

What are the next steps in developing world class Research Infrastructures (RIs) in Europe?

Summary from
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Why Pan-EU RIs?

- Peer reviewed, RI based, service in frontier research has EU added value attracting best researchers & technicians in the world, helping to benchmark EU research to the best level
- Service at this level develops cutting-edge technologies, education and management with EU outreach, producing stronger socioeconomic returns on investments
- The ERA concept was born in the RIs, which have a long EU history (from the medieval libraries to the Renaissance; from the EIROs: CERN, EMBL, etc. and recovery after WW2)
- This must now extend to all fields, from Human to Physical Sciences, and to the about 300 existing potential Pan-EU Ris, driving the improvement of more than €100b investment, and of most other R&D and educational investments
- Pooling of national resources of RIs has been successful, is increasing, due to FP catalysis = €0.25b per year, and to ESFRI.

Next steps needed

- **Clear scientific challenges and shared RIs bring researchers together: governance must drive this to build “ecosystems”**
- **The process of RIs integration by excellence cannot feed only on pooling and improving the existing resources: new challenges need new resources, and a single ERA voice at global level**
- **This requires dedicated funding to drive long term excellence, similar in ambition to the ERC and other EU actions**
- **Infrastructures are also “peopleware”: international attraction & education with EU circulation must be achieved: need EU status**
- **Rigidity in budgets and economic crisis can drive protectionism and reverse the process. ESFRI trust building may not be enough.**
- **Distributed and e-Infra facilitate open access but both require sustainable funding.**
- **Use of structural funds and role of EIB are to be further refined to be useful in this context**
- **.....and governance derived from best practices can be borne!**

Strong functional definition needed:

- **An ESFRI (ERIC) RI provides:**
 - **Excellence, recognized at EU + international level (in scientific research, education and technology)**
 - **Managerial excellence to deliver top-level services, attracting a widely diversified and international community of scientific users**
 - **Open access through international competition based on excellence (selection by peer review, since demand exceeds supply) + results published in the public domain**
 - **Access either for training or for proprietary research can be offered additionally, not interfering with peer-reviewed access**
 - **Clear pan-EU added value (fulfilling at least one of the following criteria, independently of size): at least 30% of users coming from non-host, and/or uniqueness (demand at least two times larger than availability), and/or integration in distributed international facilities.**

The vision: in 2020....

- **The competition-based open access of Pan-Eu RIs is funded by the ERA “body” and they are evaluated for their quality.**
- **All Regions participate and compete to host Pan-Eu RI’s, aiming at the socio-economic returns of excellent research, by supporting their construction and the “local innovation ecosystem”**
- **The ERA body negotiates and supports Global RIs.**
- **.....and.....**

...The vision: in 2020....

- **Research & technical staff can work at every place due to EU wide mobility status**
- **The potential of RIs in responding to grand challenges and competitiveness is fully exploited: “new Renaissance”**
- **National and EC resources are pooled (integrated) in the ERA**
- **Better understanding and prediction of socioeconomic returns attracts public-private financing**