

EGI Services for Integrated Usage

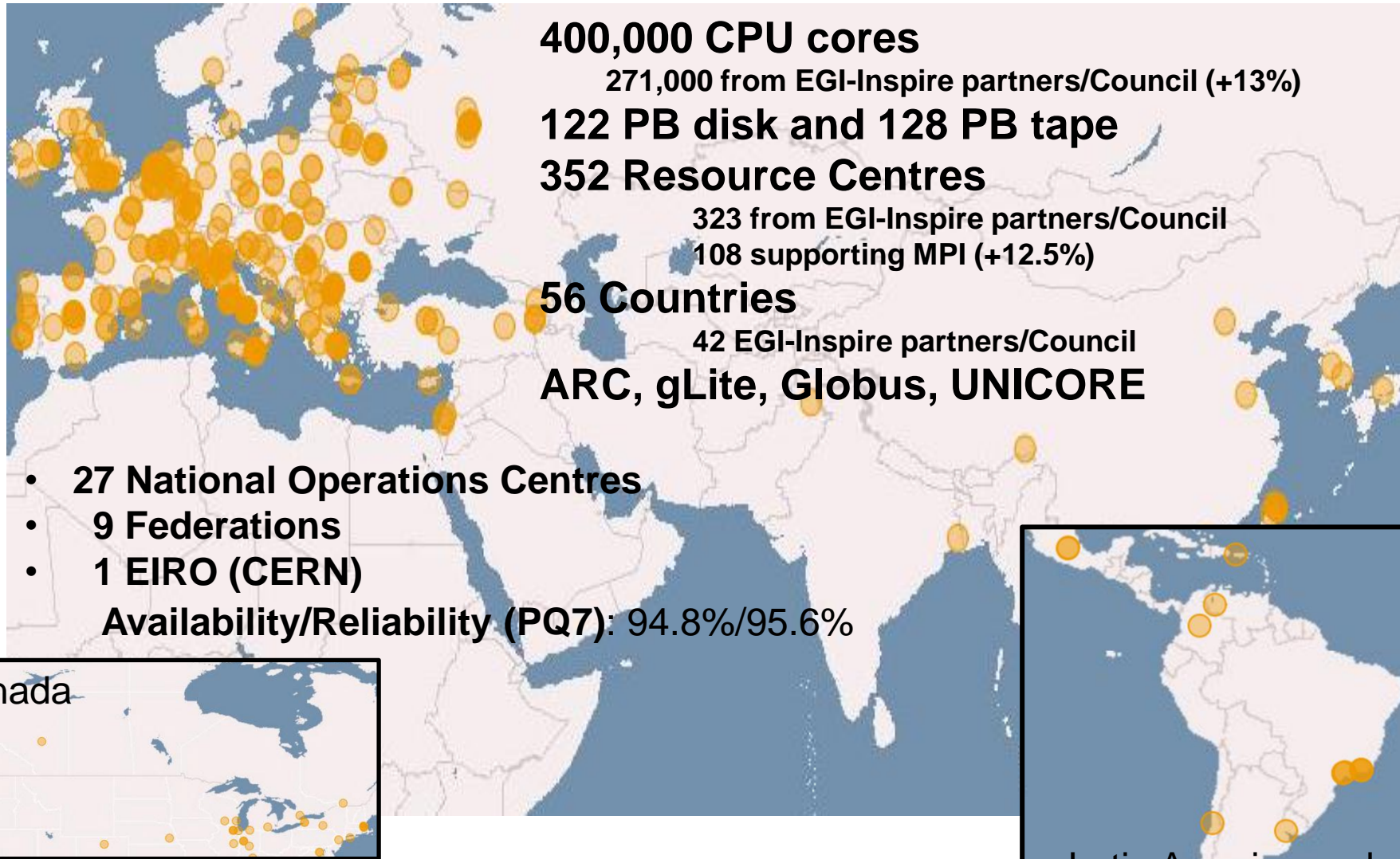
Tiziana Ferrari

EGI Chief Operations Officer

PRACE Workshop, CF12 
e-infrastructure



- EGI Infrastructure
- Operations service portfolio



400,000 CPU cores

271,000 from EGI-Inspire partners/Council (+13%)

122 PB disk and 128 PB tape

352 Resource Centres

323 from EGI-Inspire partners/Council

108 supporting MPI (+12.5%)

