TERMS OF REFERENCE FOR THE ECRIN-ERIC EVALUATION

26 October 23, 2018

Executive summary

A comprehensive set of terms of references is developed for the ex-post evaluation of European Research Infrastructure Consortium (ERIC).

The proposed evaluation relies on a peer review performed by an expert committee. The ERIC will first produce a self-assessment document which serves as a reference information for the committee. Then an on-site visit will provide the committee with the possibility of independent in-depth clarifications and interviews with the ERIC staff, users, stakeholders and partners.

A set of 14 standards, grouped in three domains, have been developed to guide the preparation of the self-assessment of the ERIC and the additional work of the expert committee (visit and report production).

Each standard will be examined according to a range of three criteria. Rather than using quantitative KPIs, the overall ERIC performance will be assessed against an indicative map of achievement results. Doing so, the concluding remarks and recommendations of the review panel are cognitive rather than quantitative, and are summarized in a SWOT analysis.

In addition to the three criteria (research quality, impact and relevance to society, management efficiency), the evaluation will possibly consider other aspects such as research integrity/ethics and capacity building/interaction with higher education.

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1. Introduction

1-1. Context

ERIC status is a legal form, created by a EC regulation in 2009 (EC 723/2009) for the establishment of an European Research Infrastructure Consortium[1].

Following the successive versions of the ESFRI Research Infrastructure roadmap, 19 ERIC were created at the present date, covering all disciplinary fields.

Among them, ECRIN (European Clinical Research Infrastructure Network) gained the ERIC statutes on 29 November 2013[2].

In its statutes, the ECRIN-ERIC activities are monitored by an annual activity report, approved by its Assembly of Members. In addition, the section 2 of article 10, states that:

> *2. ECRIN-ERIC shall undergo every five years a scientific review performed by international experts appointed by the Assembly of Members, providing guidance and recommendations on the ECRIN-ERIC development strategy.*

According to this article, the ECRIN management consulted Hcéres, to inquire about the possibilities to have this scientific evaluation organized by public evaluation agencies.

Answering that request, Hcéres invited several agencies, in charge of scientific evaluations in their respective country, to join for a shared action.

Two countries answered positively (Italy, Spain) and the present text aims to provide a consistent set of terms of reference to frame the assessment of ECRIN-ERIC.

This first text may eventually be considered as a basic framework for joint assessment of other ERICs, if needed.

1-2. Objectives and methodological principles of ERIC evaluation

Like for many other publicly-funded research bodies and projects, the evaluation aims to highlight three distinct objectives and success criteria of the ERIC:

> 1- **Quality of services provided to support research and excellence,**
> 2- **Impact and relevance for society,**
> 3- **Sustainability and management efficiency.**

To achieve these objectives, a number of domains (3) and standards (14) are used, to get an in-depth understanding of the ERIC performance. However, the overall assessment will not be based on quantitative indicators, but rather on the cognitive understanding by the panel members, who will conclude with a SWOT analysis, highlighting also the strategy of the ERIC.

The external evaluation refers the overall governance of an entity and all its activities in accordance with its statutes and missions by an independent expert committee. The aim is therefore to assess the capacity of the ERIC to develop its strategy, to implement it by means of a suitable organization, to master tools for steering and monitoring its activities and to correct its strategy if necessary.

The external evaluation is relative to the most recent operation period of the ERIC (*ex-post* evaluation). This period will be considered by the expert committee as the reference period for its analysis. The external evaluation respects the strategy decisions taken by the ERIC, or more likely by its Assembly of Members. It focuses on analyzing the trajectory followed by the ERIC during the reference period, and especially the implementation of development policies for activities and the associated cycles of continuous improvement, with regard to the overall strategy trajectory. It leads to the identification of the ERIC's strengths and weaknesses by the expert committee and to the formulation of non-prescriptive recommendations.

These standards for the external evaluation are the key methodological components. These aim at providing an in-depth understanding of the ERIC activities, while guaranteeing transparency, impartiality and equity. This document defines the scope of institutional evaluation, the main expectations associated with the ERIC's strategy and the criteria used to assess the level and quality of compliance with these expectations.

1-3. Standards for external evaluation ERIC

There are 14 standards, grouped into 3 main domains:
- Positioning and strategy,
- Governance and management,
- Activities.

The first domain includes both institutional dimensions - the positioning and the associated strategy, with the objective of clearly identifying the development trajectory followed by the ERIC during the period under review, in the national and international landscape of research infrastructures, as well as its future evolution for the next period. The trajectory is planned by the ERIC based on an analysis of roles played by its partners and by the other stakeholders in its community.

The second domain is related to the ERIC's internal structure and governance for development and achievement of the strategy, and the management tools used for operational implementation of the strategy.

The internal structure corresponds to the organizational decisions made by the ERIC to carry out its missions and implement its strategy.

