Position Paper

Driving Innovation and Collaboration: A Strategic Vision for European Life Science Research Infrastructures in Framework Programme 10

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Introduction

European Life Science Research Infrastructures (LS-RIs)[1] work together to benefit the life science community and play a pivotal role in enabling ground-breaking research as part of the ESFRI Roadmap. LS-RIs were established and are mostly funded by Member States, with the European Commission providing competitive-based funding to support cutting-edge life science and health research. They offer comprehensive services and expertise for researchers across Europe and beyond.

Since 2008, the LS-RIs have demonstrated successful collaboration in various initiatives, including joint activities in ERIC Forum and 'cluster' projects such as EOSC Life and CORBEL. Furthermore, they are instrumental in both leading and actively shaping INFRA-SERV projects, fuelling innovation and strengthening collaboration at the forefront of scientific research. LS-RIs also substantially contribute to scientific discovery and progress in emergency situations, as showcased through the prioritisation of COVID-19 research and the immediate mobilisation of resources to counter the pandemic from its outset, including the collaborative cross-RI SERV actions BY-COVID and ISIDORe. In order to build on these successes and ensure long-term sustainability of the vital support RIs offer to the entire European research community, continued support by the European Commission through its next Framework Programme will be needed.

The European Commission is currently developing plans for the Tenth Framework Programme (FP10), a key funding initiative shaping the future of research and innovation across the continent. Like Horizon Europe, the forthcoming FP10 is expected to be one of the world's largest research funding programmes. Its priorities, budget distribution, and operational framework will significantly influence the work of LS-RIs. This paper presents a collective position by the European LS-RIs, with the following recommendations for the upcoming FP10:

1. **Strengthening established European Research Infrastructures as strategic assets**
    a) **Securing adequate funding**
    b) **Fostering use and visibility of RIs**
    c) **Providing cluster funding**
    d) **Allocating resources for impact assessment**
2. **Leveraging the emergent synergies of INFRA-SERV projects and continue TNA budget**

[1] The LS-RIs are pan-European organisations, with multiple institutes located in different European countries (i.e. distributed RIs). Each LS-RI consists of a headquarter or hub, which is the coordinating unit of the RI, and national nodes. Each country being part of the RI has one or more national node(s), i.e. a facility like a research institute. For further information see: https://lifescience-ri.eu/home.html

1. *Strengthening established European Research Infrastructures as strategic assets*

Research Infrastructures (RIs), including LS-RIs, have been pivotal in advancing the European Research Area. Therefore, resources should be directed towards strengthening mature RIs as strategic assets, leveraging them for new initiatives and tasks, and fostering collaboration with other infrastructures, established or emerging. This implies the provision of adequate support to existing RIs as it is crucial to ensure that they are fully empowered to launch new initiatives and tackle future science and technology challenges. Such a strategic approach will ensure that resource allocation is optimised while maximising the benefits generated by RIs both in the science area and in the wider socio-economic space. The emphasis should thus be on how existing European Research Infrastructures can meet the needs of scientific communities either by upgrading or, when relevant, adding new areas/repurposing for new challenges. This will confer RIs with the ability to further enhance their scientific relevance and ensure that the research ecosystem remains resilient, collaborative, and at the forefront of innovation. Such an approach will optimise the use of existing Research Infrastructures and build on previous investment, thus avoiding duplication. Furthermore, this will foster a positive culture of continuous improvement within European scientific communities.

a. *Securing adequate funding*

In recent years, many new RIs have been created to tackle effectively key societal challenges, such as health crises, pandemics, food security, climate change, biodiversity loss, etc. While financial needs have grown, however, the budget allocated by the RI programme has not increased proportionally to support fully RI operations, especially considering increasing operational costs. The FP10 programme's budget allocation should reflect this need, ensuring that RIs are adequately funded to continue to meet major societal challenges, the needs and constant progress of science, and changing political priorities.

In addition, it is crucial that co-funding requirements for LS-RIs, and in-cash contributions for EU partnerships, be waived for participating European RIs in FP10, as vast majority of RIs are already funded by their Members States. Eliminating these financial burdens will enable broader participation of RIs, thereby fostering inclusivity and equity across Europe's research landscape. This approach will also ensure that resources are directed toward advancing scientific goals rather than meeting funding obligations, ultimately strengthening the impact and reach of the EU's research initiatives.