56 Countries

42 EGI-Inspire partners/Council

ARC, gLite, Globus, UNICORE

- **27 National Operations Centres**
- **9 Federations**
- **1 EIRO (CERN)**

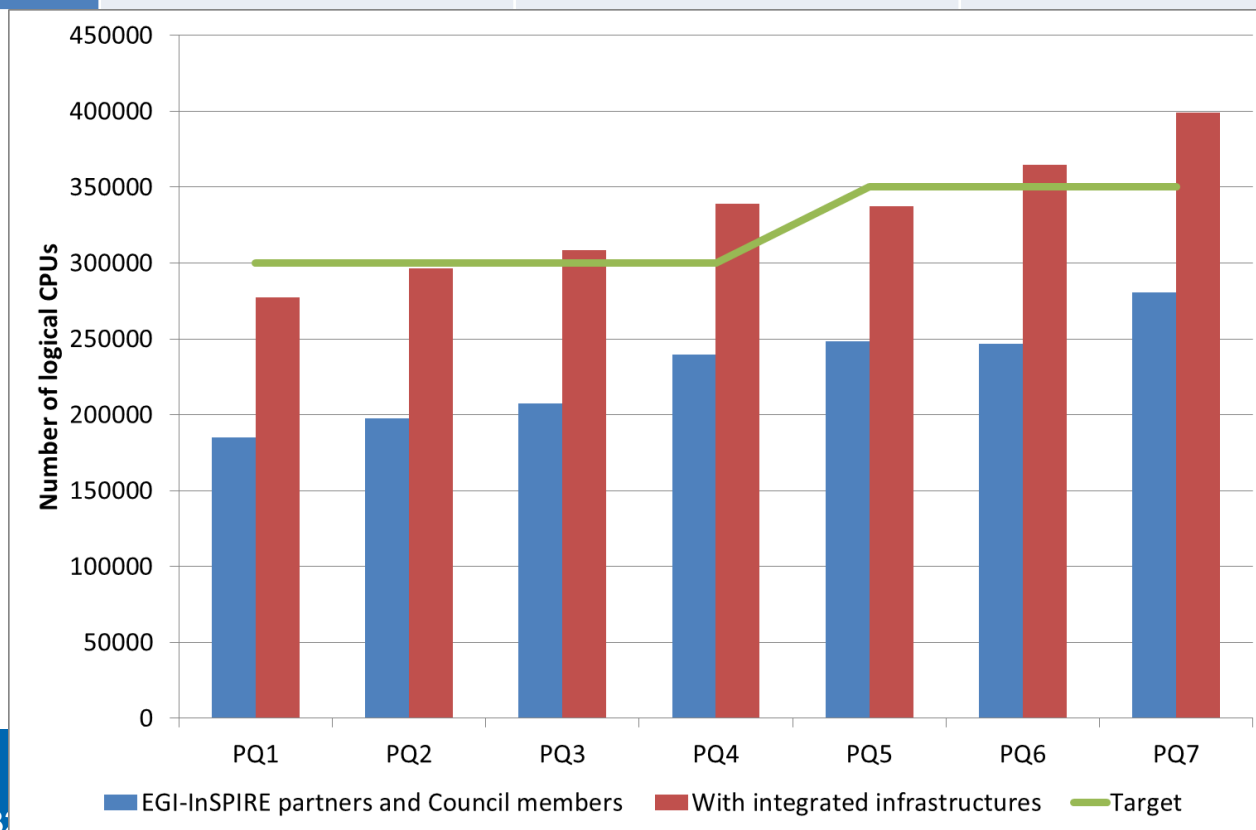
Availability/Reliability (PQ7): 94.8%/95.6%

Canada

Latin America and
Caribbean region

Installed Capacity (CPU)

	April 2010 (EGEE-III Infrastructure)	March 2011 (EGI-InSPIRE Infrastructure)	March 2012 (EGI-InSPIRE Infrastructure)
Logical CPUs/yearly increase	192,000	207,203/+7.9%	270,800/+30.7%
Million \$100	335 (1.34 Million HEP-SPEC 06)	495/+47.7% (1.98 Million HEP-SPEC 06)	740/+49.5% (2.96 Million HEP-SPEC 06)



Users and disciplines (Jan 2012)

Registered VO members: 21,126 (+13.5 from April 2011)