The governance includes all the measures, rules, authorities and decision-making processes to support the development and implementation of the ERIC's strategy. The ERIC's governance ensures good coordination between political and administrative organization and it is supported by a quality policy.

The management is supported by methods and tools used by the ERIC for the operational implementation of its strategy. This includes the information system used to monitor activities and to support management, the multi-year use of resources and skills to support the strategy in all fields of activity.

The third domain is devoted to the ERIC activities. It identifies the complete service portfolio of the ERIC in the European research infrastructure framework. It aims at demonstrating a complete description of the monitoring of the ERIC's activities and the analysis of their results for all the missions, in terms of quality, efficiency and impact as well.

2. Evaluation content

2-1. Positioning and strategy of the ERIC

Standard 1: the ERIC presents its positioning and its operation model in light of its missions in the European landscape of research and innovation.
- In the framework defined by its members, the ERIC has a clear vision of its missions and commitments to the member states and the society.
- The ERIC has an appropriate organisational model, according to its role (operator, funding agency, mixed model, other) and the activities that it carries out (research, transfer, expertise, support to public and private research, support to public policies, etc.).
- The ERIC bases the definition of its positioning on a shared analysis, in particular by drawing on comparisons with international situation.
- The ERIC's positioning is consistent with its missions; it is comprehensible and clearly linked to the European strategy for research infrastructures.
- The ERIC's positioning accounts for the thematic cluster strategy, in the context of ESFRI at the European level, and the corresponding national strategies of its members.
- The ERIC is aware of the global context of its activities, especially regarding the European open science policy and relationship with the private sector.

Standard 2: the ERIC has an institutional strategy in relation to its missions and skills in the European landscape of research infrastructures and innovation.
- The ERIC defines its strategic areas of activity using scientific prospective work and identification of its strengths and weaknesses.
- The strategy is formally written down and comprehensible for the period of reference, in particular with regard to the ERIC members (multi-year agreements, engagement letters, etc.).
- The objectives, projects and actions defined in the strategy are explained as well as the expected results.

- The strategy of the ERIC is consistent with its positioning; it is linked to the European research strategy and major projects of European or international interest.
- The strategy defined by the ERIC accounts for the inherent risks in scientific research and possible competition with the private sector.
- The strategy defined by the ERIC accounts for the issues of social responsibility, particularly ethics, gender equality and sustainable development in environmental management.
- Sources of funding and their development are based on a clearly defined business model.
- The future strategic policies are defined for the coming period and consistent with all missions.

Standard 3: the ERIC has a strategy of alliances and partnerships on a local, national and international level.

- ERIC has an extensive knowledge of its user community at large. The user community is aware of and knows ERIC activities and service offers.
- Alliances and national and international partnerships contribute to the ERIC's strategy in an effective and consistent way.
- Actions by the ERIC are aligned with those of other stakeholders, especially in the framework of the European Research Area.
- The ERIC articulates its strategy in compliance with the objectives and the organization of the thematic clusters of the ESFRI roadmap.

2-2. Governance and management

Standard 4: the ERIC defines a functional and geographical organization for the implementation of its activities in support of its missions and strategy.

- The distributed nature of the ERIC accounts for the geographical extension of the user base.
- The activities and strategy are suited to the geographical distribution on a European and international level.
- The organization within operational entities is consistent and in line with strategy.
- The support and assistance services are relevant and efficient.

Standard 5: the governance of the ERIC is based on authorities and decision-making processes consistent with the strategy and chosen modes of action

- The governance model and the operation are consistent with the EU regulation for ERIC.
- Governing authorities and players have defined remits and roles; the ERIC's main partners are associated with them.
- Decision-making processes are clearly stated and enable efficient performance of both internal and partnership actions.
- Functioning of governing authorities and governing processes encourage all staff categories to offer feedback and to take part.

- Actions of governing authorities and processes are consistent with the ERIC's commitments in the areas of social responsibility, particularly ethics, gender equality and sustainable development in environmental management.

Standard 6: the ERIC has implemented an overall quality policy which takes into account the monitoring of all activities and results, and the implementation of corrective actions
- The ERIC implements a continuous improvement policy for its activities.
- A quality policy is defined and supported by the management team; it is clearly stated and disclosed to players within the ERIC.
- The ERIC has an information system and tools for monitoring activities and measuring results in a reliable and long-term way. These tools help identify the trajectories taken by the ERIC during the reference period and the management indicators required for governance.
- The ERIC identifies, assesses and controls the risks associated with decision-making processes and activities.
- The quality assurance policy implemented by the ERIC contributes to its commitments to the domains of social responsibility, particularly ethics, gender equality and sustainable development in environmental management.
- The quality assurance policy implemented by the ERIC includes, where appropriate, the follow-up of recommendations of the previous external evaluations.
- The ERIC contributes effectively to the capacity building of research and higher education in Europe.