To overcome current obstacles of sustainability of European RIs, FP10 will furthermore require consolidation of funding initiatives, or when this is not possible enabling access to a diverse range of funding sources for RIs. Tackling complex societal challenges effectively necessitates collaboration among all relevant stakeholders. The current Framework Programme structure, however, with its various Work Programmes and funding regulations, often excludes certain entities from critical projects and partnerships. RIs offer valuable services that could greatly benefit these pan-European initiatives. To maximise synergies and minimise duplication, FP10 should enhance the participation of LS-RIs across its Work Programmes and strategic calls, thereby streamlining research efforts and increasing impact.

b. *Fostering use and visibility of RIs*

Overall, LS-RIs should be considered as tools to be used by the European research community. FP10 should facilitate more effective utilisation of RI services by projects funded under other themes and pillars of the programme. The use of RIs should, as a minimum, be recommended in all relevant pillar themes (Pillar II "Global Challenges and European Industrial Competitiveness", as well as Pillar III "Innovative Europe"). We therefore encourage the European Commission to specifically include the existing services of LS-RIs in future calls, including relevant pillars or ERC actions, to build on what was already funded and thereby prevent duplication of efforts.

c. *Providing cluster funding*

Providing cluster funding to Research Infrastructures in FP10 is urgently needed to ensure the continued advancement and competitiveness of European research. While cross-domain initiatives like OSCARS are a good start, they are simply not sufficient to meet the growing demands and complexity of the individual scientific domains. By funding infrastructures collectively and at scale (also outside the EOSC context), especially in the field of Life Sciences, the European Commission can enhance the integration of diverse scientific resources, accelerate the development of new technologies and processes in the domain of health, food, and life sciences generally, within an integrated One Health approach, and address diverse complex societal challenges more effectively. Without this critical investment, key opportunities to improve human, animal, plant and environmental health and provide answers to critical challenges, such as the adaptation to health crises, pandemics, food security, climate change, biodiversity loss etc., will be missed.

d. *Allocating resources for impact assessment*

In the context of FP10, the LS-RIs call for the inclusion of a dedicated topic focused on the impact assessment of RIs. The benefits of impact assessment are evident: it aids in the strategic planning of an RI by informing internal resource allocation and driving continuous improvement, ensuring services are aligned with the needs of users and other stakeholders. Furthermore, impact assessment fosters accountability and transparency, thereby providing legitimacy, visibility, and value to RIs. This can be particularly valuable to the Member States and the European Commission. By prioritising impact assessment, and dedicated cluster funding for LS-RIs, FP10 can furthermore ensure that investments in RIs are strategically aligned with broader policy goals and inform decision-making.

2. *Leveraging the emergent synergies of INFRA-SERV projects and continue TNA budget*

Synergies generated by INFRA-SERV projects, such as canSERV, ISIDORe, AgroSERV, AquaSERV and MICROBES4CLIMATE, must be used strategically to optimise the use of resources and advance collaborative research sustainably. These initiatives, which already serve as vital platforms for transnational access (TNA) to cutting-edge research facilities, should see their budgets not only maintained but further expanded. Sustained and increased investment in TNA and INFRA-SERV projects will foster cross-disciplinary collaboration, enhance data sharing, and accelerate scientific breakthroughs. By building on these established synergies, the LS-RIs can more effectively address complex challenges, driving innovation and ensuring Europe's leadership in life science research. In particular, a return to open TNA calls that allow broader research support would be welcome. Also, mechanisms that allow for TNA funding to be centralised in the RIs rather than individual TNA budgets for each partner, would contribute to the efficiency of such funding.

Conclusion

In conclusion, FP10 should acknowledge the importance of European Life Science Research Infrastructures by treating them as vital resources. In the next Framework Programme, adequate funding must be provided to drive collaborative research to benefit the life science community and hence further structure the European Research Area. In this context, the existing Research Infrastructures should be considered as strategic assets and thus must be strengthened further. A long-term, supportive, and inclusive approach is essential for the sustained growth and impact of LS-RIs over the next decade. Furthermore, calls for cluster funding, as well as for the assessment of RIs' impact will be crucial to guarantee the maximum return on the very significant investment that has already been made in the LS-RIs. To optimise resource utilisation and sustainably advance collaborative research, the synergies created by INFRA-SERV projects should be leveraged and their TNA budgets continued. Finally, LS-RIs are crucial to the ambitions of the European scientific community. They continue to drive scientific excellence and innovation, and help Europe achieve its goals of sustained scientific, social, and economic progress in the long term.