The European Grid Infrastructure Collaboration

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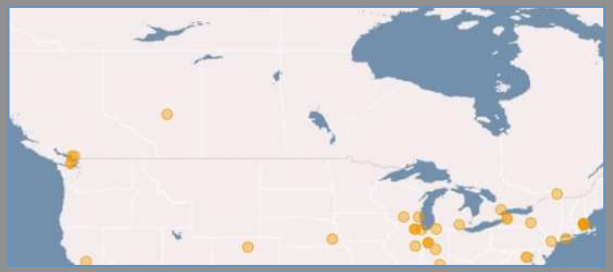
European Grid Infrastructure (EGI)

- **European**
  - Over 35 countries
- **Grid**
  - Secure sharing of IT resources
- **Infrastructure**
  - Computers (clusters & PCs)
  - Scientific data
  - Applications
  - …. ***and beyond!!***

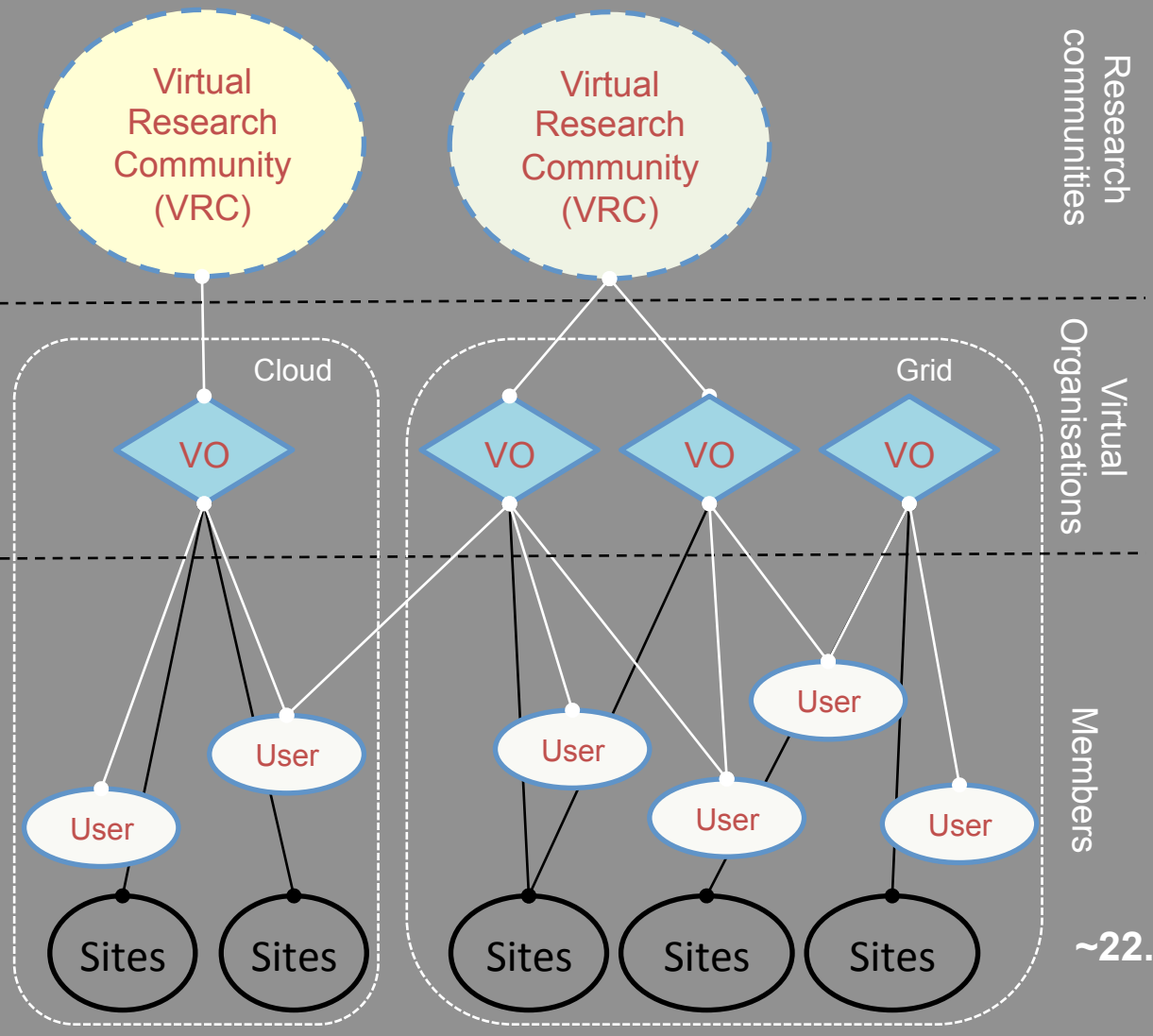
For European researchers and their international collaborators

Key resource providers in EGI: National Grid Infrastructures



Metric	Value (August 2013)
Nb. of resource centres	340
Nb. of CPU cores	373,800
Disk (PB)	235 PB
Tape (PB)	170 PB
Nb. of computing jobs	1.6 million/day