223 VOs (111 international ones)

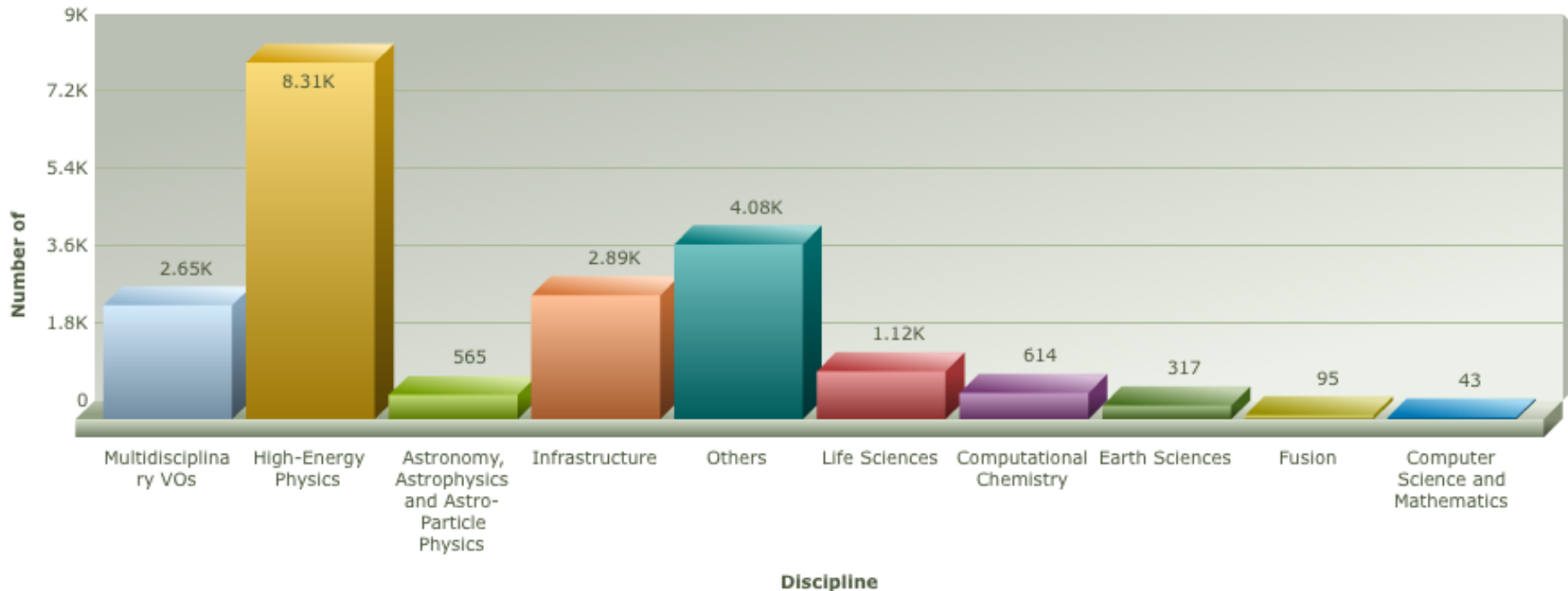
25 high activity VOs

1,264,922 jobs/day (+32% from April 2011)

