

ESFRI Paper

Concept Paper on ERICs

January 2026

Prepared by:
ESFRI Reflection Group on ERICs

Table of Contents

Executive summary	3
Background	4
Recommendations	5
1. Improvement of the integration of different ERIC elements	5
Personnel.....	5
National nodes	6
2. Improvement of the ERIC relationship with different stakeholders	6
Relationship between ERICs and EDICs/TIs.....	6
Public and private stakeholder Collaboration.....	8
International collaboration in ERICs (legal framework).....	9
3. Sustainability	10
Conclusion	10
Contributors.....	11

Executive summary

The European Research Infrastructure Consortium (ERIC) legal framework, adopted in 2009, facilitates the establishment and operation of multinational pan-European Research Infrastructures (RIs). Since 2009, the ERIC framework has been successfully adopted by many RIs. Nonetheless, there are some challenges that may prevent the ERIC legal framework to reach its full potential. The European Strategy Forum on Research Infrastructures (ESFRI) has convened an "ad-hoc" ESFRI Reflection Group (RG) to review and propose enhancements to the ERIC framework, with the aim of addressing these challenges. This report focuses on strategic (long-term, including those requiring significant legal alterations) and operational (more feasible without any/or extensive legislative changes) recommendations, developed by the RG. The report and its recommendations are addressed to the MS/AC, the EC, and the ERICs. Implementation of the proposed measures, as appropriate, will rest with the competent stakeholders according to their respective mandates.

The RG proposes recommendations in three primary areas:

- **Integration of ERIC Elements:** Focusing on personnel mobility, national node integration, and legal harmonization to support ERICs' operational effectiveness.
- **Relationships with stakeholders:** Tighter coordination with private and non-academic public stakeholders and academia, emphasizing synergy with emerging entities like European Digital Infrastructure Consortia (EDICs) and Technology Infrastructures (TIs), and enhancing international collaboration.
- **Ensuring sustainability of ERICs:** Prioritization of financial sustainability to guarantee long-term planning, (technology) upgrades, and strategic expansion of ERICs.

Background

ERIC is a legal instrument, launched by the EU in 2009, that facilitates the establishment and operation of Research Infrastructures (RIs) carrying out research programmes and projects of European interest. The ERIC framework provides RIs with a legal personality recognized in all EU countries and enjoys the benefits of international organisations, such as exemptions from value-added tax (VAT) and excise duty. Each ERIC is a multinational pan-European RI composed by at least three Member States (MS) or associated countries (AC). At the time of the publication of this report, there are 32 ERICs in operation¹.

In addition to ERICs, multinational pan-European RIs can be set up as intergovernmental organisations (e.g. CERN, ESO or EMBL) or limited liability companies established under national law (e.g. “*Société Civile*” - subject to French law, “*GmbH*” subject to German law or “*AISBL*” subject to Belgian law).

The creation of ERICs is articulated through an EU regulation. This presents advantages since regulations have general application, are binding in their entirety and are applied immediately as the norm in all MS/AC, without needing to be transposed into national law, simplifying the creation of ERICs. The Council Regulation (EC) No 723/2009 of 25 June 2009², amended in 2013³, provides the legal framework for ERICs.

Since the conception of the ERIC framework, the EC and the MS/AC have set up mechanisms to identify and address difficulties in its practical implementation. For example, the EC has forwarded periodic reports (2014, 2018 and 2023) to the European Parliament and the Council on the ERIC application, with proposals for amendments. Additionally, the EC created an external expert group with the mandate to address questions and considerations related to the implementation of the ERIC Regulation⁴. Furthermore, on 2023 the MS and the EC issued a call for action, the Tenerife Declaration on Global Dimension and Sustainability of RIs⁵, urging to address challenges on the application of the ERIC Regulation, notably to improve long-term access to funding frameworks, strengthen access programmes, facilitate engagement with international partners, and optimize staff career perspectives and operational synergies among RIs.

Despite these reports and call for actions, the ERIC ecosystem still faces difficulties, some of them persistent since its inception, that hinder a more seamless implementation and operation of the ERIC framework.

ESFRI, through this Reflection Group, presents here a set of strategic and operational recommendations specifically made to improve the performance and operation of ERICs. Therefore, and even though some of the recommendations may be applicable to other types of RIs besides ERICs, references to RIs in this text should be understood as having a particular emphasis on ERICs.

