European Strategy
for
Research and Technology Infrastructures

European Commission | Call for Evidence

May 2025

As Europe navigates an increasingly complex global landscape, the role of research infrastructures (RIs) has never been more critical. These infrastructures are foundational to Europe's continued competitiveness, scientific excellence and ability to address major global challenges in areas such as health, environment, energy or artificial intelligence. **EIROforum** represents **Europe's world-class infrastructures and largest intergovernmental research organisations**, whose members have been at the forefront of advancing science, technology and innovation **for decades**.

RIs play a central role in advancing frontier science, fostering cross-border collaboration and mobility, and help build the technological and human capital that underpin Europe's prosperity. They provide essential services, technologies and facilities that empower both researchers and industry, ensuring that Europe remains at the cutting edge of innovation. Moving forward, Europe must prioritise a strategy that sustains and enhances these infrastructures, reinforcing their unique position in fostering Europe's long-term resilience and leadership.

Large-scale and world class RIs are indispensable assets for Europe. They provide access to state-of-the-art facilities, advanced technologies and vast data ecosystems that are essential for tackling complex scientific and technological challenges in particle and nuclear physics, molecular biology, advanced materials, space exploration or nuclear fusion.

Their impact extends beyond scientific research. RIs are also key to fostering innovation. Through close partnerships with industry across all technology readiness levels, world class RIs help translate scientific discoveries into practical technologies that benefit society and the economy. These collaborations support the rapid translation of research into industrial products, securing Europe's technological sovereignty and its capacity to lead.

EIROforum's RIs constitute complex ecosystems that enable and support both scientific and technological delivery. Thus, they often exhibit the features of both RIs and Technology Infrastructure (TIs). These RIs seamlessly integrate specialised expertise to meet the demands of frontier research with access to unique facilities and laboratories that leverage state-of-the-art capabilities. They collaborate with industry across the full technology readiness spectrum, from early-stage research to proprietary developments, providing services for industry-critical research and development, and reinforcing their role as key enablers of knowledge valorisation.

For Europe to remain a world leader in science, technology, and innovation, the Strategy for RIs and TIs must focus on several key priorities:

1. **Invest in the Full Lifecycle of Research Infrastructures**

Adequate and sustained **funding for RIs within the upcoming multi-annual financial framework** is crucial to maintaining Europe's leadership in research and technology. With the right investment and a significantly increased ring-fenced budget for FP10 - preferentially as a stand-alone programme - large research-performing infrastructures will drive next generation frontier science, enable transformative technological innovation, and secure Europe's long-term global competitiveness.

Investment should encompass **the full lifecycle of infrastructures, including transnational access,** so that they can continue to meet the evolving needs of Europe's scientific community and industrial sectors.

2. **Support Data Infrastructures**

RIs play a critical role in **generating, curating, archiving and sustaining vast datasets,** which are fundamental for the research efforts of both academic and industrial users across Europe. These resources are also essential for the successful uptake and application of Artificial Intelligence (AI) in Science. AI models require computing resources, properly curated data and well-trained domain experts in order to succeed, all of which large-scale RIs provide.

Unlocking the full potential of the digital and AI-driven transformation for European science will depend on **access to FAIR and high-quality data at scale**, often hosted by European RIs. However, the **long-term sustainability of many of these data resources is uncertain**, posing a potential obstacle to Europe's resilience and the widespread adoption of AI across domains.

3. **Empower Talent and Future Infrastructure Leaders**

RIs contribute significantly to the training and career development of the next generation of researchers, science managers, engineers and technicians, extending beyond the realm of academia. As sources and custodians of data, they are also training **tomorrow's data science workforce**.

The Strategy should prioritise the continuous training and education of **interdisciplinary cohorts of future leaders** in the realm of new research disciplines, breakthrough technologies and their applications, both within RIs scientific domains and across sectors. This would be a unique opportunity for early career scientists, engineers and innovators, which is not currently offered by other EU Programmes.

4. **Sustain Technology Development within Research Infrastructures**

World-class RIs, such as the EIROforum members, have a **long history of technology development** and already serve as incubators for novel technologies. They support early-stage technology development that is critical for fundamental research and industrial applications. However, there is a significant gap in funding for early stage technology development under current European strategies, **which prevents Europe from fully capitalising on the existing infrastructures ecosystem**.

The Strategy should allow for the introduction of new instruments that capture the essence of long-term frontier research and innovation inherent to large scientific collaborations. These new policy instruments should be both roadmap-based and programme-based, and provide long-term funding with periodic reviews to span periods of five to ten years, with the objective of **implementing technology roadmaps of large RI communities, in partnership with industry**.

5. **Support the Establishment and Long-Term Operation of RI-driven Technology Infrastructures (RTIs)**

To strengthen Europe's innovation ecosystem and competitiveness, the Strategy should support the **establishment and sustainable operation of integrated and distributed RTIs** that build on the unique capabilities of large-scale RIs. These infrastructures serve as a bridge between frontier research and industrial innovation, leveraging RI expertise, facilities, and services to support advanced product development and technology validation.

Integrated RTIs, embedded within existing RIs, require dedicated support to expand user access and testing capacity while preserving their core research missions. Distributed RTIs, hosted by partner organisations, need coordinated investment to establish remote centres aligned with shared scientific and technological priorities.

Special attention should be given to **guaranteeing that SMEs can access and benefit from RTIs,** through targeted support mechanisms such as thematic platforms, guided access schemes, and fast-track channels tailored to business-critical, high-value innovation needs.