



E-RIHS

EUROPEAN RESEARCH INFRASTRUCTURE
FOR HERITAGE SCIENCE

E-RIHS IP

European Research Infrastructure for Heritage Science

IMPLEMENTATION Phase

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D6.3 Report on Cooperation Activities: Approach and Advancement

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ABSTRACT

This document reports on the approach that will be adopted by E-RIHS IP for setting up a collaboration strategy with relevant projects and research infrastructures at EU and global level towards the establishment of common practice policies in the framework of the future European Research Infrastructure Consortium (ERIC). This strategy is based on previous advances aiming at the same goal of precedent or still ongoing projects, like E-RIHS PP and IPERION HS, and will be described here in terms of objectives and methodology. The set of concrete actions proposed will ensure that existing links with other European Strategy Forum on Research Infrastructures (ESFRI) projects and landmarks and international research infrastructures and consortia, operating in physical, natural science and social and cultural innovation domains, are fully exploited and that new links with other relevant initiatives are created.

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1 ABBREVIATIONS

Abbreviations	Expansion
CERIC	Central European Research Infrastructure Consortium
EOSC	European Open Science Cloud
ERIC	European Research Infrastructure Consortium
ESFRI	European Strategy Forum on Research Infrastructures
GDPR	General Data Protection Regulation
HS	Heritage Science
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
KPI	Key Performance Indicator
MoU	Memorandum of Understanding
OECD	Organisation for Economic Co-operation and Development
RI(s)	Research Infrastructure(s)
SCI	Social and Cultural Industries

2 INTRODUCTION

E-RIHS IP is the Implementation Phase project of the Research Infrastructure (RI) E-RIHS. The main aim of the project is to enable the E-RIHS European Research Infrastructure Consortium (ERIC) to be established and to start its operation phase and position itself as a reference for excellent research in the wide interdisciplinary community of Heritage Science (HS).

The ESFRI Working Group Report “Monitoring of research infrastructures performance” (2019) points out that structuring the international outreach of RIs is one of the key factors to their long-term sustainability, while the 2018 CERIC Survey estimates that 45 % of ERICs and ESFRI Roadmap RIs include international co-operation in their statutes. E-RIHS IP is a large consortium composed of 16 National Nodes (14 founders, 2 observers) plus ICCROM, tens of Institutions and hundreds of researchers working in the field of HS. Heritage Science is a growing, highly dynamic interdisciplinary research domain that is developing fast in a worldwide scenario. In these conditions, the relevance of the future E-RIHS ERIC, the enhancement of its strategic value and the opportunities offered to HS researchers are strongly linked with: a) the possibilities of exchanging learnt lessons and acquired experience with other relevant initiatives at EU and global level (RIs, networks, projects, etc.) in the field of HS and related disciplines; and b) the elaboration of a clear collaboration strategy towards the establishment of common practice policies. On the other hand, cooperation at the global level ensures that good practices and innovative initiatives (e.g. transnational access platforms, training modules, etc.) implemented by E-RIHS partners over the last years in the framework of previous EU collaborative projects could be mirrored or adapted by other national nodes at EU and international levels and contribute to the development of a global RI for HS.

This document “Report on Cooperation Activities: Approach and Advancement” is Deliverable 6.3 of E-RIHS IP that outlines the strategy for strengthening E-RIHS cooperation on the EU scene and beyond. This strategy will be implemented along the time span of the project and the results of proposed actions will be presented in D6.4 “Report on Cooperation Activities” in month 20.

3 OBJECTIVES OF E-RIHS COOPERATION STRATEGY

E-RIHS is foreseen to be established as an ERIC in a short time (2023-2024). The step 2 application was submitted at the end of March 2023. With this near future in mind, E-RIHS IP is committed to elaborating a Cooperation Strategy involving projects, networks and RIs in the field of HS and related disciplines at EU and global levels. The scope for exchange and collaboration is very wide and will depend on the initiative to be contacted. Aspects to be contemplated for exchange include the scientific strategy, access policy, training, communication, and many others that are crucial for the sustainability of a RI.

The specific objectives of the E-RIHS IP Cooperation Strategy are:

- To map the most relevant ESFRI projects and landmarks and international RIs and consortia operating in physical, natural science and social and cultural innovation domains with a view to identify areas of exchange and cooperation;

- To assess and strengthen connections with RIs, ERICs, projects and networks at EU and global levels when previous links have been already established, both to learn from them and to maximize the impact of E-RIHS IP activities;
- Where no previous links exist, to engage with other initiatives, selected as relevant in the mapping exercise, to cooperate with E-RIHS.