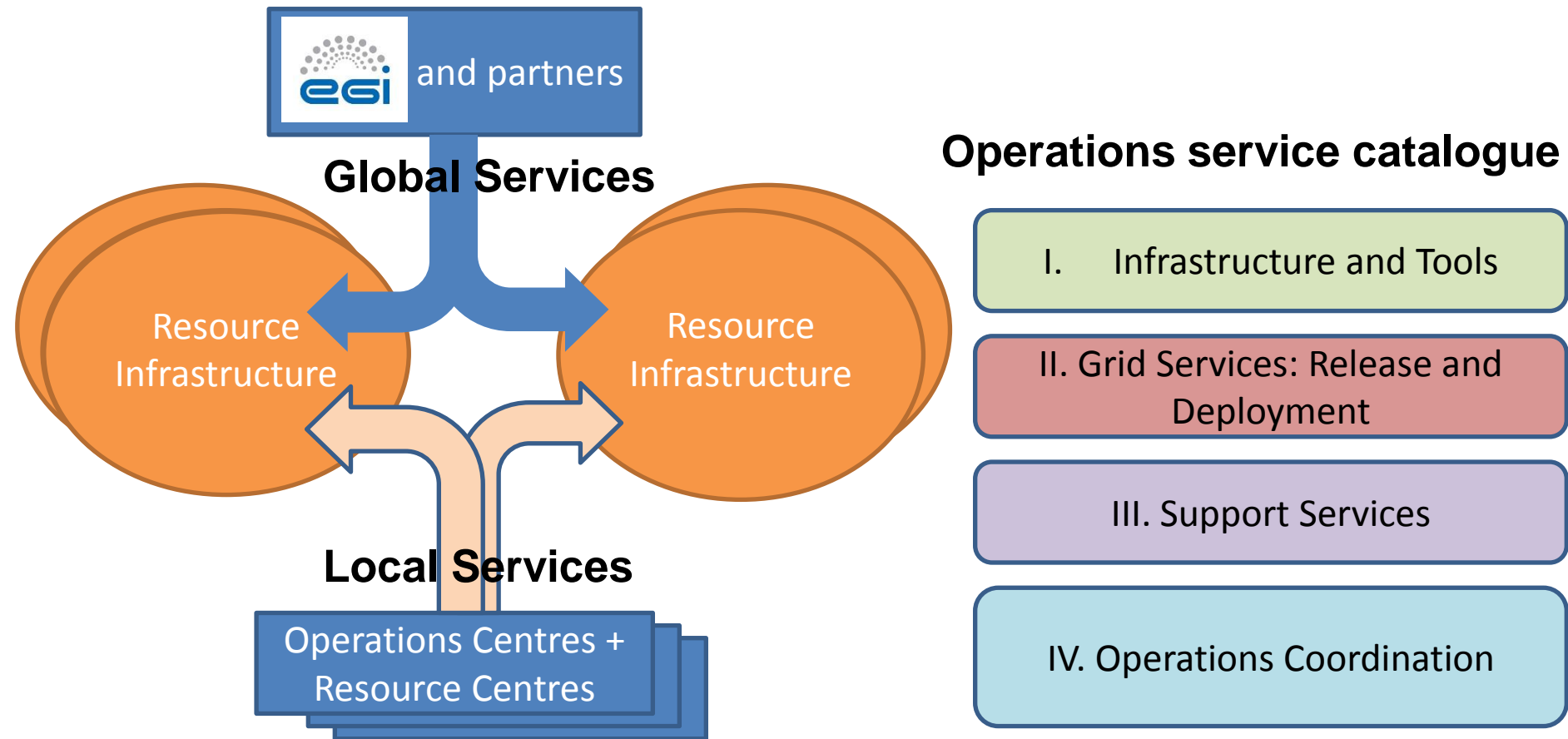


User Distribution per Discipline - Click on the column for more details

Generation Date : 2012-03-21T14:02:34+01:00



EGI services are provided **locally** by Operations Centres and **globally** by EGI.eu
 ([EGI Operations Architecture: Grid Service Management Best Practices](#), D4.3)



- Infrastructure and tools
 - Message brokers network (EGI.eu)
 - Service Availability Monitoring infrastructure (EGI.eu + NGIs)
 - Operations Portal (EGI.eu + NGIs – optional)
 - Accounting portal and repositories (EGI.eu + NGIs - optional)
 - Helpdesk (GGUS) (EGI.eu + NGIs - optional)
 - Grid configuration Database (GOCDB) (EGI.eu + NGIs – optional)
 - Security Monitoring tools (EGI.eu)
 - Metrics portal (EGI.eu)

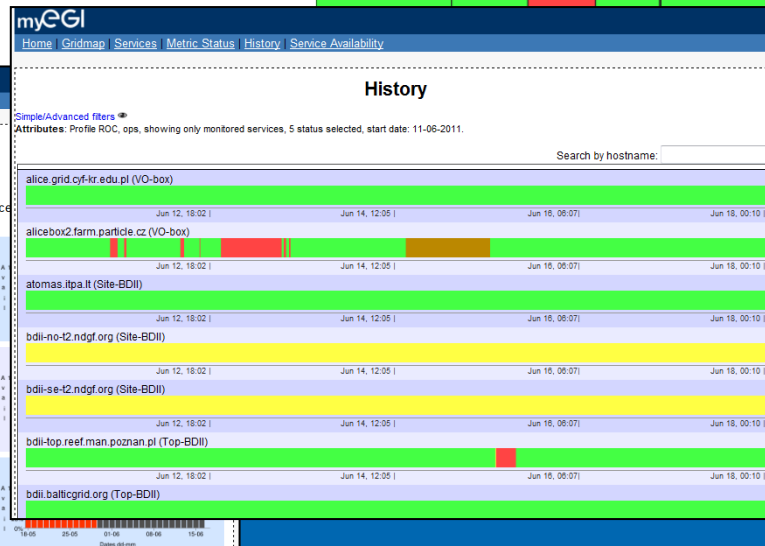
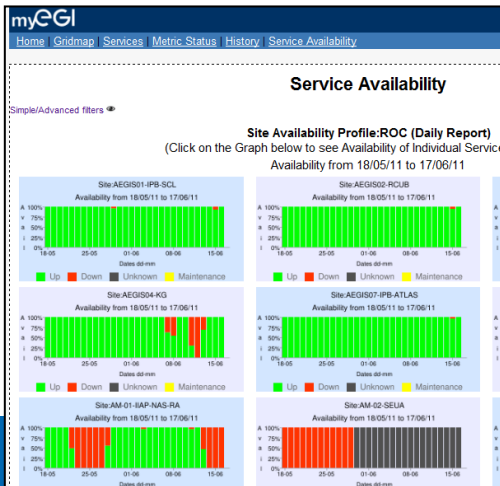
- Grid Services: Release and Deployment
 - Core Grid services (NGIs)
 - Catch-all Grid services and VO services (EGI.eu + NGIs – optional)
 - Interoperability (EGI.eu + NGIs – optional)
 - Staged Rollout (EGI.eu + NGIs)
 - Requirement Gathering (EGI.eu + NGIs)
 - Requests for Changes (EGI.eu + NGIs)

