

### EGI: an Open e-Infrastructure for the Digital European Research Area and the Humanities

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- Introduction: the road to collaboration...
- ERA and e-Infrastructure
- The European Grid Infrastructure
  - The EGI ecosystem
  - Virtual Research Communities in EGI
  - Europe 2020
- Digital Cultural Heritage and the Humanities
- Conclusion



## Introduction

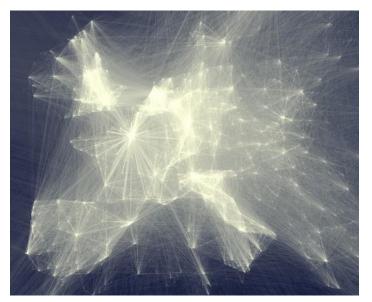
- The road to collaboration
  - From lone scientist and small groups...
  - To multi-disciplinary border-crossing collaborations
- Big Science requires
  - new instruments
  - vast amounts of data
- EGI aligned to EU 2020 vision:
  - Community building
  - Operational infrastructure
  - Virtual Research Environments



Joseph Priestly



DC-MAP Kick-off meeting



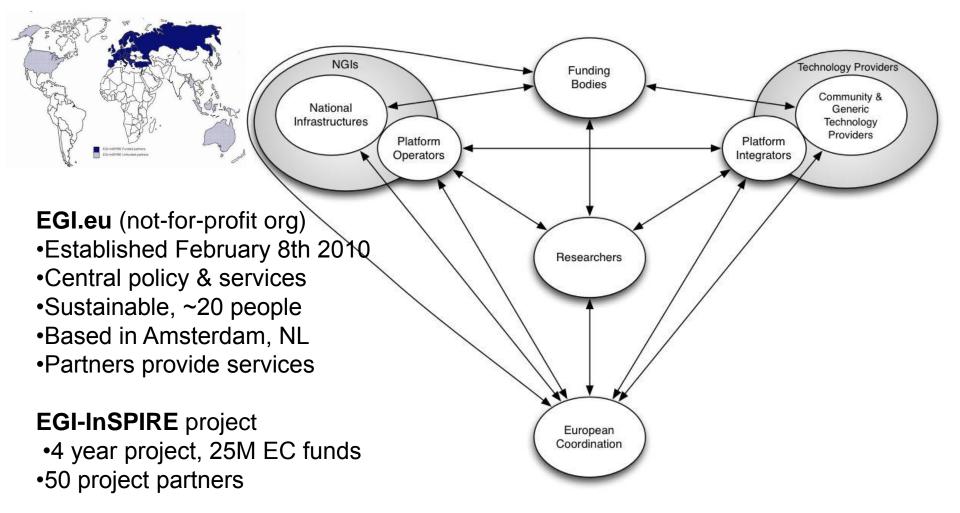
map of scientific collaboration



- ERA The European Research Area
  - A transnational combination of research centres, ongoing programmes and projects
  - Offers the benefits of the '*fifth freedom*'
  - Free circulation of researchers, *knowledge* and technology
- Supported by EGI & other infrastructures
  - GEANT (networking),
  - PRACE (supercomputing)



#### The European Grid Infrastructure (EGI)



#### EGI: resource infrastructure providers

| Resource<br>Centres | EGI-InSPIRE & EGI Council<br>members | 326 | Integrated EGI-InSPIRE Partners and EGI Council<br>Members |
|---------------------|--------------------------------------|-----|--|
|                     | Including integrated RPs             | 352 | Internal/External Resource Providers                       |
| Countries           | EGI-InSPIRE & EGI Council<br>members | 42  | External Resource Providers (integrated)                   |
|                     | Including integrated RPs             | 54  | Peer Resource Providers                                    |

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#### EGI-InSPIRE RI-261323



- Europe 2020 vision captures European Commission's goals for the future
- EGI will be a key enabling foundation for the European Research Area through:
  - Community building and coordination
  - Operational infrastructure (inc. virtualisation)
  - Virtual Research Environments (VREs)