4 METHODOLOGY

4.1 Introduction

Elaboration of the Cooperation Strategy in E-RIHS IP does not depart from zero, as E-RIHS consortium has worked, aiming at the same goal, in precedent EU-ARTECH, CHARISMA, IPERION CH, E-RIHS PP and in still ongoing projects, such as IPERION HS. These projects have produced various documents and deliverables (see References) that will constitute the baseline for the methodology proposed here. The steps to generate an effective E-RIHS IP Cooperation Strategy are:

1. To map and target relevant EU and global initiatives and assess the status of present, already existing collaborations;
2. To propose specific actions to reinforce or create new connections via the exchange of experiences, transfer of learnt lessons and establishment of common practice policies. These actions are supported by activities planned in E-RIHS IP tasks 4.2 (E-RIHS Enlargement Strategy), 6.1 (Communication strategy and implementation) and 6.2 (Dissemination and exploitation strategy and implementation) and IPERION HS tasks 8.5 (Relations and synergies with European bodies and initiatives) and 8.6 (International dimension);
3. Periodically assess synergies and opportunities for collaboration.

4.2 Mapping and targeting relevant EU and global initiatives

The mapping exercise will be conducted by web desk research and by exploiting some propaedeutic work described in the IPERION HS Deliverable 8.3 Report on existing RI centralised procedures. Interaction with E-RIHS IP task 4.2 (E-RIHS Enlargement Strategy) will be instrumental for the mapping and assessment of relevant RIs and networks.

Based on the above, a preliminary list has been elaborated (Table 1) distinguishing the two categories of European and international initiatives. In a broad sense, relations with initiatives and networks that already interact with IPERION HS and/or E-RIHS IP will be assessed. For those selected of strategic interest and relevance, a plan for reinforcing and enlarging the existing collaboration will be elaborated. Existing links with other ESFRI projects and landmarks operating in physical, natural science and social and cultural innovation domains (i.e., CERIC, CLARIN and DARIAH ERICs, SSHOC and others), and thus susceptible of collaborate in the broad area of Heritage Science, will be fully exploited, while synergies and opportunities for collaboration and exchanges will be periodically assessed. The Table also identifies other networks or initiatives, with whom no previous exchanges exist, that could be approached to explore areas of collaboration.

The international presence of E-RIHS will constitute the basis towards a global-RIHS collaboration and will be further expanded by fostering global RI connectivity in line with Europe’s international cooperation policy objectives and with the EC High Level Expert Group recommendations. Expert guidelines on how to facilitate partnerships between RIs at global level, including the three white papers produced by the Horizon 2020 RI-VIS project, will be put in practice in order to raise awareness of E-RIHS activities in new communities in EU and beyond. The main links within the E-RIHS ecosystem at global level to be exploited are: (i) the ongoing collaborations with international partners, the Getty Conservation Institute in Los Angeles (USA), The Smithsonian Institution-Museum Conservation Institute in Washington DC (USA), Universidade Federal de Minas Gerais and the ANTECIPA network (Brasil) and Universidad Nacional Autónoma de México (Mexico); (ii) the connection with the EU-LAC ResInfra project where E-RIHS has carried out a pilot action; (iii) the connections with Shanghai University and with the Chinese Academy of Cultural Heritage (China). It is worth noting that thanks to its international partnerships, E-RIHS was recognized in 2015 as a research infrastructure of global interest by the Group of Senior Officials and ICCROM, which operates at the international level, is a valuable partner to facilitate the global reach of E-RIHS activities.

4.3 Specific actions to reinforce or create new connections

To establish a sound cooperation framework according to the above-mentioned objectives, activities will be organized and addressed to the specific RIs, networks or projects that will be selected through the mapping step. Table 1, which lists a large number of such initiatives, also describes the present status of cooperation and some of the envisaged or proposed actions to reinforce or create new connections. Each consortium has specific interests, needs and operating mechanisms and the degree of interaction with E-RIHS is expected to be different. In the coming period E-RIHS IP will define and address specific questions and undertake particular actions to engage to a selected number of these consortia.

Table 1. Preliminary list of candidate initiatives to develop/ initiate cooperation with E-RIHS. Web pages are listed in section 7 Sitography.