A multi-disciplinary e-infrastructure http://www.egi.eu/community/



Most active user groups:

- High Energy Physics
- Astronomy & Astrophysics
- Life Sciences
- Earth Sciences
- Computational Chemistry
- Fusion
- …

~22.000 users, ~230 Registered VOs:
http://operations-portal.egi.eu/vo

EGI's strategic focus areas

Virtual Research Environments

- Integration & support of scientific environments

Operational Infrastructure

- Operate a European wide grid infrastructure
- Build a federated cloud infrastructure

Community & Coordination

- Governance
- Communication (inreach, outreach)

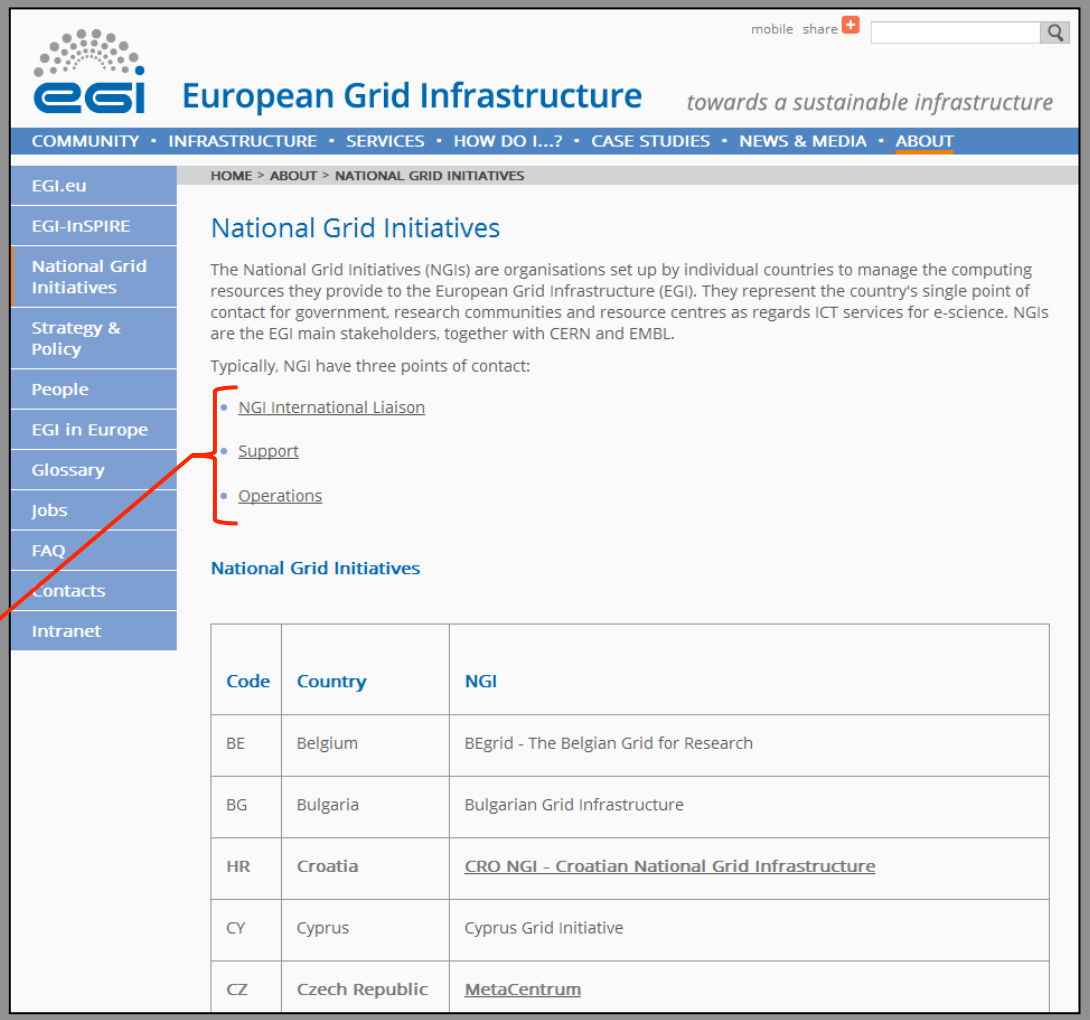
Virtual Research Environments

- **Applications Database**
  http://appdb.egi.eu
  - Search by scientific discipline
  - Search by type
  - Search by country
- **Use**
  - Scientific applications
  - Science gateway portals
  - Workflow systems
  - Developer tools
  - Middleware software
- **Interact**
  - Follow updates (RSS, Atom)
  - Provide feedback (Rate & Comment)
  - Contact application developers

Community and user support: NGI support teams, EGI.eu

- **NGI:** the country's single point of contact for government, research communities and resource centres as regards ICT services for e-science.

- Has named contact for:
  - International liaison (for EGI.eu)
  - Support (User)
  - Operation (Infrastructure)



Summary

- EGI is a multi-disciplinary e-infrastructure
  - Federated, with resources and support provided by the National Grid Infrastructures
  - Established grid services, emerging cloud platform
  - Software tools and applications through the EGI Applications Database