

EGI: Cost considerations of HTC service provision - the EGI.eu model

Steven Newhouse
EGI.eu Director

- Cost of federated service provision
 - Coordination services (human)
 - Coordinating services (technical)
 - At national and European levels

- Resource Centre

Focus of e-Fiscal

- Infrastructure (building, cooling, electricity)
- Hardware (compute, storage, networking)
- Software (commercial, open source developers)
- People (administration, support, management)

- Raised awareness of cost within EGI
 - Will help to increase transparency
- Understanding of costs within EGI
 - Hardware, software, staff, electricity, ...
- Benchmarking between NGIs and:
 - NGIs
 - Commercial providers

- Charging users for resource use:
 - NOT for something they already own
 - Exploring how to pay-for-use in EGI
- Charging users for federated infrastructure:
 - Cost for EGI.eu and NGIs
 - Essential for consistent inter-site usage
 - Required for distributed collaborative use

- Currently:
 - GDP based participation fee
 - Ranging up to €180K a year for a 'rich' country
- Future
 - EGI resources: €0.05/CPU/Hour
 - Coordination: 0.27c/CPU Wall Clock Hours
 - Overhead of coordination ~5%
 - Charge submitters, resource providers, who?

Should these costs be more user focused?

- Integrated into the EGI Compendium
 - Cost of providing the hardware resources
 - Cost of staff and supporting services
 - Simple financial model
- Benchmarking current costs
 - Done: EGI compute vs. public cloud
 - Emerging: EGI cloud vs. public cloud
- Raising awareness of the cost issues
 - Needs to be completed across **all** NGIs

- Exploring a pay-for-use model in EGI
 - Later today
- EGI Compendium to record resource costs
 - Later this year and every year
- Cost comparison with cloud resources
 - EGI vs. public cloud
- Cost of federation and the critical services
 - Wednesday

- Many sources of cost in HPC
 - Resources
 - Coordination
- e-FISCAL focus was on computing
 - Ignored cost of storage and networking
 - ... and other costs within EGI
- Raised awareness of cost analysis
 - Becoming a requirement nationally & EU