

---CONCEPT NOTE---

Costa Rica, 27 November 2019

This policy workshop on governance with a specific focus on (EU/LAC) internationalisation is part of the three bi-regional policy workshops organised to support the implementation of the RI pillar of the Common Research Area. To support the work of the RI Working Group and to foster the bi-regional debate on RI policy these policy workshops are held back-to-back with the RI WG meetings. During the meetings we will aim at enabling dialogues that can identify complementarities and matchmakings between the RIs in the two regions.

Objectives and expected outcomes

For this policy workshop we have defined the following objectives and outcomes:

- *Objectives:*
 - *Explore and create common understanding on how governance models can support internationalization of RIs: exchange views and lessons learnt on different types of legal frameworks, governing structures, organizational models, competences on management, and scenarios for international collaboration; standardize concepts.*
- *Expected outcomes:*
 - *Identify and share best practices on governance models that support internationalization of RIs;*
 - *Identify effective governance models that can support the EU/LAC bi-regional dimension of RI collaboration.*

Preparation for the Policy Workshop

In order to assure constructive discussions during this workshop and aim for concrete outputs we ask you for some preparatory reflection and inventory and bring this as input to the sessions.

- a) Identify the main features (if possible including strategic stakeholders, best practices and challenges) of legal framework(s) that exist in your country that facilitate the establishment and operation of research infrastructures with international interest. This to identify different models that exist on both continents.
- b) Identify conditions for establishing governance models that can effectively support bi-regional collaboration in RIs. How can synergies among national roadmaps/ RI policies be established? How can internationalization be enhanced effectively through specific governance models? Please take the following questions into account:

<i>Funding mechanisms</i>	How are your national RIs usually funded? Can they fund international scientists or only national scientists?
<i>Organizational structure</i>	How are your RIs usually established? By whom? How open / restrictive / limiting is the establishment act?
<i>Competencies</i>	What competencies do your RIs usually have? (in terms of both powers granted to them and skills available to them)
<i>Internationalization</i>	How aware are your RIs usually of the international dimensions of collaboration?
<i>Legal framework</i>	How do your RIs usually manage IPR?

<i>Tendering/call procedures</i>	Are the calls in your country usually designed to be open? Are they advertised to non-domestic audience?
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Governance models for internationalization of Research Infrastructures

Research Infrastructures- RIs have a great potential developing knowledge and technologies useful for society, industry, and governments. They can promote science diplomacy and support or complement external policies¹. RIs may also represent for States direct and indirect² opportunities of development at the national, regional or local level.

Neither EU nor LAC countries can provide RIs in all fields. Yet, that's why making better use of scarce resources and encouraging integration is desirable. Bearing in mind the costs³ that RIs entail, lasting and stable agreements between nations should back initiatives. They need to comprehend not only international differences and national goals but also to constitute an effective governance scheme. This can be understood as the set of structures, principles, rules, and procedures used to regulate the entities or organisms that would run RIs.⁴ The executive power is part of the management body, that aims to achieve the results defined by the governance⁵. In the light of internationalization of RIs, governance models can be articulated on three parameters: (1) Governance bodies; (2) Legal frameworks; (3) Competences on management (IP, Access provision (user needs), international expertise for evaluation of calls, decision-making, methodologies, funding mechanisms, business innovation).

From a European perspective, RIs' governance bodies are advised to have simplicity, flexibility, transparency, and scientific commitment when making strategic decisions. Moreover, RIs' governance bodies with international partners (States) would require a degree of independence and self-governance that allow the RIs to operate without political burdens. This governance structures are often administratively and financially decentralised.

As a reference, the OECD explained in 2014 that:

“As in the case of all international [research]infrastructures, the participating entities have to reconcile their desire to pursue their national interests and to maintain control over how their contributions are utilized, with the need to give the infrastructure a degree of independence and self-governance that reflects international and scientific diversity. Ultimately, the partners must accept a certain loss of control, in return for collective scientific benefits.”⁶

In Latin America the reference organization in economic development has been ECLAC (Economic Commission for Latin America and the Caribbean) and CELAC as an intergovernmental bloc for dialogue and political consultation. In the following link a work presented on the EURAXESS portal can be found with the theoretical framework that was used by the CELAC Working Group for Research Infrastructures:

¹ European Commission. (2017). Sustainable European Research Infrastructure- A call for action. Page 41 Available at https://ec.europa.eu/info/sites/info/files/research_and_innovation/research_by_area/documents/swd-infrastructures_323-2017.pdf

² Direct opportunities refer to jobs and activities related with the creation, operation and maintenance of the RIs. Indirect can be related with socio-economic impacts non directly linked to scientific objectives such as tourism.

