



IPERION HS

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D 1.1: Quality Monitoring Plan with KPIs

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Abstract

(300-500 words)

The IPERION HS project aims at establishing and operating an integrated activity for the establishment of a distributed pan-European research infrastructure on heritage science. Since 2016 heritage science is included in the ESFRI Roadmap through E-RIHS, the European Research Infrastructure on Heritage Science, evolving towards becoming an ERIC. Looking forward towards such time, IPERION HS will provide the pan-European heritage science community with a further level of integration and its rules and procedures are aimed at adaptation and improvement for future adoption under E-RIHS ERIC.

As results from the working of a previous project of organizational nature (E-RIHS PP) the quality of a partner to the future ERIC will be established through an evaluation combining: i) a confirmation of the capacity to do things well; and ii) an assurance that such capacity is suitably managed to bear fruit in terms of results. For that purpose, the outcomes of actions taken by a partner will be evaluated as pertains e.g. their impact and the satisfaction of users. Known partners, those that have already co-operated within the group and are therefore recognized by their activities and the respective results, will be subjected to a simplified evaluation, namely attending to existing feedback from previous users, while new partners will be subjected to a complete evaluation. One of the main aims of quality monitoring under IPERION HS is to establish a background of data allowing to consider the partners of this project for a simplified evaluation scheme if, in the future, they apply to become partners to E-RIHS ERIC.

A basic quality and evaluation system for the services rendered through the project and for its other outcomes is set by this task, based on flexibility and self-evaluation. The task also sets a group of Key Performance Indicators (KPIs) from which should evolve those to be used after the ERIC is established. KPIs will be aimed at forming a reliable picture of the evolution of the project in terms of conformity with set goals, progression of important factors and satisfaction of users in the broad sense of the word. Finally, the task will set ethical principles by which all those working within the Project and, later, under the E-RIHS brand are bound to abide. Those principles are expected to be consequent through procedures followed in all operations.

The deliverable was developed from work done under E-RIHS PP and from the results of an ESFRI Working Group on the monitoring of research infrastructures performance published in December 2019. It includes contributions of IPERION HS WP 2, WP 3 and WP 4 on the survey of users' satisfaction and of WP 8 on the dissemination and communication KPIs.

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Abbreviations

Abbreviations	Expansion
COVID-19	Corona Virus Disease 2019 (an infectious pandemic affecting Europe and most of the World at the time of writing that drastically reduced travelling and direct personal contact)
E-RIHS	European Research Infrastructure on Heritage Science (an ERIC to be)
E-RIHS PP	European Research Infrastructure on Heritage Science- Preparatory Phase (an already concluded H2020 project, GA nr. 739503)
ERIC	European Research Infrastructure Consortium
ESFRI	European Strategy Forum on Research Infrastructures
EU	European Union
IPERION HS	Integrating Platforms for the European Research Infrastructure ON Heritage Science (this Project)
KPI	Key Performance Indicator
KPI _E	A KPI following ESFRI recommendations on a common approach across Research Infrastructures to monitor their performance based on Key Performance Indicators.
QPR	Quality Responsible Person (a member of the personnel of each IPERION HS partner serving as liaison officer with the Project management in matters pertaining to quality management)
nr.	number
WP	Work Package

Narrative (technical) description

1. Introduction

The IPERION HS project aims at establishing and operating an integrated activity for the establishment of a distributed pan-European research infrastructure on heritage science. Since 2016 heritage science is included in the ESFRI Roadmap through E-RIHS, the European Research Infrastructure on Heritage Science, evolving towards becoming an ERIC. Looking forward towards such time, IPERION HS will provide the pan-European heritage science community with a further level of integration and its rules and procedures are aimed at adaptation and improvement for future adoption under E-RIHS ERIC and the word “partner” will be used in its context to refer to independent organizations, members of the IPERION HS consortium or their third parties, expected to integrate E-RIHS once the ERIC is formed.

As results from the working of a previous project of organizational nature (E-RIHS PP) the quality of a partner to the ERIC will be established through an evaluation from a specific perspective. In general, such evaluation combines: i) a confirmation of the capacity to do things well; and ii) an assurance that such capacity is suitably managed to bear fruit in terms of results. For that purpose, the results of actions taken by a partner will be evaluated as pertains e.g. their impact and the satisfaction of users. Known partners, those that have already co-operated within the group and are therefore recognized by their activities and the respective results, will be subjected to a simplified evaluation, namely attending to existing feedback from previous users, while new partners will be subjected to a complete evaluation whose parameters have been set under the working of E-RIHS PP [1].