- Support Services
 - 1st level support (TPM and local support, EGI.eu + NGIs)
 - 2nd level support (EGI.eu + NGIs)
 - 3rd level support (EGI.eu through the technology providers)
 - Early life support (NGIs – community effort)

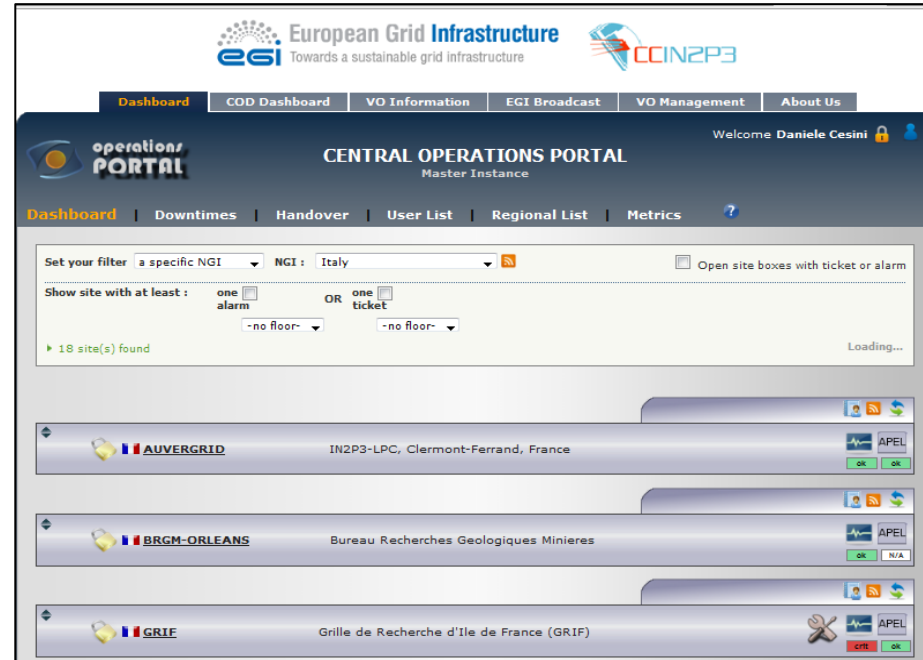
- Operations coordination
 - Grid oversight (EGI.eu + NGLs)
 - Operations coordination (EGI.eu + NGLs)
 - Availability management (EGI.eu + NGLs)
 - Service Level Management (EGI.eu)
 - Security Management (EGI.eu + NGLs)
 - Documentation (EGI.eu + NGLs)

SAM: monitoring framework for RCs and services

- test submission framework: based on the Nagios system and customised by the Nagios Configurator Generator
- ARC, gLite GLOBUS and UNICORE
- data source of Availability/Reliability statistics



- [Operations Portal](#) (CNRS)
- Operational Dashboard → Display of alarms in case of grid failures with possibility to open incident records (GGUS)
- Broadcast tool for operational communication to VOs, Resource Centres, NGIs etc
- VO Identify Cards → definition of VO contacts, resource requirements, AUP



The screenshot displays the 'CENTRAL OPERATIONS PORTAL' Master Instance. The interface includes a navigation menu with options like 'Dashboard', 'COD Dashboard', 'VO Information', 'EGI Broadcast', 'VO Management', and 'About Us'. A user greeting 'Welcome Daniele Cesini' is visible. The main content area shows a search filter for 'a specific NGI' with 'NGI: Italy' selected. Below the filter, there are options to 'Show site with at least: one alarm OR one ticket' and a dropdown for 'no floor'. A message indicates '18 site(s) found'. The results list includes:

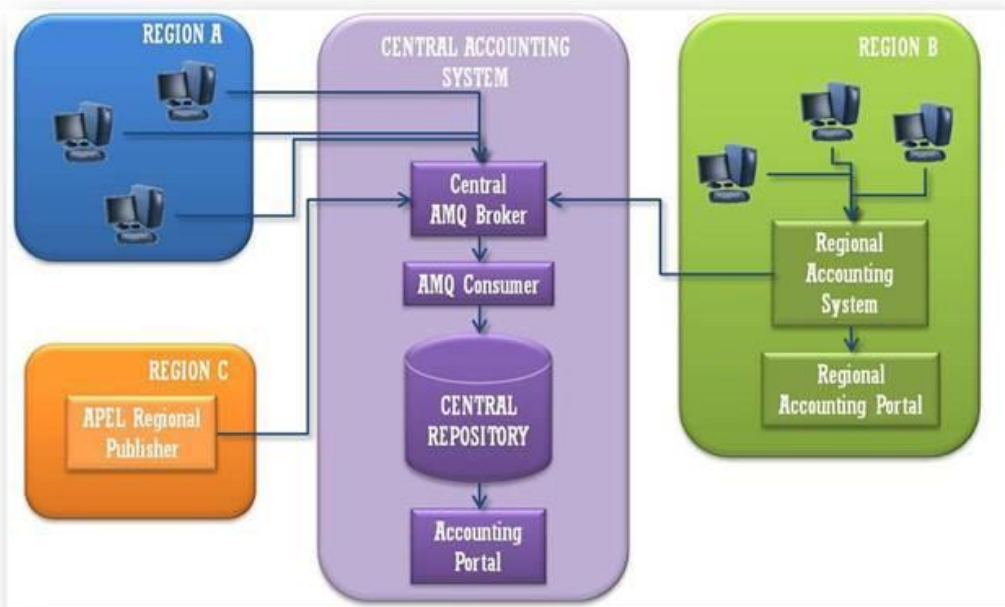
- AUVERGRID**: IN2P3-LPC, Clermont-Ferrand, France. Status: APEL, OK, OK.
- BRGM-ORLEANS**: Bureau Recherches Geologiques Minieres. Status: APEL, OK, N/A.
- GRIF**: Grille de Recherche d'Ile de France (GRIF). Status: APEL, OK, OK.

I. Infrastructure Services

Accounting Repository and Portal

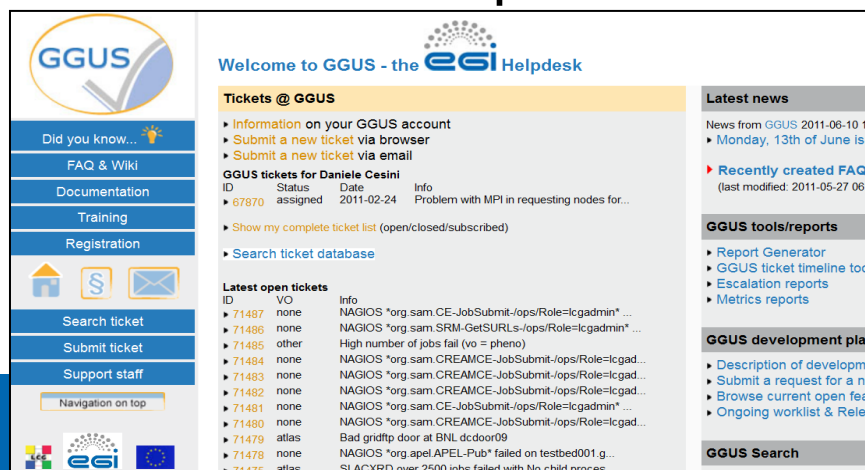
Collection and provisioning of information about usage of compute resources within the production infrastructure (will be extended to storage)

- ARC, gLite (GLOBUS and UNICORE)
- Central components:
 - repository and portal
- NGI components
 - Sensors at Resource Centres, national /regional repositories and portals



EGI Helpdesk (KIT) - Global Grid User Support - GGUS

- distributed system with a central component interfaced to NGI helpdesks
- 1st/2nd and 3rd level support
 - Operations
 - Operational tools
 - Middleware ARC/dCache/gLite/GLOBUS/UNICORE
- Interfaced to Open Science Grid helpdesk



GGUS

Welcome to GGUS - the EGI Helpdesk

Tickets @ GGUS

- ▶ Information on your GGUS account
- ▶ Submit a new ticket via browser
- ▶ Submit a new ticket via email

GGUS tickets for Daniele Cesini

ID	Status	Date	Info
▶ 67870	assigned	2011-02-24	Problem with MPI in requesting nodes for...

▶ Show my complete ticket list (open/closed/subscribed)

▶ Search ticket database

Latest open tickets

ID	VO	Info
▶ 71487	none	NAGIOS *org.sam.CE-JobSubmit-/ops/Role=lcgadmin* ...
▶ 71496	none	NAGIOS *org.sam.SRM-GetSURLs-/ops/Role=lcgadmin* ...
▶ 71495	other	High number of jobs fail (vo = pheno)
▶ 71484	none	NAGIOS *org.sam.CREAMCE-JobSubmit-/ops/Role=lcgad...
▶ 71483	none	NAGIOS *org.sam.CREAMCE-JobSubmit-/ops/Role=lcgad...
▶ 71482	none	NAGIOS *org.sam.CREAMCE-JobSubmit-/ops/Role=lcgad...
▶ 71481	none	NAGIOS *org.sam.CE-JobSubmit-/ops/Role=lcgadmin* ...
▶ 71480	none	NAGIOS *org.sam.CREAMCE-JobSubmit-/ops/Role=lcgad...
▶ 71479	atlas	Bad gridftp door at BNL dcd00r09
▶ 71478	none	NAGIOS *org.apel.APEL-Pub* failed on testbed001.g...
▶ 71475	atlas	SLACXRD over 2500 jobs failed with No child proces...