³ European Commission. Research Infrastructures, including e-Infrastructures. (2019) Available at <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/research-infrastructures-including-e-infrastructures>

⁴ OECD (2008) Large Research Infrastructures. Report on Road mapping of Large Research Infrastructures. Pag 27. Available at <http://www.oecd.org/sti/inno/47057832.pdf>

⁵ European Commission. RAMIRI Handbook Index. Chapter 3. 3.2. Available at <https://www.ceric-eric.eu/project/ramiri-handbook/chapter-3/#anchor1>

⁶ OECD. (2014) International Distributed Research Infrastructures: Issues and Options. Pag. 14. Available at <http://www.oecd.org/sti/inno/international-distributed-research-infrastructures.pdf>

<https://euraxess.ec.europa.eu/worldwide/brazil/article-fernando-amestoy-coordinator-celac-research-infrastructure-group>

RIs with international partners would require balanced governance schemes that can operate independently keeping partner's (States) interests as priorities. To do so, partners need to be involved in the formulation and decision of governance structures, ensuring a smooth international cooperation.

A traditional governance scheme for international RIs includes⁷:

- A) Countries as partners
- B) General Assembly
- C) Director (or board of Directors)
- D) Secretariat
- E) Advisors or consultants (Providing advice to General Assembly and Director)
- F) Technical Committee (Supporting the activities of Director /Secretariat from a technical point of view)
- G) Distributed RI: Role of National Nodes and relationship with the hub

Another important governance issue to be considered concerns the definition of voting rights and mechanisms of Member States in the Assembly, including the basis for the calculation of each State's financial contribution to the RI (e.g., GDP, population, etc.).

The ESFRI Implementation Group uses “governance & management” as one of the eight dimensions to assess the implementation of ESFRI proposals, projects and landmarks:

	PHASE				
	DESIGN	PREPARATION*	IMPLEMENTATION	OPERATION	TERMINATION
GOVERNANCE & MANAGEMENT	<ul style="list-style-type: none"> – project organisation approved – scientific leadership and project manager identified 	<ul style="list-style-type: none"> – satisfactory project organisation for preparation and implementation with clearly defined skills, responsibilities and reporting lines approved – measurable and satisfactory Key Performance Indicators identified – governance for operation with clearly defined responsibilities and reporting lines outlined, including Supervisory and other 	<ul style="list-style-type: none"> – legal entity established – organisation for implementation in place – Key Performance Indicators for operation, management, administration and facilitation agreed 	<ul style="list-style-type: none"> – planning and reporting mechanisms in place 	<ul style="list-style-type: none"> – organisation of decommission/merger/upgrade approved
		Advisory Boards (including Ethical Board if appropriate)			

Source: ESFRI (2016). Public Roadmap 2018 Guide.

Legal bases in the European Union and in LAC

Special attention needs to be paid to the legal bases that would allow the creation and possible host of RIs within the member territories. National legal frameworks will give formal strength to RIs as well as they will show the national commitment with the initiative. The OECD added that:

“Typically, proponents will seek a minimum solution – one that permits achieving the scientific goals with the smallest possible legal, administrative and financial complications. However, experience shows that scientists sometimes underestimate the need for an adequate legal foundation: for example, funding agencies may have

⁷ OECD. (2014) International Distributed Research Infrastructures: Issues and Options. Pag. 14. Available at <http://www.oecd.org/sti/inno/international-distributed-research-infrastructures.pdf>

formal requirements regarding the legal standing of entities that submit proposals or are the recipients of grants.”⁸

Looking at the European Union’s scenario the community’s legal framework is the European Research Infrastructure Consortium – ERIC introduced in 2009⁹. It created legal bases to facilitate the establishment and operation of RIs with European interest. ERIC’s principal task is to establish and operate RIs on non-economic bases. It is a legal entity with legal personality and full legal capacity recognized in all EU Member States.¹⁰ Moreover, as in Europe, there are neither established comprehensive access policies to research infrastructures nor national strategies for research infrastructures, most countries take as a reference the ESFRI roadmap to rule their activities.

In absence of international RIs, that allow us to compare the legislative and governing frames, some examples of Regional RIs are CERN¹¹, Astronet and, ESA.¹² These are large scale RIs with different countries as Partners. Their structures are governed by schemes such as the one exposed in which there is a Council, a Direction, and Committees (scientific and financial)¹³. However, governance models may vary depending whether RIs are single-sited, distributed, or virtual.¹⁴

On the other hand, LAC countries need to be analysed independently due to the diverse legislations among them. Uruguay’s legal¹⁵ framework for instance has a legal mechanism that could accommodate global-scale projects under the figure of “Not for Profit International Organisation” such as CLARA (Cooperación Latino Americana de Redes Avanzadas)¹⁶. Overall, LAC countries that have already invested in RIs such as Mexico, Chile, and Brazil need to review and adapt their legislations towards international RIs.

Some challenges that international RIs can face were identified in 2017 by the European Commission. They need to be tackled in order to establish an adequate framework for effective governance and sustainable long-term project¹⁷:

- Difficulties carrying out RIs’ social-economic impact assessments¹⁸ have proven to be a disinformation issue for RI’s managers and decision-makers.
- National budget cycles, validity and timing of National roadmaps.
- National short-term perspective caused by competitive calls of projects are additional issues that RIs Governance schemes need to consider.