¹https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-infrastructures/eric/eric-landscape_en

² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009R0723>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1464858864496&uri=CELEX%3A32013R1261>

⁴ <https://op.europa.eu/en/publication-detail/-/publication/cdbe5c78-353b-11ec-bd8e-01aa75ed71a1/language-en>

⁵ <https://eosc.eu/wp-content/uploads/2023/11/Tenerife-Declaration.pdf>

Recommendations

1. Improvement of the integration of different ERIC elements

Personnel

ERICs require a critical mass of talented and specialized personnel in research, technical and management positions throughout their lifecycle. It is crucial that ERICs can attract and retain these necessary personnel. Importantly, the needs of personnel evolve as RIs progress throughout their life cycle —design, operation, and termination—each requiring distinct expertise. However, the necessary turnover of personnel is hindered by inadequate mobility mechanisms for RI staff. Additionally, even though most ERICs employ their personnel directly through core budgets or projects, some ERICs (particularly the distributed ones) have very few or no staff hired by the ERIC itself. In these cases, personnel is primarily hired by the national nodes sometimes through research projects. *To ensure that* ERICs truly function as a joint European endeavour, we propose the following recommendations.

▪ Strategic recommendations

- Mobility of RI personnel should be actively facilitated, in line with the expansion of the “fifth freedom” in Research, Innovation, and Education proposed in the Letta report⁶.
 - Mobility across institutions should not be limited to mobility between ERICs. A push should be made to facilitate mobility across ERICs, other RIs (including EDICs and TIs), universities, and ministries in different MS/AC.
 - Cross-country mobility should also be facilitated. Actions in this direction could be:
 - Implement a regulation that facilitates cross border employment.
 - Implement a common contractual framework for ERIC personnel.
 - Promote the implementation of pension systems to allow mobility for RI personnel.
 - Implement a «Research Visa» to bolster personnel mobility in the RI ecosystem where needed.
 - To ensure the stability of ERICs a number of actions are needed:
 - The core budget for the management and operations of the ERICs should be covered by MS contributions, who are the members of each ERIC.
 - Personnel stability across the ERIC and maintenance of a “historical” memory of the functioning and operation of the RI should be ensured with long-term/permanent positions.
- The upcoming ERA Act presents an opportunity to discuss potential changes. However, it’s important to minimize that rules applying to ERICs are spread across different regulations.

▪ Operational recommendations

- Recognize and take into account for career development purposes (high calibre/in demand qualification), the time expended, work merits, and expertise achieved in RIs posts in all capacities (research, technical, and management). E.g. funding agencies should consider additional metrics, besides publications, to qualify for funding.
- Showcase successful examples of bilateral agreements that have fostered the mobility of RIs personnel.
- RIs should be a crosscutting issue in future ERA Policy Agenda Actions, for example, being also mentioned in “Research Careers” and “Research Assessment”.

⁶ <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>

- Set up a fluid communication with the relevant national authorities, with the help of the EC and the ERIC Committee, to facilitate the hiring of qualified non-EU personnel, in particular, for the obtaining of visas.

National nodes

Distributed RIs typically consists of national nodes that operate in different MS/AC each governed by their respective national laws. For example, national nodes and national in-kind contributions are currently subject to the national law where the node happens to be (e.g. VAT). To enhance the efficiency and coherence of distributed RIs, a more comprehensive and integrated approach to managing national nodes should be pursued. National Nodes must be widely recognized not merely as isolated national entities but as integral components of a unified European Research Infrastructure. While the European Commission can support and promote the implementation of relevant recommendations at the EU level, it is essential that Member States and Associated Countries also actively engage and commit to adopting these measures to ensure consistent and effective integration.

▪ Strategic recommendations

- Implement a VAT exemption for every ERIC at the level of the MS/AC members to include in-kind contributions, executed in different sites of the MS that participate in the ERIC.
- Mobilize funds at national level (e.g. from more than one ministry) to support ERICs potential to drive innovation and business inventiveness to tackle societal challenges.

▪ Operational recommendations

- Increase the visibility of the national nodes of ERICs, which are often not well-identified even within the organisations that host them, as RPO or Universities.
- Promote further collaborations and avoid competition between the national node and other national infrastructures, as well as within the same ERIC.
- Ministries and mandated organizations should coordinate to ensure the financial, long-term sustainability of the national nodes.