One of the main aims of quality monitoring under IPERION HS is to establish a background of data allowing to consider the partners of this project for a simplified evaluation scheme if, in the future, they apply to become partners to the ERIC.

A basic quality and evaluation system for the services rendered through the project and for its other outcomes is set by this task, based on flexibility and self-evaluation. The task also sets a group of Key Performance Indicators (KPIs) from which should evolve those to be used later throughout the E-RIHS partnership. KPIs will be aimed at forming a reliable picture from the side of coordination of the evolution of the Project in terms of conformity with set goals, progression of important factors and satisfaction of users in the broad sense of the word. Finally, the task will set ethical principles by which all those working within the project and, later, under the E-RIHS brand are bound to abide. Those principles are expected to be consequent through procedures followed in all operations.

2. Core text

1. QUALITY REQUIREMENTS

1.1. Principles

1.1.2. Commitment with Excellence

The objectives of IPERION HS should be pursued in a framework of excellence: i) when doing research; ii) when performing services for users; iii) in the dealings within the partnership. Excellence must be understood as quality above the normal perception of a satisfactory level, together with the purpose to go beyond the expectations of both external clients (i.e. those paying e.g. for education and training services) and users of services, as well as IPERION HS consortium colleagues.

1.1.3. Commitment with Ethics

All those working within the IPERION HS framework should be actively concerned with their responsibilities towards Society, their colleagues and collaborators, their own standing in the world of science and the commitment of the consortium with the future ERIC. Ethical principles should be strictly applied by all project partners.

The scope of IPERION HS is humanist in nature, aimed to study and preserve heritage received from the past so that it may still be enjoyed in the future. As such, all within the project are expected to act within strict criteria of respect for human rights, respect for the environment and focus on sustainability, commitment towards the free availability of the results of research, and be bound by a code of good research practice.

Scientists and technical staff participate actively, with clarity of purpose and good intentions, on the creation and development of knowledge following the lines of the scientific method. Such activities within IPERION HS are developed in freedom but in a professional, responsible and collaborative manner.

A document (ANNEX 1) has been prepared containing guidelines of ethical principles and derived procedures that are to be sent to all personnel within IPERION HS, with particular emphasis on those communicating with the external environment in the name of the IPERION HS partnership.

1.2. Organization and functioning

Each partner will appoint at least one quality responsible person (QRP) who will connect with the coordinators of this task, particularly for the purposes of the feeding of information needed for the KPIs and the taking of corrective actions suggested by feedback received. The QRP may, in particular, have other scientific or managerial responsibilities under IPERION HS. In the case of partners appointing more than one QRP the scope of each appointment must be stated.

Each provider of access to instruments is responsible for the fitness for purpose of all instruments used and for the preparedness of their operators. Whenever the users are expected to fulfil operations related with the work done on behalf of their projects, either before or during the access (e.g. the preparation of samples), instructions, clearly written in English, must be made available to them. Any instrumental results derived from access by users under IPERION HS must be kept by the provider for at least 5 years in two independent storages, so as to avert the possibility of loss.

The conformity with the quality requirements may be assured: i) by an existing internal quality system based on a methodology stated in a quality manual; or ii) by a declaration of the provider;

or iii) by direct assessment by the QRPs who will thenceforward be responsible for their permanence during the duration of the IPERION HS.

2. FEEDBACK FORMS

The basic IPERION HS feedback form is included in ANNEX 2 and is to be used with the necessary adaptations for the following IPERION HS activities: i) offer of access to instruments moved to sites (MOLAB); ii) offer of access to instruments in the premises of the providers (FIXLAB); iii) offer of access to archives (ARCHLAB); iv) education and training actions; v) dissemination events such as conferences, workshops or webinars lasting for more than a single day.

