

Global Science Forum- ESFRI
Workshop on assessing public expenditures committed to RIs
9 July 2024
Virtual meeting

Research infrastructures (RIs) play a critical role in the scientific enterprise. They are now an essential component for all scientific domains and not only allow to push the boundaries of existing knowledge and the production of breakthrough research but they also play a major role in structuring the research system through the development of networks, of user communities and of rich ecosystems that bring together many research and innovation stakeholders.

This increasing role of RIs in the science system, and the increasing complexity of RIs, has led to their a steady increase in their funding requirement: not only have RIs become a necessity in all scientific disciplines, but the cost of individual RIs can reach billions or even tens of billion euros. While data is readily available on total research funding in each country, the same cannot be said for the share of funding specific to RIs. Only a few countries are currently able to provide rough estimates, and even in such cases, estimates do not always reflect the contributions from all domestic players. Estimating RI funding is complex for several reasons:

- There is no single definition of what is a research infrastructures. In recent years, the term has been used to define single large research equipments (such an electron microscope) up to very large distributed networks of monitoring sensors (such as arrays of buoys), from virtual data bases to complex international projects spanning over several continents... While there is an agreement on a few common general principles (typically RIs are considered as facilities that provide resources and services for the research communities to conduct research and foster innovation in their fields, and usually are open to users outside the laboratory or institution that hosts the facility), this can still include a vast diversity of equipments or sets of instruments, scientific collections, archives, scientific data infrastructures etc.
- Funding may address the different phases of the life cycle of RIs (conception/design, construction, operation, upgrades, phasing out)
- RI funding may come from very different sources, supporting different elements (investment, staffs, projects, international partnerships...) and this is often very context specific as countries have different mechanisms and processes to support these different elements

While there are indication that RI investments are indeed increasing steadily and, in some case, the funders indicate that this has reached their funding capacity, it is, however, unclear whether the share dedicated to infrastructure is growing commensurately or faster than total public investments into R&D, and how RI funding requirements are distributed between new RIs, participation to international RI projects, needs for upgrading existing facilities or just operating RIs and providing access to all interested users.

The gathering of RI funding data (e.g., RI funding trends, funding distribution along different needs...) alongside trends in research funding would enrich discussions around RI planning and financing for national funding and decision-making stakeholders.

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| 15:00-15:45 | Possible options to standardise public expenditure on RIs data collection What minimal set of data would be necessary to respond to current and future demand? Can standardised definition and data information be generated and how ? <i>Open discussion: OECD NESTI/STP, EC, ESFRI...</i> |
| 15:45-16:00 | Closing words and follow up |