2. Improvement of the ERIC relationship with different stakeholders

RIs cover a wide continuum of services (basic and applied research, technology development, digital services...) and serve different stakeholders (academia, research facilities, industry, public administrations and agencies). This continuum has no clear boundaries and RIs services usually fall into several of the aforementioned categories. Therefore, adopting a one ecosystem approach is essential to effectively manage this heterogeneity, ensuring all stakeholders are aligned and closely coordinated as integral cogs of the ecosystem machinery. At the same time, emerging challenges related to the consolidation of the RI landscape—through rationalization, optimization, and increased efficiency—must be addressed to better serve the needs of users.

Relationship between ERICs and EDICs/TIs

New actors in the RI stage have emerged in recent times. Namely, European Digital Infrastructure Consortia (EDICs) and Technology infrastructures (TIs). Briefly, EDICs are a new implementation mechanism for multi-country projects, first introduced as a legal instrument by Decision (EU) 2022/2481⁷. EDICs have been inspired by the provisions on ERICs, but differ from them in terms of some important characteristics (for

⁷ <https://eur-lex.europa.eu/eli/dec/2022/2481/oj>

more information see⁸) and in terms of focus (EDICs aim to contribute to the objectives of the Digital Decade Policy Programme (DDPP)). To date, there are three (3) EDICs already set up, namely Alliance for Language Technologies European Digital Infrastructure Consortium (ALT-EDIC), Local Digital Twins towards the CitiVERSE (LDT CitiVERSE EDIC), and European Blockchain Partnership and European Blockchain Service Infrastructure (EUROPEUM-EDIC), with more in the pipeline.

TIs are defined as facilities, equipment, capabilities, and resources required to develop, test, upscale, and validate technology. They can be public, semi-public, or privately owned, physical or digital. They provide a wide range of capacities and services from pre-competitive applied research services, through demonstration and validation of technology, up to small-scale production. TIs are therefore used, typically, either for technology and industrial development activities at intermediate TRLs and/or for testing and demonstration activities at higher TRLs, or for both. They can also provide non-technological services such as business development and human resources support, including training and skills development in new technologies⁹.

ERICs, EDICs, and Technology Infrastructures (TIs), despite being established through different legal frameworks, operate within a shared ecosystem that serves common users and stakeholders. When considering various dimensions—such as types of users, access modes, intended purposes, and the range of services offered—it becomes evident that these infrastructures exhibit significant overlap while with varying degrees of emphasis. Particularly eloquent in this regard is the recent publication of an Expert Group on TIs - *Towards a European policy for technology infrastructures – Building bridges to competitiveness* (see Figure 1, pages 17-18)⁹.

As previously discussed, it is essential to maintain a cohesive ecosystem through strong coordination across all levels of governance and communication among the various types of infrastructures—including ERICs, EDICs, TIs, existing digital infrastructures, and the European Open Science Cloud (EOSC). Such coordination is crucial to ensure comprehensive coverage across the entire research and innovation spectrum, while avoiding duplication of efforts and unnecessary competition. Equally important is the alignment on cross-cutting aspects such as data management, data sharing, and interoperability.

▪ Strategic recommendations

- Facilitate collaboration among infrastructures at all levels, not only by bridging services but also by promoting joint and coordinated governance models.
 - Avoid duplication of efforts between EDICs, ERICs, and TIs by clearly delineating roles and identifying new opportunities where the focused services of EDICs and TIs offer distinct added value.
 - Build synergies with EDICs and TIs, key enablers for sustainability; and place particular emphasis on advancing social innovation through collaborative initiatives.
- Consider Science/Knowledge Infrastructures as a “continuum” within the same ecosystem, where Research, Digital, and Technology Infrastructures operate within a single, integrated ecosystem rather than in isolation.
- Leverage the strategic and policy-making experience of ESFRI, which has proven efficient in facilitating multilateral initiatives that enhance the use, coordination, and development of research infrastructures at both European and international levels.