Initiative	Present Status of Cooperation	Activities and or actions
European		
ARCHE	<p>Areas of joint efforts include: Investigation on initiatives in partnership networks (ARCHE task 1.3)</p> <p>Joint training activities (e.g., webinar series) under HS Academy developed by IPERION HS</p>	Prepare action to sign MoU with E-RIHS IP

	Collaboration in fine-tuning E-RIHS user strategy	
4CH	These projects have been completed (Ariadneplus) or are near completion (4CH). A follow-up of their evolution (establishment of a permanent RI in form of an AISBL in the case of Ariadne) will be done for exploring ways of cooperation	Actions to be decided
Ariadneplus ARIADNE RI AISBL		
Built4People	No previous formalized exchanges exist	Dialogue for exploring possible cooperation to be initiated
CERIC ERIC	Already partner in E-RIHS PP project, long term ongoing collaboration regarding access policy and provision of services	Define concrete actions based in previous trajectory of exchanges and prepare action to sign MoU with E-RIHS IP
DARIAH	Already partner in E-RIHS PP project, their main involvement regarded the strategies for human resources	Strengthen cooperation among the Humanities RIs in the context of SSHOC cluster, for the virtual open access practices and to stimulate cross-domain activities
CLARIN		
OPERAS		
EHRI	E-RIHS partners participated in EHRI PP project (ended 2022)	
DISSCO	Letter of Intent for collaboration with E-RIHS signed in 2018	Prepare action to sign MoU with E-RIHS IP
ECCCH	Involvement in the preparatory actions for the establishment of the new initiative of EU Collaborative Cloud for Cultural Heritage	Stimulating coordinated project proposals together with relevant partners
EIT KIC C&C	Participation of some E-RIHS partners in the start-up phase of EIT KIC C&C	Exploring ways to facilitate and encourage access to of E-RIHS services for the creative and cultural industries involved in the EIT C&C

EOSC	Participation in the SSHOC Cluster, one of the five science clusters in the context of EOSC	Reinforcing the active participation of E-RIHS in SSHOC cluster Cooperating on future initiatives in the domain for the benefit of the current development of E-RIHS DIGILAB
EUROPA NOSTRA	Europa Nostra and a group of relevant partners, Europeana Foundation, Eurocities among others, have been selected for EU funding for the implementation of a pilot project establishing a European Heritage Hub starting spring 2023	Investigate possible involvement of E-RIHS in the EU Heritage Hub and signature of MoU
EUROPEANA	Dialogue for exploring cooperation in the framework of ECCCH and the thematic Data Space.	Identify concrete actions of cooperation
JPI CH	In 2019 JPI CH and E-RIHS signed a Joint Statement for uniting forces to promote a research and innovation partnership for the future of cultural heritage	Update framework of collaboration Possibility of offering E-RIHS access facilities to carry out JPI-CH projects Prepare action to sign MoU
OpenAIRE-Nexus	A MoU signed with IPERION HS in 2022. Areas of collaboration include Open Science, KPIs, etc.	Prepare action to sign MoU with E-RIHS IP. Define areas of collaboration
SSHOC	E-RIHS signed the MoU for participating in the Social Sciences and Humanities Open Cluster composed of ESFRI projects and landmarks operating in the SCI domain	Contributing to SSHOC thematic services to EOSC Exchange best-practices for DIGILAB developments
Urban Europe	No previous formalized exchanges exist	Dialogue for exploring possible cooperation to be initiated

International		
EU-LAC (Latin America and Caribbean) ResInfra project	Coordination and support action project, where E-RIHS has carried out a pilot action "Opening Data in Heritage Science"	Ongoing exchanges to follow up the results of ResINFRA project
Getty Conservation Institute	Partner of IPERION HS Project	Actions to be decided based on previous exchanges Possible involvement through the E-RIHS Enlargement Board (E-RIHS IP T4.2)
ICCROM	A MoU signed in 2018, connects E-RIHS with ICCROM ICCROM is member of E-RIHS IP and ARCHE project Permanent observer of the establishing E-RIHS ERIC	Ensure continuation of the strong collaboration already ongoing regarding outreach and users' needs
Universidad Nacional Autónoma de Mexico as a part of LANCIC consortium (Laboratorio Nacional de Ciencias para la investigación y Conservación del Patrimonio Cultural)	Partner of IPERION HS Project, mainly active in initiatives towards data interoperability in the E-RIHS DIGILAB platform and joint research activities	Involvement through the E-RIHS Enlargement Board (E-RIHS IP T4.2)
Universidade Federal de Minas Gerais as a part of ANTECIPA consortium, Brazilian National Association for Research in Technology and HS	Partner of IPERION HS Project with active participation in the ResInfra pilot project (specifically Electron Microscopy & Microanalysis in Heritage Science)	Involvement through the E-RIHS Enlargement Board (E-RIHS IP T4.2)
SESAME, Synchrotron-light for Experimental Science and Applications in the Middle East.	No previous exchanges exist	Explore ways of exchanging experiences and collaboration Possible involvement through the E-RIHS Enlargement Board (E-RIHS IP T4.2)

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The Smithsonian Institution-Museum Conservation Institute	Partner of IPERION HS Project	Actions to be decided based on previous exchanges Possible involvement through the E-RIHS Enlargement Board (E-RIHS IP T4.2)
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As reflected in the Table, E-RIHS IP intends to collaborate and possibly sign MoUs with a number of formalized initiatives and relevant partners. For this purpose, a template for such document is being prepared in the framework of task 6.3 of the project.