Latest news

News from GGUS 2011-06-10 12:00:00
 ▶ Monday, 13th of June is a

▶ Recently created FAQs (last modified: 2011-05-27 08:30:00)

GGUS tools/reports

- ▶ Report Generator
- ▶ GGUS ticket timeline tool
- ▶ Escalation reports
- ▶ Metrics reports

GGUS development plan

- ▶ Description of developme...
- ▶ Submit a request for a ne...
- ▶ Browse current open feat...
- ▶ Ongoing worklist & Relea...


GGUS Search

GOCDDB (STFC)

- EGI relies on a central configuration database to record static information contributed by the resource providers as to the service instances that they are running and the individual contact, role and status information for those responsible for particular services
- Downtime management

Software distributions

- ARC
- dCache
- gLite
- GLOBUS
- UNICORE
- QosCosGrid software
- MAPPER



Resources

- Browse Sites
- Browse Services
- Browse ROCs/NGIs
- My Sites/Groups

Downtimes

- Recent & Planned
- Archives

About GOCDDB4

- Doc, Help & Support
- Development Status
- Credits

Search

Submit

User Status

Registered as:
Daniele Cesini

[View Details](#)

Portal Instance

Central Portal

Welcome to GOCDDB Central Visualisation Portal

GOCDDB is the official repository for storing and presenting EGI topology and resources information.

What information is presented here?

This portal presents a view of topology and resources information for the whole EGI infrastructure. This consists mainly of:

- Participating National Grid Initiatives (NGI)
- Grid Sites providing resources to the infrastructure
- Resources and services, including maintenance plans for these resources
- Participating people, and their roles within EGI operations

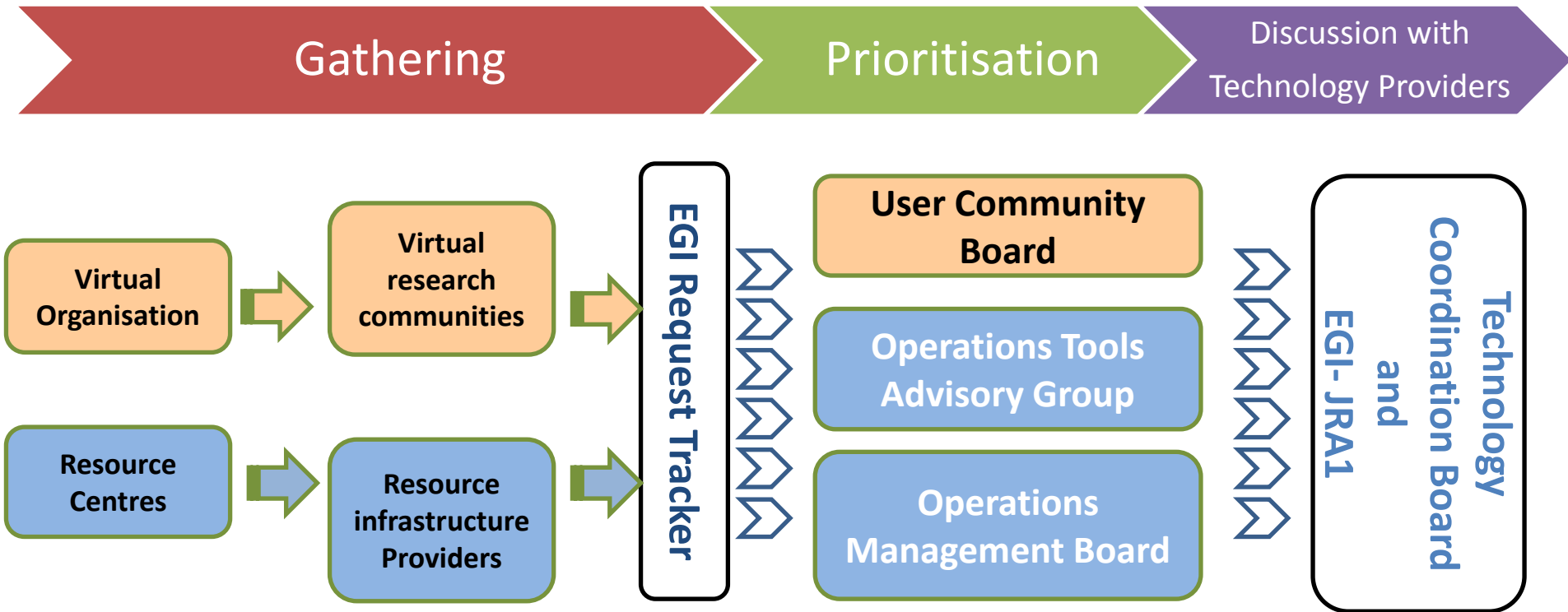
This is a visualisation tool only!
Data are provided and updated at regional level by participating NGIs, and are then gathered and presented through this central interface.