3. KEY PERFORMANCE INDICATORS (KPIs)

KPIs used in IPERION HS are of two kinds: i) ratios of e.g. feedback results against a perfect score; ii) numbers reflecting some operational aspect meaningful for an evaluation of performance. The second type is in line with most KPIs recently proposed by ESFRI for the monitoring of Research Infrastructures performance [2] and may, or may not, be assessed against a target goal. Such KPIs are particularly useful when considered chronologically, calling for a succession of results to be available from which positive progress, decline or stagnation may be inferred. Deliverable 1.1 is contractually submitted during a particularly difficult period of the COVID-19 crisis, when a partial transition, from face-to-face to remote access and events, is being attempted but not yet implemented and therefore, because of the uncertainty attached to the evolution of the present situation, no fixed targets were formally proposed on most KPIs.

3.1. Access KPIs

3.1.1. KPIs following ESFRI recommendations

KPI_{E1}. Yearly nr. of users' requests;

KPI_{E2}. Yearly nr. of granted accesses;

KPI_{E3}. Share of users per EU country ($KPI_{E3} = \text{nr. of users from country ABC} / \text{total nr. of users}$);

KPI_{E4}. Share of users from outside the EU, including research teams with one or more non-EU nationals ($KPI_{E4} = \text{nr. of non-EU users} / \text{total nr. of users}$).

Note: KPI_{E1} and KPI_{E2} are quantitative indicators of the first objective of the ESFRI proposal (Enabling scientific excellence); KPI_{E3} is a quantitative indicator of the third objective (Enhancing collaboration in Europe); and KPI_{E4} is a quantitative indicator of the eighth objective (Facilitating international cooperation) of the same proposal [2].

3.1.2. KPIs following E-RIHS PP proposals and previous experience

The main KPI is based on feedback from users and a satisfaction rating score from 1 to a top score of 10. The feedback slip is included in ANNEX 2 and may be adapted to all instances by removing or adding items to be rated, except for the item "Overall fulfilment of expectations" which must be included in all cases. This is the item used to calculate all feedback KPIs.

KPI_{Afeedback} = score from all users / perfect score (this is a moving ratio to be internally resolved by ARCHLAB, FIXLAB & MOLAB).

Queries related with access are made by e-mail and channelled to the so-called "user-helpdesk". A second feedback KPI related to access will monitor user-helpdesk quality following the resolution of queries by e-mail. A single survey question (rating 1-10) inserted at the bottom of the e-mail from user-helpdesk on reply to questions will be used, targeting all that may get in touch with IPERION HS, irrespective of the fact that the contact may, or may not, lead to a future access.

KPI_{UserSupport} = score from all contacts for ease of resolution of queries / perfect score (this is a moving ratio).

Two more KPIs are proposed as follows:

KPI_{demand} = number of requests / available slots (yearly ratio to be internally resolved by ARCHLAB, FIXLAB & MOLAB);

KPI_{publication} = nr. of publications in at least pre-print form acknowledging access through IPERION HS / nr. of accesses granted (yearly ratio to be started 12 months after first access, internally resolved by ARCHLAB, FIXLAB, MOLAB).

Note: KPI_{publication} is related with the first objective of the ESFRI proposal (Enabling scientific excellence) [2].

Initial targets after lumping in each KPI all access results together:

KPI_{feedback} ≥ 0.80 at 12 months after first access;

KPI_{UserSupport} ≥ 0.80 at month 18;

KPI_{demand} ≥ 1.2 at 12 months after first access;

KPI_{publication} ≥ 0.8 at 24 months after first access.

3.2. Dissemination KPIs

The following will be initially used:

KPI_{E5}. Yearly total nr. of participants in dissemination events organized by IPERION HS partners;

KPI_{E6}. Yearly nr. of attendees in education events (Training Camps and Summer Schools);

KPI_{E7}. Yearly nr. of webinar hours offered within IPERION HS.

Note: All three KPIs are quantitative indicators of the second objective of the ESFRI proposal (Delivery of education and training) [2].

KPI_{Opublishation} = nr. of own publications in at least pre-print form of IPERION HS partners related to work funded by the Project (yearly total to be started at M24 of the Project).

Note: KPI_{Opublishation} is related with the first objective of the ESFRI proposal (Enabling scientific excellence) [2].

KPI_{Dfeedback} = feedback score from all attendees of in-room events lasting for more than a single day / perfect score (moving ratio to be internally resolved by event type).

