



The Development of the European e-Infrastructure Landscape

Implications for ESFRI projects?

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The e-Infrastructure Reflection Group

Founded to *provide strategic advice and guidance on the development of a European e-infrastructure for science and research.*

- Delegates appointed by ministries – represents nations (EU member states and associated states + EC)
- Vision: *an open and innovating e-Infrastructure that enables flexible cooperation and optimal use by international user communities of all electronically available resources.*

e-Infrastructure includes

- Networks/Connectivity
- Computing (HPC, distributed computing,...)
- Data
- Tools and services

Note the wide scope: e-Infrastructure supports research (all types) and other research infrastructures (all types)

e-Infrastructure is everywhere...

International research collaboration and research infrastructures produce an...

- ...explosion of digital data...
- ...which should be made widely available...
- ...to be analyzed by rapidly developing computers and e-Science tools and techniques

All international research infrastructures and large research collaboration need sustainable e-Infrastructure!

The current European e-Infrastructure landscape

- Networks DANTE, Terena, GEANT
- Computing PRACE, EGI
- Data All above + EUDAT (in different ways)
- Tools and Services All above (different T&S)

- Open Access OpenAIRE

- Disciplinary e-Infrastructures (e.g. in ESFRI projects)
 - Sometimes coordinated with the general e-Infrastructures above at international and/or national level

A potential risk...

If e-Infrastructure co-ordination is not improved further, we might...

- miss opportunities for coherent basic e-Infrastructure services
- miss opportunities for cost-efficient implementation and operations
- miss opportunities for creating sustainable e-Infrastructures

This would in turn result in missed opportunities for both disciplinary and cross-disciplinary research

Now is the time to make sure this does not happen!

Actions taken

- Joint ESFRI/e-IRG recommendations on data management (2013)
- e-IRG recommendation: e-Infrastructure Commons (2013)
- ESFRI observer in e-IRG and *vice versa*
- ESFRI has invited e-IRG representatives to be members of the ESFRI SWGs and Implementation Group (input to the ESFRI proposal format)
- e-IRG has formed an *Overarching WG* with these e-IRG reps.
 - Assigned as editorial board of next e-IRG White Paper: Best e-Infrastructure Practices for large-scale RIs
- e-IRG organises an open workshop in Rome November 10-11
 - The way forward of e-Infrastructures and their role in addressing the needs of research and education at large.

e-IRG White Paper 2013: Establish a single *e-Infrastructure Commons* for knowledge, science and innovation...

- through a joint effort between users, strategic actors and e-infrastructure providers, to attain an ecosystem in which ...
- users enjoy the freedom to easily choose and use the services they need, so that ...
- they can focus on doing of science, in (international) research collaborations.

Note that the building blocks exist or are being developed, but further co-ordination by the actors is needed.

The e-Infrastructure Commons (a simplified view...)