⁸ OECD. (2014) International Distributed Research Infrastructures: Issues and Options. Pag. 14. Available at <http://www.oecd.org/sti/inno/international-distributed-research-infrastructures.pdf>

⁹ Regulation EC No.723/2009 amended by the Regulation EU No. 1261/2013

¹⁰ Ibid

¹¹ CERN was described by the EIROforum in 2014 as the “most prominent recent example of a general benefit to the whole of society”

¹² OECD (2008) Large Research Infrastructures. Report on Road mapping of Large Research Infrastructures. Available at <http://www.oecd.org/sti/inno/47057832.pdf>

¹³ The CERN has a Council, a Scientific Policy Committee, and a Finance Committee. The ESA has a Council, and Committees.

¹⁴ SESFRI. (2019). Available at <http://roadmap2018.esfri.eu/strategy-report/>

¹⁵ OECD. (2014) International Distributed Research Infrastructures: Issues and Options. Pag. 12. Available at <http://www.oecd.org/sti/inno/international-distributed-research-infrastructures.pdf>

¹⁶ The objective of CLARA is to promote co-operation among the Latin American NRENs, to foster scientific, and technological development. It is expected that CLARA will develop into Dante’s counterpart in Latin America and will take responsibility for the future of Latin American research networking activities.

¹⁷ European Commission. (2017). Sustainable European Research Infrastructure- A call for action. Page 39 Available at https://ec.europa.eu/info/sites/info/files/research_and_innovation/research_by_area/documents/swd-infrastructures_323-2017.pdf

¹⁸ The difficulties are caused mainly for the supranational RIs’ effects

- Definition of a common goal. The EU has decided to reach a 3% of its GDP invested in R&D.
- International evaluation and accounting standards need to be used.
- National governments need to promote the Bankability of RIs.

Most of these decisions are under the responsibility of politicians. Politicians in charge very often designate a public official in the RI's Assembly so that it becomes important to set the right knowledge and competencies these delegates should have with regard the RI's ecosystem and management.

Sustainability in the long run

One of the elements that require special attention for the promotion of the RIs is their sustainable lifecycle, both of the RIs themselves as well as of their outreach&cooperation activities. As the ESFRI explained in 2017¹⁹, for the European context an effective governance plays a vital role promoting effectiveness and efficiency in RI projects in the long term. Regular evaluations and partner's commitment are also considered key in order to develop extended projects. In particular, it is important that States ensure an adequate time horizon for their financial commitment in funding of RI activities. Moreover, the European Commission in 2017²⁰ identified that reaching a high level of financial and regulatory commitment at the national level together with encouraging the bankability, possible tax exceptions, and the involvement of private funding can ensure sustainable European RIs as long lasting projects.²¹ On the contrary, such frameworks that aim for institutional and financial stability on a regional level are not in place in LAC yet and it should be discussed whether the same conditions apply for LAC RI projects.

Despite the fact that patents of developments of RIs are the first backstop of the negative outgoing spill overs²² they cannot be the only instrument to make RIs sustainable. As the R&D risk is shared²³ among partners, their financial and regulatory commitment are the cornerstone to maintain RIs operating. Thus, including strategies for their development into innovation policies that enhance their economic and wider social value can foster their long-term existence²⁴.

Suggested reference documents for consultation

- European Commission. (2017). Sustainable European Research Infrastructure- A call for action.
- ESFRI. (2017). Long-Term Sustainability of Research Infrastructures.
- Arvantis S. & Bolli T. (2018). A Comparison of National and International Innovation Cooperation in Five European Countries.
- RAMIRI Handbook (2012). <https://www.ceric-eric.eu/project/ramiri-handbook/>
- OECD (2014). International Distributed Research Infrastructures: Issues and Options.
- ESFRI (2016). Public Roadmap 2018 Guide.
- <http://roadmap2018.esfri.eu/media/1044/part1-project-landmarks-list.pdf>

¹⁹ ESFRI. (2017) Long-Term Sustainability of Research Infrastructures. Pag 59.
https://www.esfri.eu/sites/default/files/u4/ESFRI_SCRIPTA_VOL2_web.pdf

²⁰ European Commission. (2017). Sustainable European Research Infrastructure- A call for action. Available at https://ec.europa.eu/info/sites/info/files/research_and_innovation/research_by_area/documents/swd-infrastructures_323-2017.pdf

²¹ Ibid. Pag. 47 and 48.

²² Arvantis S. & Bolli T. (2018) A Comparison of National and International Innovation Cooperation in Five European Countries. Available at https://emnet.univie.ac.at/uploads/media/Arvanitis_Bolli.pdf

²³ RIs are costly and cooperation is a way to finance research as well as share the risk that it has.

²⁴ ESFRI. (2017) Long-Term Sustainability of Research Infrastructures. Pag 10.
https://www.esfri.eu/sites/default/files/u4/ESFRI_SCRIPTA_VOL2_web.pdf

- European Commission, Directorate-General for Research and Innovation (2017). Horizon 2020 and the Research Infrastructures Landscape.
https://ec.europa.eu/research/infrastructures/pdf/ri_landscape_2017.pdf
- European Commission, Directorate-General for Research and Innovation (2017). H2020 Research Infrastructures offering free access with EU support.
https://ec.europa.eu/research/infrastructures/pdf/infrastructure_offering_tna.pdf