DQ291473 Copaea monstrosa
DQ291489 Copaea heinrichi

35



Science Gateways in action: GridEEG @ DECIDE

Diagnostic Enhancement of Confidence by
an International Distributed Environment

DECIDE Science Gateway

- > Home
- > Applications
- > GridEEG
 - > Run
 - > Manage
 - Repository
- > GridMDA
- > GridSP
- > Grid Services
- > User Support

My Work

My Jobs

My Data

My Help

This is a Sidero
service

GridEEG

GridEEG is an application connected with porting of the EEG algorithms to the Grid environment, in particular algorithms for spectral coherences (SC) (ordinary, partial and multiple) and Direct Functions (DTF). These estimators give information about connectivity between brain regions. The values of SC and DTF are the biomarkers differentiating healthy from impaired groups will be

GridEEG application consists of the following tools:
> GridEEGDATA (Gridified Database of EEG data):

The graphs show PSD (dB) on the y-axis ranging from -180 to -80. The x-axis categories are Delta, Theta, Alpha, Beta, and Gamma. Each graph has four lines corresponding to electrode positions F, C, P, and O.

Statistical distance

AD

Nold

You have chosen to open

40.tgz
which is a: Gnu Zipped Tape Archive
from: <https://applications.eu-decide.eu>

What should Firefox do with this file?

Open with Stuffit Expander (default)
 Save File
 Do this automatically for files like this

Cancel

OK

36



Science Gateways in action: DataManager @ DECIDE

The screenshot shows the DECIDE Science Gateway interface. On the left, a sidebar titled "DECIDE Science Gateway" lists various applications and services, including "GridEEG" which is currently selected. The main content area is titled "Manage Repository" and displays a list of databases to manage: MCI (Mild Cognitive Impairment), NOLD (NOrmal eLDerly subjects), and AD (Alzheimer's Disease). A red diagonal watermark reads "Data are anonymised, encrypted and replicated". Below this, another window titled "GridEEG_NOLD repository Manager" shows a table of uploaded files and their metadata. An "Edit Metadata" tab is open, showing detailed information for a file named "Nold_001.zip".

DECIDE Science Gateway | DECIDE Home | Project | Documents | Technical Wiki |

DECIDE
Diagnostic Enhancement of Confidence by
an International Distributed Environment

DECIDE Science Gateway + x

Home
Applications
GridEEG
Run
Manage Repository
MCI
NOLD
AD
GridMRIseg
GridSPM
Grid Services
User Support

My Workspace MYWORK

Manage Repository

Select from the list below the database you want to manage:

MCI (Mild Cognitive Impairment)
NOLD (NOrmal eLDerly subjects)
AD (Alzheimer's Disease)

DECIDE Science Gateway | DECIDE Home | Project | Documents | Technical Wiki |

DECIDE
Diagnostic Enhancement of Confidence by
an International Distributed Environment

DECIDE Science Gateway

DECIDE > DECIDE Science Gateway > Applications > GridEEG > Manage Repository > NOLD

GridEEG_NOLD repository Manager

Upload files Edit Metadata

FileName	SubmissionDate
Nold_002.zip	2011-10-03 18:46:00
Nold_003.zip	2011-10-03 18:46:00
Nold_001.zip	2011-10-04 00:00:00

Metadata Editor

FileName :	Nold_001.zip	SubmissionDate :	Oct 4 2011
Size :	278189	FileType :	zip
id :	10	siteID :	1
StudyName :	PharmaCOG	StudyDescription :	
AvailData :		Type :	
Sex :		Age :	35
Pathology :		MMSE :	
CIDementiaRating :		MachineBrand :	
MachineModel :		Viscode :	
EegSignal :		EegFileFormat :	

Data are anonymised, encrypted and replicated



Il portale RICeVI per l'e-collaboration and l'e-learning

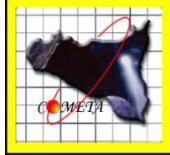
The screenshot shows a Adobe Connect interface. On the left, there's a large text "COLLABORAZIONE" with a hand-drawn style. In the center, a workflow diagram is displayed with four boxes labeled "PASSO 1", "PASSO 2", "PASSO 3", and "PASSO 4" connected by arrows. To the right, a video conference window shows three participants: Elisa Ingrà, Valeria Ardizzone, and Emilio Giorgio. Below the video, a participant list shows "Ospitanti (2)" with Elisa Ingrà and Valeria Ardizzone, and "Relatori (1)" with Emilio Giorgio.

Si veda la presentazione di
Elisa Ingrà a questa conferenza

The screenshot shows a Adobe Connect interface. On the left, a large text "DISSEMINAZIONE" is visible. In the center, a video conference window shows two participants: Elisa Ingrà and Valeria Ardizzone. Below the video, a "Note discussione" panel shows a chat log with messages from Elisa Ingrà and Valeria Ardizzone. A "Sondaggio" (Survey) panel is also visible.

The screenshot shows a "Configuration file" section with a list of modules and their paths. It also shows a "FORMAZIONE" (Training) section with a "FILE SUPPORTATI" (Supported Files) list. The supported files include PDF, MP3, PPT, SWF, HTML, CP, and various image formats (JPEG, GIF, PNG).

- I moduli vengono caricati secondo le esigenze agendo sul file di configurazione: /etc/asterisk/modules.conf.
-



Summary and conclusions

- Science Gateways and Identity Federations plus Social Networks can revolutionize the way Grid infrastructures are used, hugely widening their potential user base;
- The adoption of standards (JSR 286, SAGA, SAML, etc.) represents a concrete investment towards sustainability;
- Now that millions of users can potentially access and use our Science Gateways, we are going to develop a «marketing» and «communication» strategy and a portfolio of «appealing» applications to attract them;
- If you want to integrate your applications in our Science Gateways, or simply enable your websites with our authentication tools, please contact either me or sg-licence@ct.infn.it



Thank you for your kind attention !

Any questions ?





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Credits

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