A questionnaire will be elaborated to learn from other ERICs, ERICs-to-be and relevant partnerships and associations (e.g., EOSC) and to explore possibilities of cooperation and the development of common policies. The European Survey Platform (<https://ec.europa.eu/eusurvey/home/welcome>) will be used for such purposes. This questionnaire will focus in RI aspects that are key for sustainability, as identified in the OECD Global Science Forum Report of 2017, by including specific questions about:

1. Scientific excellence
2. Governance
3. Financing and funding models and cost optimisation
4. Risk and upgrade management
5. Data management
6. Human resources and staff policies
7. Users' interests and access policies
8. Innovation and technology transfer
9. Public awareness and outreach

Other relevant questions will concern decision-making, monitoring socio-economic impact, sustainability, international outreach strategy, citizen science and suggested ways of collaboration with E-RIHS.

In specific cases, the questionnaire will be followed by an interview with a representative person of the consortium. An interview protocol will be elaborated considering General Data Protection Regulation (GDPR) supported by the European Commission.

Analysis of the responses to the questionnaire and interviews and the ensuing cooperation actions will be described in D6.4 "Report on Cooperation Activities" due in month 20 (May 2024) of the E-RIHS IP project.

The outcome of the survey will also serve to improve the mutual knowledge and propose more factual cooperation actions.

4.4 Periodic assessment of synergies and opportunities for collaboration

Calls for proposals under the Horizon Europe framework programme of the European Commission will be closely scrutinized to identify opportunities for strengthening and expanding collaboration both at EU and global scenarios. Specifically, for the near future, calls under schemes INFRADEV (aiming to develop, consolidate and optimise the European RIs landscape, and maintain global leadership) and INFRASERV (offering RIs services to support health research, accelerate the green transition and digital transformation, and advance frontier knowledge) will be monitored and disseminated within the E-RIHS IP consortium to encourage the presentation of proposals. Info days for Horizon Europe's RIs which are periodically organized will be showcased within the E-RIHS IP partnership to facilitate encounters with other RIs and ERICs.

Open Science endeavours offer ample opportunities for collaboration with European consortia in the field of HS. ESFRI supports the development of a European Open Science Cloud (EOSC) and encourages the RIs to connect with EOSC sharing open and fair research data and contributing to interdisciplinary and transdisciplinary research. It is expected that E-RIHS will enable this connection within the future European Collaborative Cloud for Cultural Heritage (itself linked to EOSC). In this challenging digital environment, E-RIHS IP is part of ESFRI and participates in the EOSC challenges. E-RIHS IP is building the Open Science strategy in view of the future ERIC and is contributing to reaching the EOSC goals by participating in it with the different roles of data producer, service provider and final user. E-RIHS IP aims to collaborate with other research infrastructures (DARIAH, CLARIN, OPERAS, EHRI, DISSCO, SSHOC) and other international initiatives, such as the Research Data Alliance (RDA), the EGI-ACE project (Advanced Computing for EOSC), to succeed in the long-term objective of interoperability.

Finally, E-RIHS is playing a key role in the discussion to establish the European Collaborative Cloud for Cultural Heritage (ECCCH), an initiative designed to support cultural heritage institutions, research organizations, and practitioners in addressing digital transition challenges. The E-RIHS contribution to ECCCH is particularly relevant to the future development of E-RIHS DIGILAB. Furthermore, the integration of E-RIHS DIGILAB in ECCCH will further enhance knowledge co-creation across different disciplines and heritage practitioners.

5 FORWARD STEPS

In this document, we have reported on the approach that E-RIHS IP consortium will undertake towards the establishment of a Cooperation Strategy with relevant networks and initiatives, of various kinds and geographical influence, that operate in the physical, natural science and social and cultural innovation domains and thus are susceptible of collaborate in the broad area of Heritage Science. Together with describing the objectives and methodology of the Strategy, we have presented a preliminary list of projects and the specific actions to be undertaken in each case.

In the coming months, the partners participating in task 6.3 of E-RIHS IP, will elaborate a questionnaire to be distributed among the targeted initiatives to identify specific areas of exchange

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and collaboration. The analysis of the answers to the questionnaire, jointly undertaken within task 6.3, will serve to filter the most important projects or networks where the cooperation actions can be more relevant and useful for the future E-RIHS ERIC. In those cases, a set of interviews will be programmed to identify concrete arrangements of cooperation. A detailed account of the results of such exercise will be reported at month 20 in D6.4.

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