Standard 7: the ERIC develops a communication policy
- The external communication policy promotes i) the understanding of the ERIC's missions and activities ii) the attraction of new users, iii) the ERIC results.
- The internal communication policy helps staff adhere to the strategy.

Standard 8: the ERIC manages multi-annual implementation of its strategy by using prospective analysis tools
- The ERIC has multi-year prospective analysis of its requirements and resources in line with its strategy.
- The ERIC develops the forward-looking management of jobs and skills in line with its strategy and social balance sheet.
- The business model of reference for the various areas of activity has been defined and is sustainable. It is has been discussed at the GA level and is open to possible new objectives and targets.
- Prospective analysis are carried out with a view to diversifying financial resources.

Standard 9: the ERIC structures its management processes and relies on a suitable set of support and assistance services
- The budget organization of the ERIC and its budgetary arbitration tools are clearly stated and consistent with its activities and its strategy. They rely on an internal dialogue for management.

- The human resources management policy, in particular recruitment and staff training processes, is suited to the ERIC's strategy and activity development policies in the European framework.
- Logistics and property management are organized in an appropriate and efficient manner. The ERIC has a property master plan that is part of its strategy and relevant to its locations, needs and resources.
- The ERIC has an information system to meet its management needs, at both the central level and the distributed entities level.
- The organization and services provided by the support services are consistent with the ERIC's activities and locations.

Standard 10: Data management
- Research data produced by the ERIC are identified and under the responsibility of the ERIC for curation, maintenance and preservation
- Whenever needed, the ERIC is supported in the European e-infrastructures.
- ERIC has a public and transparent policy about the research data access and use.

Standard 11: Intellectual property
- Any service provision agreement concluded with users includes a data management plan including the intellectual property rights.
- The ERIC has an open science policy, unless there is identified need to proceed otherwise.
- For specific issues, joint initiatives of ERIC and users may lead to patents and protected access to data, process or technology.

2-3.   ERIC activities

This area has a generic formulation, independent of the kind of activities carried out by the ERIC (services, resources hosting, research, transfer, expertise, support to public policies, etc.) and its organizational model. The standards in this area therefore need to be considered and applied to any ERIC activity.

Standard 12: Service provision to users:
- One of the ERIC's main role is to provide access to shared facilities and resources.
- ERIC service portfolio is openly available to the research community through appropriate communication channels.
- These accesses to ERIC services can be made on-site or remotely.
- The ERIC follows the European Charter for access to Research Infrastructures for its service portfolio.
- Access may also be provided to internal users in the framework of global cooperation

Standard 13: the ERIC demonstrates its ability to monitor, analyze and qualify the results of its various activities:
- The ERIC has an integrated vision of its activities based on consolidated monitoring of the various actions performed, whatever the methods used.

- Steering tools and the resources used are identified for each activity.
- Tools and resources are used by the ERIC for the internationalization of its activities.
- The ERIC has established reliable long-term indicators..
- The ERIC can quantify the added value of its activities.
- The ERIC develops methods and tools for assessing the impacts of its activities on its social, cultural and economic environment.
- The ERIC has a scientific integrity policy for its staff, including measures to raise awareness, to prevent, to detect and to deal with professional observed misconducts.
- The ERIC has an effective Ethics policy, which may eventually be specific to its activities.

Standard 14: the ERIC controls its development trajectory
- The activities and results are in line with the strategy defined for the reference period.
- The trajectory taken is identified for each activity.
- The ERIC's members have a clear view of the trajectory.
- Any changes in the ERIC's strategy for each activity are subject to regular discussion and political validations.
- Any changes to the trajectory of each activity are clearly stated and scheduled in approved and published strategic documents.

2-4. SWOT analysis and recommendations

This analysis summarizes the various observations made above in a standardized manner (SWOT). Opportunities and threats will rely on the reference period assessment for evaluating the proper alignment of the strategic plan for the next period of the ERIC operation.

The SWOT analysis illustrates the 14 standard survey in the scope of the three objective evaluation criteria, as synthetized in the table below:

Domains	Standard number	Standard	Criteria number
1. Positioning and strategy,	1	Positioning	1
	2	Strategy	1, 2, 3
	3	Partnership	1, 2, 3
2. Governance and management	4	Functional and geographical organization	2,3
	5	Authorities and decision-making processes	2
	6	Quality policy	3
	7	Communication policy	2
	8	Multi-annual implementation of its strategy	3
	9	Management process organization	3
	10	Data management	2,3
	11	Intellectual property	2,3
3. Activities	12	Service provision to users	1,2,3

	13	Ability to define, monitor, analyze and qualify the results	1,2,3
	14	Activity evolution	1,2,3

3. EVALUATION METHODOLOGY

The basic principles of the ERIC assessment are relying on a prior self-assessment by the ERIC, complemented by an on-site visit of the members of a peer-review panel. Then the panel will produce a comprehensive report, assessing the reference period (ex-post evaluation) and complemented by a SWOT analysis including the future trajectory of the ERIC.