▪ Operational recommendations

⁸ <https://digital-strategy.ec.europa.eu/en/policies/edic>

⁹ <https://op.europa.eu/en/publication-detail/-/publication/ebbad86c-ea87-11ef-b5e9-01aa75ed71a1/language-en>

- Showcase the role of ERICs as key drivers of knowledge and innovation, acting as catalysts in the incubation and development of EDICs and TIs. Emphasize the common features shared across RIs—such as user communities, data repositories, resources, and funding bodies—and illustrate how the dynamic interplay between ERICs, EDICs, and TIs can significantly reinforce the broader ecosystem of European infrastructures
- Establish a dedicated task force to examine the evolution tree of infrastructures, with the objective of identifying key strengths, challenges, and gaps and provide targeted recommendations to guide the strategic development, alignment, and long-term sustainability of ERICs, EDICs, TIs, and other related infrastructures.
- EDICs, ERICs, and other RIs, as well as TIs, should strive for improved coordination at all levels of governance:
 - A dedicated task force or working group should be established within the EC —bringing together DG RTD and DG CONNECT— to ensure effective coordination among the various instruments. This body would play a key role in aligning policies, funding mechanisms, and strategic priorities across Research, Digital, and Technology Infrastructures, promoting a more integrated and efficient ecosystem
 - Member States (MS) and Associated Countries (AC), represented in the governance of ERICs, EDICs, and other infrastructures, should adopt a coordinated national approach with coherent positions across entities. In cases where ERICs and EDICs fall under different ministries, this should not be seen as a barrier but rather as an opportunity to broaden governmental engagement, support, and awareness across diverse policy areas, ultimately strengthening national commitment to European infrastructure initiatives
 - The capacity of research organisations must be carefully considered and supported. Regardless of which ministry oversees each type of infrastructure, the same research organisations often participate in ERICs, EDICs, and TIs at the national level. This overlap can lead to a risk of overburdening institutions, which may face significant challenges in managing the administrative and bureaucratic demands of engaging in multiple infrastructures with distinct governance models and formal requirements.

Public and private stakeholder Collaboration

RIs have the potential to collaborate with a wide range of stakeholders and given the diversity of RIs this collaboration takes multiple forms in all scientific domains of RIs (e.g. industry, hospitals, public agencies). For example, Industry partner with RIs as users, collaborators or component providers¹⁰. This collaboration results in access, to the society as a whole, to cutting-edge technologies for solving challenges at a local and global level. Furthermore, Council Conclusions on Research Infrastructures¹¹ underlined the benefits and impacts of public investments in RIs on industries, small and medium-sized enterprises (SMEs) and other stakeholders through activities such as proprietary access to RIs, contractual research, joint R&I activities, training and industrial supply of top-class products and services to RIs. The Council also stresses the importance of further developing RI capacities and services tailored to private sector needs to strengthen European competitiveness.

In light of this, fostering and enhancing collaboration between RIs and industry is essential.

▪ Strategic recommendations

- Consider options to allow participation of private entities in ERICs and open the discussion of increasing engagement in economic activities for ERICs as for EDICs. EC could work together with

¹⁰ <https://www.esfri.eu/Survey-Report-Cooperation-ESFRI-Landmarks-Industry>

¹¹ <https://data.consilium.europa.eu/doc/document/ST-15429-2022-INIT/en/pdf>

the ERIC Forum to find a common framework valid for all ERICs, to avoid leaving the decision to the Council of each individual ERIC.

- Additionally, an exchange of experience between the services of the European Commission regarding the development and performance of both ERICs and EDICs should be encouraged. However, any differentiation based on the legal form of the entity should be avoided.

▪ **Operational recommendations**

- Promote the creation of an “Stakeholder board” in RIs with a dedicated stakeholder contact officer to support continuous engagement with private and non-academic public stakeholders, organize joint events, increase visibility of the RI for the support of non-academic and commercial users of RI services; this task may also be partially “outsourced” to or co-created with TIs, building a strategic cooperation. E.g. benefit from existing experiences and study best practices and user cases of successfully implemented Industry Boards.
- Closely follow the evolution of TIs and, if successful, benefit from their know-how and resources on regulations and IPR management, acting as one-stop shop for businesses, SMEs, etc...
- Build on the interconnections that have been identified between RIs and non-academic stakeholders (Reference report on TIs, Figure 1)⁹.
- Foster the interchange of staff between ERICs and the industry, giving incentives for mobility to allow for harmonisation of good practices and building of a mutual culture.
- Create a “Proud ERIC collaborator” seal or award, which other stakeholders can use to increase visibility as a corporate social and innovation responsibility action, and other advantages.
- Use Key Performance Indicators (tailored to ERICs where appropriate) to track stakeholder collaboration.