Initial target, lumping together feedback from all events:

KPI_{Dfeedback} ≥ 0.70 at 12 months after first event.

3.3. Communication KPIs

KPI_{E8}. Yearly nr. of website accesses;

KPI_{E9}. Average duration of single website access;

KPI_{E10}. Social media insight (evaluated by the yearly number of people engaged).

Note: All three KPIs are quantitative indicators of the fifth objective of the ESFRI proposal (Outreach to the public) [2].

3.4. Administrative KPI

KPI_{efficiency}. Average delay in weeks of the submission of IPERION HS deliverables (KPI_{efficiency} = nr. of weeks after deadline of deliverables uploading / nr. of deliverables submitted).

Initial target: KPI_{efficiency} ≤ 1.0 at 12 months after first deliverable is uploaded.

END OF MAIN DOCUMENT

ANNEX 1

IPERION HS POLICY ON ETHICS

Introduction

The activities under IPERION HS are humanist in nature and aimed to support the study and preservation of culture within the scope of Heritage Science. Ethics within the partnership is understood as a set of principles by which all those working under the project are required to abide. Those principles, listed in the following sections, are consequent through procedures followed in all operations.

1. Respect for persons

Researchers and other professionals working under IPERION HS should maintain the highest moral standard expected by their own employers. They should have concern for others and in general treat them as they would normally want to be treated in likewise conditions.

Whatever their own personal opinions, professionals should behave without prejudice against others, treating them likewise irrespective of gender, nationality, ethnicity, religion, age, sexual orientation, gender expression, presence of disabilities, educational background, professional origin or other personal attributes or aspects through which diversity manifests itself.

People with reduced autonomy should be cared for, so as to ensure that the eventual influence of their condition in their participation to the work is minimized as much as possible.

Tutelage of students or apprentices is to be regarded as a trust under the auspices of the European Union. They should be given as much autonomy of decision in research as possible and treated with the same consideration due to colleagues, respectfully and without exploitation, having only in view the promotion of their learning and professional development in safety and without undue constraints.

Researchers should treat colleagues throughout the partnership respectfully and as equals, and through cooperative actions diffuse knowledge by both teaching and learning. They should share ideas openly whenever confidentiality of procedures or results is not at stake, and give credit for the contributions of others. Before any team work is started, the researchers involved must agree on and comply with set practices for data ownership and sharing, authorship, publication, peer review (if applicable) and cooperation in general.

2. Beneficence (Do Good)

The definition of beneficence is linked with outcomes that are beneficial to others and to the society at large. This principle states that research should aim at some positive outcome that will advance knowledge and our understanding of phenomena under the rule of science, towards a positive purpose such as the enhancement of some of the values of cultural heritage.

Results should be shared with the research community and the society at large through diffusion media and integration in accessible databases.

Beneficence is also connected with doing no harm: professionals should comply with safety policies and procedures and improve them when possible to safeguard from undue risk students, apprentices, all other team members and lastly themselves. They should respect and protect life and the environment avoiding any aggression. They should namely dispose of toxic waste in a responsible manner having in view, not only immediate consequences, but also possible risks in the long run.

3. Justice

All activities and their outcomes are to be developed or handled in a fair way, transparent to all participants. Peer reviews of applications, performance or proposed publications should be conducted in a righteous manner. Whenever possible, there must be clear rules known to those being assessed and all notes should be clearly explained and justified. If necessary, a system of appeal involving a third party must be used. Registers of all consequential remarks and decisions should be maintained and made available to those deciding on any claims or appeals.

Authorship of papers and similar diffusion media should be based simultaneously on: i) substantial contributions to the conception of the research; or the acquisition and interpretation of data for the work; and ii) drafting the texts or revising them critically; and iii) approval of the version to be published in a way that makes the person fully accountable for the contents. Unless there is a clear preliminary understanding otherwise, only those meeting the three criteria should be deemed as authors or co-authors; all that do not meet the criteria but had nevertheless significant contributions should be acknowledged. The order of author names has a meaning that varies with the field but should follow clear rules known previously to all in writing, and agreed between all team members. The IPERION HS Governing Board recommends to all researchers to be generous with students and apprentices giving them, whenever fair, a position as authors that will enhance the development of their careers.