3-1. Self-assessment and documentation

The self-assessment report should be no longer than 50 pages, excluding appendices and tables.

It should consist of the following:
- a description of the ERIC's organization, composition and business model;
- a description of the ERIC's strategy;
- a description of the specific targets of the reference period (research, societal relevance and strategic, coherency with the European strategy for research infrastructures) and the targets identified for the period;
- an explanation of which selected performance indicators are most important to the ERIC;
- the results achieved in the domains of research and society in the reference period..

If necessary, it must be explained why the ERIC has not achieved its targets or not achieved them in full.

This self-assessment can be complemented with information related to the human capacity building for higher education, research integrity/ethics and scientific culture dissemination for public at large.

The self-assessment must keep focused on the global objectives[3], to be used as criteria for the assessment and conclude with a SWOT analysis, highlighting the ERIC trajectory during the reference period and the next one.

3-2. Composition of evaluation panel

The ERIEC will assign the evaluation task to one of its member agencies, called the ERIC Evaluation Leader (EEL). During the entire evaluation period, the EEL will be the ERIC corresponding evaluation partner.

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[3] See paragraph 1-2.

As stated in introduction, the ERIC evaluation is based on peer-review. The evaluation panel is chaired by a highly qualified individual, aware of the role of research infrastructures and the corresponding strategy of the European Union. It must be preferably chosen among experts in the scientific field covered by the ERIC.

The expert committee is made of around 6 members, proposed by the EEL, based on their merits and skills in the domain of the ERIC research activities. The final appointment decision for the committee members belongs to the executive board of ERIEC, accounting for proper representation of geographical distribution of ERIC user base and gender equality.

The following competencies are advisable for defining the expert profiles:
- Academic research in the ERIC field of activities,
- International research policy,
- Innovation and research valorization,
- Administrative and financial management,
- Service user representation.

All panel members will be required to demonstrate that they have no link of interest of any kind with the ERIC.

4. Schedule, documentation and deliverables

The ToR are communicated to the ERIC prior to the preparation of the self-assessment report. The ERIC is given a 2 months delay for producing its self-assessment report.

The expert committee composition is proposed to and accepted by the ERIC, in order to prevent the possibility of any kind of conflict of interest.

Prior to the on-site visit, the expert committee receives the ERIC self-assessment report and meets to develop a shared analysis of the ERIC report, to prepare the content and program of the visit and to organize in advance the work distribution among its members for the evaluation report writing according to skills and competencies.

The on-site visit is organized jointly with the ERIC and the expert committee with the support of the EEL. The visit happens not later than 2 months after reception of the self-assessment report and agreement of the expert committee composition.

After the visit, the expert committee is given a 2 months delay to provide the final draft report. This draft version is communicated by the EEL to the ERIC, for receiving its comments or correction requests, not later than 2 weeks. This first feedback of the ERIC is communicated by the EEL to the expert committee, which considers or rejects, for producing the final evaluation report within 3 weeks.

The final report is communicated by the EEL to the ERIC for receiving the final official remarks, not later than 2 weeks, which are going to be annexed to the published report on the Web and transmitted to the ERIC Assembly of Members.

ERIC/ECRIN evaluation – ToR

The overall evaluation process is supported by a 2-3 persons team belonging to the EEL. During the evaluation, contacts between the expert committee and the ERIC are strictly restricted to the time of the on-site visit. The support team, provided by the EEL is in charge of all contacts and information exchanges between the ERIC and the committee, and provides the needed storage space for electronic documentation.

The table below shows a coarse schedule of the overall process.

Date	Activity	Actor
T0	Communication of ToR to ERIC	ERIC Evaluation Leader
T0	Start of self-assessment report preparation	ERIC
T0 + 2 months	Sending of self-assessment report	ERIC
	Start of visit preparation	Expert committee + ERIC Evaluation Leader
T0 + 4 months	On-site visit	Expert committee
T0 + 6 months	Final draft report preparation	Expert committee
	Transmission of final draft report to ERIC	ERIC Evaluation Leader
T0 + 6 months + 2 weeks	Sending of comments on the final draft report to expert committee	ERIC
T0 + 6 months + 5 weeks	Acceptance of reject of comments	Expert committee
	Transmission of final report to ERIC	ERIC Evaluation Leader
T0 + 6 months + 7 weeks	Sending of final observations on final report to the expert committee	ERIC
T0 + 8 months	Transmission of final report to Assembly of Members and publication	ERIC Evaluation Leader