

ESFRI, E-infrastructures & their Governance

Alf Game
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What is ESFRI?

- The European Strategy Forum for Research Infrastructures
- Advisory to the Science Ministers of Europe
- Two members from each country
- Secretariat provided by the European Commission
- Not a Commission body

What does ESFRI do?

- Maintains a roadmap of pan-European scientific infrastructures
- Based on submission and assessment by scientists
- Attempts to encourage its realisation
- Currently, 44 infrastructures across natural & social sciences and humanities
- Thematic working groups including one on e-science

What's on the roadmap?

- Currently, 44 infrastructures across natural and social sciences and humanities
- Costs: The Roadmap would add ≈ 2 billion €/yr to an ongoing budget of ≈ 10 b€/yr by national resources and 0,25 b€/yr by the EU
- Most currently receiving development funds from EC
- Very long term goal - unlikely that all will be realised!

Square Kilometre Array



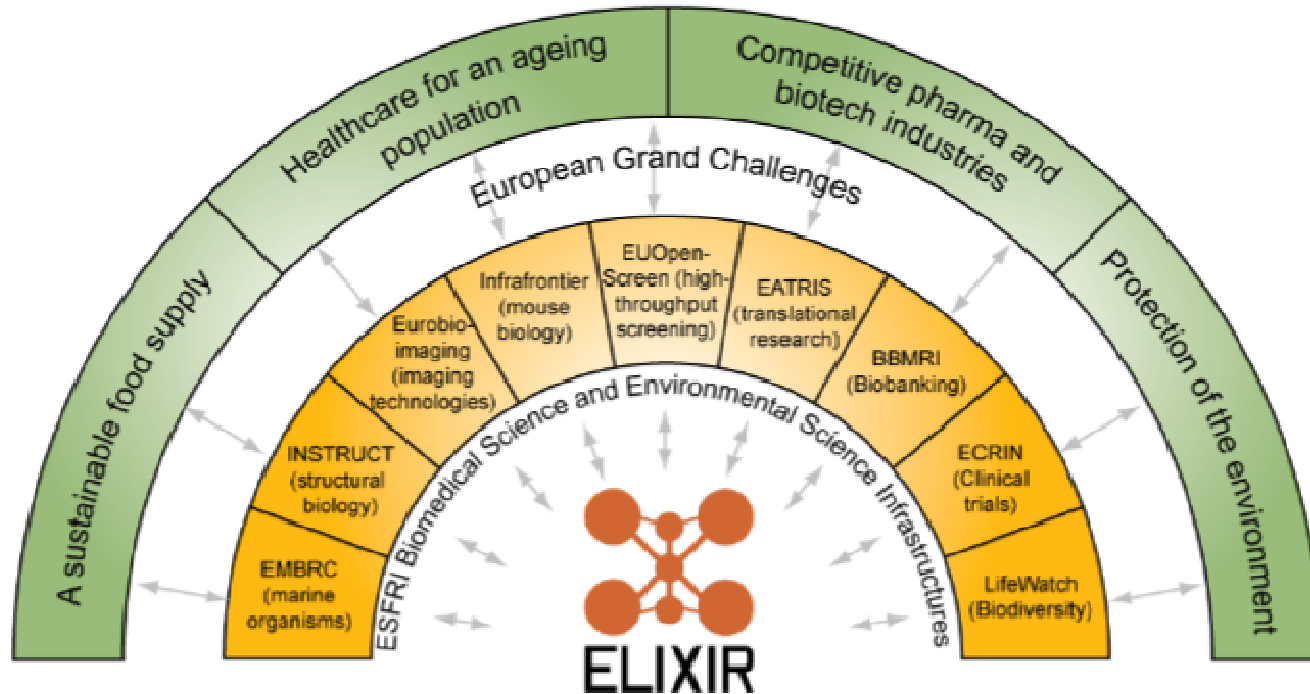
CLARIN

*Towards an integrated and interoperable
research infrastructure of language resources
and its technology enabling eHumanities*

*Easy access to Language Resources and Technology
for the Humanities community*



ELIXIR Support of the European Grand Challenges



ELIXIR supports the European Grand Challenges by providing Infrastructure for the other ESFRI Biology Projects.

ESFRI E-science Working Group Findings (2007)

- Most roadmap projects lacked e-science awareness – basing future plans on current e-science capabilities.
- Common problems and needs across many infrastructures
- Roadmap too focused on HPC?

Prejudices of scientific culture

- E-science seen as driven by needs of physics data e.g. catering for
 - Huge volumes
 - Limited variables
 - Few sources
 - High homogeneity
 - Limited specialist users
- Limited relevance to other areas of science and to much of industry, commerce and public life

Distributed infrastructures need..

- High performance in:
 - Data collection
 - Data storage
 - Data management
 - Data distribution
 - Data integration and interoperability
 - Data standardisation
- Parallel support for tools, models
- Training and user-friendliness

And...

- For people-specific data e.g. biomedicine and social sciences, confidentiality and security is a major issue
- Solutions to this issue are potentially of great commercial and social value

Communication needs – some statements of the obvious

- Better identification of common needs across disciplines – huge savings and more progress
- Better interaction between “developers” and “users” to make the latter aware of the potential for the future
- Outreach to industry, commerce and the public sector – it’s a two way traffic
- More E-science champions needed outside big physics and IT

(1) Defining a Pan-EU RI

- **Supports cutting-edge research, by peer-reviewed open service: level playing field for EU scientists**
- **Attracts and supports world-class researchers: acting as international agency**
- **“local” researchers must benchmark with best in the world: extensive improvement of quality**
- **RI’s techniques, services and management must be attractive: cutting-edge updating of technology**
- **Researchers, technicians and staff operate in an international context: advanced training&education**

(2) Threat and opportunity of being a Pan-EU RI

- **The “non economic aspect” is enhanced by the “agency” activity: hosting for free...= losing money?**
- **But Research, as well as Development and Innovation, are enhanced by international evaluation and management: SAC, MAC, Users council, international managers, students, visitors....**
- **Management must address excellence in very diverse issues (e.g. Science, education & training, industry and tech-transfer, environment & energy, socio-economic returns, ...fund-raising, communication.....)**
- **Need a specific “narrative” (mission, vision...), addressing shareholders, stakeholders and public**

Thank you

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www.cordis.europa.eu/esfri/