How to update information?

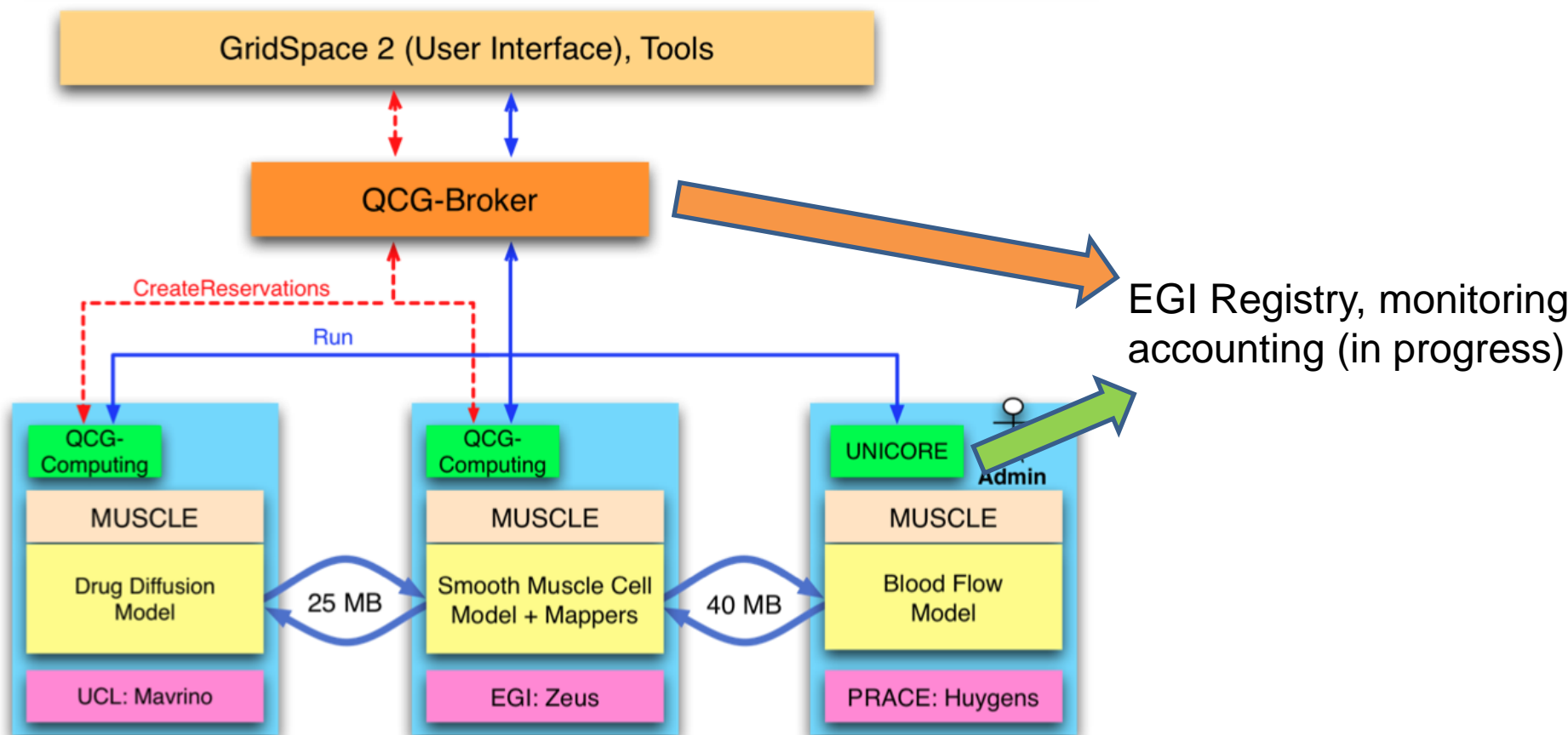
Unless your NGI uses a regional system fully synchronised with Central GOCDDB, updates can be made through:

- the [GOCDDB4 Central Input System](#).

GOCDDB is developed by Rutherford Appleton Laboratory, STFC, UK on behalf of EGI.eu. Licensed under the [gLite Software \(Apache\)](#) License.



- Collaboration with MAPPER project (example of multiscale simulation Tightly coupled scenario)
- NGI_PL, NGI_NL, NGI_DE, NGI_UK



Courtesy of I. Saverchenko

- EGI/PRACE consolidated collaboration on security policies
 - Participation to **Security for Collaborating Infrastructures (SCI)**
- Which support structure for HTP/HTC user communities?
 - Integrated helpdesk
 - Integrated 1st level support