#### Community building & coordination





#### EGI Technical forum, Prague

17-21 September 2012











EuroMed 2012, Limassol, Cyprus



# Call for Participation is OPEN!

**Location:** University Place conference centre in Manchester, United Kingdom

Date: 8-12 April 2013

**Host:** UK NGI (GridPP and National e-Infrastructure Service (NES) partnership)



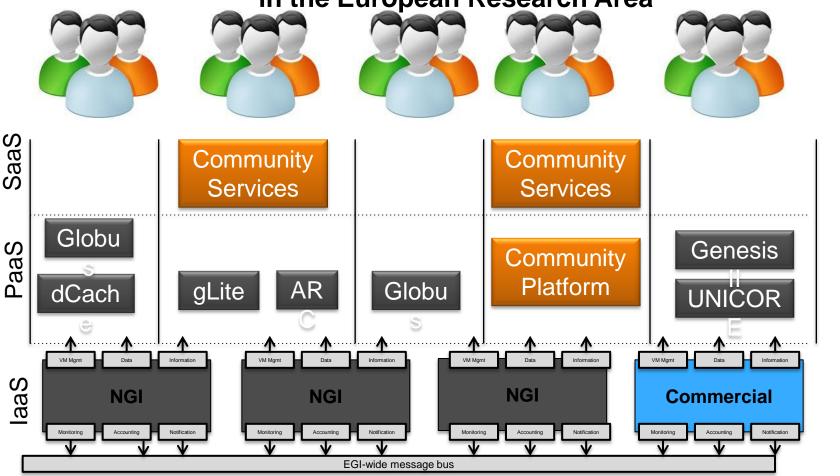




Participate now: <a href="https://indico.egi.eu/indico/conferenceDisplay.py?confld=1222">https://indico.egi.eu/indico/conferenceDisplay.py?confld=1222</a>



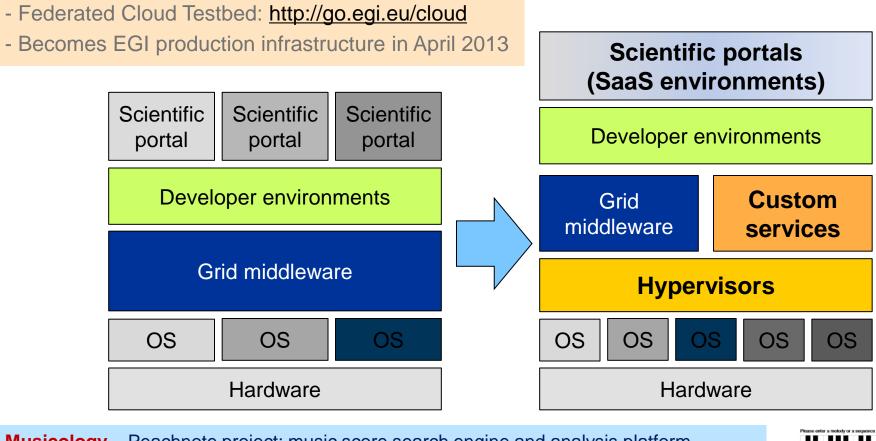
Personalised environments for individual research communities in the European Research Area



EGI.eu Coordination Core software and support



#### **EGI Federated Cloud**



 Musicology – Peachnote project: music score search engine and analysis platform.

 Linguistics – CLARIN project: scalable 'British National Corpus' service (BNCWeb).

 Digital Cultural Heritage – Use cases may emerge from DCH-RP project

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 15

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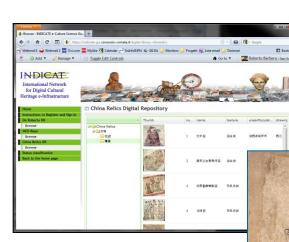


# Communities build their own gateways:EGI will collect and promote tools needed

EGI will support the integration of services



EGI Training Marketplace & Applications Database



The e-Culture Science Gateway



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EGI has priority to expand the user base in terms of both absolute numbers and diversity. Engagement with Humanities researchers:

- CLARIN and DARIAH
  - Common Language Resources and Technology Infrastructure
  - Digital Research Infrastructure for the Arts and Humanities
  - Letter of Intent signed
  - Needs: long-term data storage and availability, curation of datasets, hosting and monitoring of middleware services, authentication and authorisation services
- DCH-RP Digital Cultural Heritage Roadmap for Preservation
- ASTRA Project
  - Ancient Instruments Sound/Timbre Reconstruction Application
  - Archeological remnants used to create complex models



#### DCH-RP – Roadmap for Preservation



#### **DCH-RP project summary**

2 year coordination action to design and validate a: **Roadmap for Preservation** 

#### Key features of project:

- Many stakeholders involved:
  - DCH experts, infrastructure providers, developers
  - Memory Institutions participating
- Infrastructure as a Service will be investigated
- Authentication and Authorisation issues to be addressed
- Best practices will be captured and analysed
- Proofs of Concept will be tested and evaluated



Images courtesy of Promoter S.r.l.



### **Community building and coordination**

- EGI representatives attend DCH meetings:
  - NEERI 2010, INDICATE, DC-NET and EuroMed 2012
- DCH and Humanities-relevant sessions at EGI Forums
- EGI-InSPIRE part-funded by the EC e-Infrastructure Unit, now under the DG Connect umbrella which leads Digital Agenda
  - Always interested to reach out to other projects
- EGI tracking other initiatives in the DCH research landscape:
  - Gallica to digitise and distribute French texts
  - E-Heritage from Microsoft covering Asia-Pacific
  - Google Books Library project



EGI provides significant added value to multidisciplinary research through:

- Uniform and reliable computing resources
- Allowing researchers to focus on research
- Services that cross organisational and national boundaries
- Effective return on Europe's e-Infra investments
- Enabling of knowledge transfer and support
- Promotion of open science

Digital Cultural Heritage research is key part of this



EGI and DCH

### Thanks!



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#### Content courtesy of EGI.eu and DCH-RP