By default, and as known to all and agreed between the team, a measure of confidentiality on processes and outcomes must be observed before publication. Subsequent results must necessarily refer the original publication or acknowledge the sources of the research lines being pursued.

4. Quality

Quality in all of its forms is one of the pillars of the future E-RIHS ERIC and is dully treated in a number of specific documents [1]. Within IPERION HS, researchers and other professionals should strive to remain informed and apply the most recent advances in their field. They should share ideas and information, use instruments of known accuracy, keep complete laboratory registers, maintain professional moderation in their conduct and publications, and give due credit to the contributions of others.

Conflicts of interest and scientific misconduct, such as bold or biased conclusions based on insufficient data, fabrication or plagiarism, are incompatible with the principles set in the present document. Experimental procedures should be fully reproducible and the disclosure of results in scientific media should always include all information needed to replicate the experiments or measurements to a reasonably uncertainty level. Public comments on scientific matters should be made with care and accuracy. Questionable conclusions should be presented as hypotheses and premature or exaggerated statements should be absolutely avoided.

Research is a quest for new knowledge, with critical and systematic verification and peer review. Honesty, openness, a systematic approach and documentation are fundamental preconditions for achieving this goal [3].

Other sources consulted: [4; 5; 6].

ANNEX 2

IPERION HS FEEDBACK FORM

User Satisfaction Survey

We greatly value your opinion of IPERION HS services

By taking a few minutes to fill out this survey, you can help the IPERION HS platforms to continue to improve their services. We are interested in your honest opinion. Your survey responses are voluntary and once given will be directed to the Quality Management Unit. Therefore they are anonymous in the sense that those directly involved in the service will not be aware of the identity of the users.

Thank you for your time.

Access to platform (if applicable): (dropdown menu- ARCHLAB; FIXLAB; MOLAB)

User Project Acronym (if applicable): -----

Please rate from 1=very poor to 10=Excellent:

1. The publicity made by the IPERION HS project concerning the available services and calls for access to the platforms

1 2 3 4 5 6 7 8 9 10

2. Practical information on how to apply as well as the scientific and technical support given by the User helpdesk

1 2 3 4 5 6 7 8 9 10

3. Communication with provider/s prior to the access visit in the framework of its organization

1 2 3 4 5 6 7 8 9 10

4. Interaction and collaboration with the provider/s during the access visit

1 2 3 4 5 6 7 8 9 10

5. Added value of the results obtained for the advancement of your research

1 2 3 4 5 6 7 8 9 10

6. Overall fulfilment of expectations

1 2 3 4 5 6 7 8 9 10

If you have suggestions enabling an improvement of our services or any comment, please write below.

3. Conclusion

The full text of Task 1.3- *Quality assurance and ethical requirements* is as follows:

A basic quality assurance system for the services involved in the Project and for its other outcomes will be developed by this task. The task will also set and use the main Key Performance Indicators (KPIs), which will potentially be inherited and exploited by the future E-RIHS ERIC. The coordination team will develop KPIs to reliably follow and assess the development of the project in conformity with the set goals, e.g. in relation with user satisfaction.

For this purpose, each partner will appoint a person who is responsible for interactions with the coordinator of this task, including information provision and action implementation modified based on feedback received.

This Task will also set Ethics requirements for activities for the current project and the future ERIC. In order to ensure compliance with the ethical requirements by EU Commission and the relevant regulations and guidelines throughout the partnership, the task leader will direct all activities that may be affected by the ethical requirements and prepare a set of guidelines and recommendations. The deliverables associated with this action are: D 1.1 – “Quality Monitoring Plan with KPIs” at M9, which will define a set of KPIs to be used throughout the project as well as target values; D 1.2 [...at M35...].

Deliverable 1.1 materializes the contractual commitment of the IPERION HS consortium under Task 1.3. Seventeen KPIs were defined of which fifteen may be used in the context of the future ERIC. Given the limitations and uncertainty derived from the present pandemic situation that curtailed or diminished travel and face-to-face interactions, target values were defined for only six of them. It is expected that once the situation is under control and the first indicators are available, target values may be set on more KPIs.

The deliverable also includes a policy on Ethics, previously developed under E-RIHS PP, that will now be communicated to all personnel involved in IPERION HS actions.

References

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