International collaboration in ERICs (legal framework)

Participation of International Organizations (IOs) and third countries in ERICs remains a challenge, particularly regarding founding membership. In the case of ERICs the Court of Justice of the EU has jurisdiction over disputes among the members concerning the ERIC. This mandatory jurisdiction may discourage IOs from joining ERICs; however, the jurisdiction of the Court of Justice of the EU is mandatory for a European legal form.

▪ **Strategic recommendations**

- Analyse procedures to allow IOs and third countries to become founding members of ERICs. This should however not affect the minimum number of members necessary (at least one MS and two other countries, which are either MS or AC).
- Regarding the legal jurisdiction of the Court of Justice of the EU explore additional legal instruments that are acceptable to third countries, IOs, MS/AC and the EU.
- Seek legal advice to facilitate stronger cooperation with third countries and IOs as well as with the private sector and other Infrastructures (MoUs, contracts, etc.).

▪ **Operational recommendations**

- Foster collaboration between ERICs and ESFRI by establishing a Task Force comprising members from the European Commission (EC), ESFRI, EIRO Forum, ERIC Forum, Joint Research Centre (JRC), and Member States/Associated Countries (MS/AC), with the latter participating on a rotating basis. For example, explore organizing joint meetings every six months between the Executive Boards of ESFRI, the ERIC Forum, and the EIRO Forum.

3. Sustainability

Sustainability of RIs encompasses a range of critical elements that ensure the long-term viability and impact of ERICs. This report focuses on financial sustainability that enables long-term planning, technological upgrades, and strategic decision-making. Financial stability supports efforts such as expanding user communities, enhancing capabilities or collaborating with other scientific domains (e.g. interoperability of data).

▪ Strategic recommendations

- MS should be encouraged to provide rolling commitments for ERICs, allowing for longer-term strategic planning and strengthening the sustainability of the ERICs.
- Incentives should be used for Expansion and Integration specifically to:
 - Expand existing ERICs to include new, related RI initiatives.
 - Facilitate mergers between ERICs with overlapping or complementary scopes.
 - Promote synergies through initiatives such as a dedicated *INFRA-INTEGRATE* call.
- Leverage ESFRI expertise and strategic insight to guide policy and funding interventions that align with research and innovation priorities.
- Ensure collaboration and complementarity with EDICs and TIs and the rest of the ecosystem when strategically planning towards the optimization and sustainability of the infrastructures landscape, in consultation with EC, JRC, ESFRI, EIRO Forum.
- European-Level Financial Instruments:
 - Create opportunities and new financial mechanisms based on long-term strategic planning, assessing both potential risks and benefits.
 - Explore the establishment of a dedicated EU co-funding instrument, possibly within the Competitiveness or Cohesion Funds.
- Reaffirming the need for implementation, at the national level and in the national legislation, to allow ERICs to be eligible for funding in national programmes, directly or through their nodes. Importantly, this strategic recommendation has also an obvious operational dimension.
- Cross-Programme Synergies
 - Foster alignment and synergies between national and European programmes
 - Advocate for the explicit inclusion of RIs in EC programmes beyond the RTD domain (Regio, Connect, Green Transition, Security/Defence) to broaden their funding base and impact.
 - Raise awareness across national ministries beyond research, to mobilize resources and facilitate broader support for ERICs.

▪ Operational recommendations

- Standardization of financial information and codification of costs across national nodes and ERICs.
- Whenever new ERICs are being set up, the procedures (in the MS and the EC) should be streamlined without compromising the rigorousness of the evaluation. The current extended timeline decreases the attractiveness of becoming an ERIC.

Conclusion

For ERICs to fulfil their role as key pillars of the European Research Area (ERA), it is essential to combine a long-term strategic vision with concrete operational improvements. These recommendations aim to build a more integrated, agile, and financially sustainable research infrastructure landscape across Europe.

Contributors

This report has been prepared by an ESFRI Reflection Group on ERICs composed by ESFRI delegates.

Members of the Reflection Group (RG)

José Luis Martínez, ESFRI Chair

Evangelia Chrysina, EL ESFRI delegate

Francisco Colomer, ES ESFRI delegate

Claire Devereux, UK ESFRI delegate

Support: Fotis Karayannis, Javier Menéndez (StR-ESFRI3 project)