

EGI strategy and Grand Vision

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- Providing Enabling Services to Researchers
 - establishing user boards to manage the definition and development of requirements and roadmaps, user-centric development
- Operate an Unprecedented European Capability for High Throughput Data Analysis
 - EGI distributed resource pool, resource allocation, private and public sector, pay per use, federated cloud infrastructure

- Provide Flexible Virtual Research Environments
 - distributed computing and data infrastructure
 - service co-development, researchers, service and technology providers
- Development of human capital
 - NGI operations management, policy development, technical outreach, technology experts

- Data are the driver
 - Store & move
 - Process
- No “one size fits all” research communities
- Different approaches need specific solutions
- Higher involvement of user communities in the process of
 - Defining the e-infrastructure and its services
 - Pushing the evolution forward
- User-centric development model

- Scientists need access to properly scaled e-infrastructure
 - Going from smaller through large to huge
 - Covering storage&network&computing
 - Resources at the “huge” end beyond scope of institutes or even single countries
- EGI operates the largest distributed e-infrastructure
 - both compute and data
- Cloud technology as the enabler
 - Federated cloud infrastructure
 - >10M cores & >1 Exabyte of storage

- A single service not sufficient
 - Combination of services (workflows) integrated in a proper supportive environment
 - Distributed
 - Combine all aspects
- Flexible virtual research environments
 - Emphasis on software co-development
- Development followed by the operation
 - Joint undertaking of researchers and IT/e-infrastructure experts and service providers

- Experts the highest asset
 - EGEE/EGI helped to prepare at least one generation of IT/e-infrastructure experts
- Human networks
 - Between institutes/countries
 - Between scientific domains
- Virtual centers of excellence
 - Training
 - Application development
 - Consultancy

- Access to the advanced and continuously evolving e-infrastructures
 - Data driven
 - Data analysis
- Partnership within human networks
- Collaboration potential
- Support for excellent science
 - Not slowed down due to unavailability of resources/environments

- Organizational aspects
- Higher integration of individual aspects
 - Network
 - Compute
 - Data
- Distributed Research Infrastructure
 - NGIs as building stones
 - Closer collaboration with other e-infrastructure providers

- EGI currently 35 organizations
 - EGI.eu as a coordinator
- Similar number for NRENs
 - Dante & Terena
- A Distributed Open Computing and Data Infrastructure for Europe
 - Efficient use of public investment
 - High impact on European science
 - Coordination – lowers the overall cost

- Long term operational experience
- Pan-European coverage
 - >35 countries
 - >21000 researchers using the infrastructure
- Innovative approaches
 - Federated clouds
 - Federated AAI
- Coordinating body and governance structure
 - EGI.eu
- Evolution
 - Towards DRI
 - Towards co-development

A single “e-infrastructure Commons” for knowledge, innovation and science, as a living ecosystem, which is open and accessible and continuously adapts to the changing requirements of research

Evolving e-infrastructure that provides high throughput data analysis capability for European scientists