This preliminary report aims to assess and compare alternative business and governance models to be implemented when EURHISFIRM will enter its operational stage.

SUMMARY

Stakeholders: it explains our approach to the identification of the stakeholders.

Business Models: compare main archetypes for an RI and enumerates the possible revenue sources that could apply.

Develop Products: the section Services identifies the basic services that EURHISFIRM should offer and proposes some additional value-adding services.

Demonstrate Value: the section Benefits details the frameworks and indicators to measure EURHISFIRM’s services value.

Typologies of RIS

- By Location
- By IDRIS Category
- By Main Activity
- By Scientific Disciplines

EURHISFIRM will be a distributed RI and the model (loose connection, central coordination, central shared coordination) will be decided by taking into consideration feedback from all stakeholders.

EURHISFIRM could be classified among IDRIS as a C.1 RI: a data-oriented infrastructure for federation, management, storage, and curation of large data sets.

EURHISFIRM’s main activity will be providing access to data.

EURHISFIRM’s objective is to operate inside the ESFRI landmark “Social & Cultural Innovation”. EURHISFIRM aims to operate as a necessary and complementary historical extension of ESFRI CESSDA ERIC. We also envisage EURHISFIRM to closely collaborate with ERC DARAH.

Life-Cycle of an RI

EURHISFIRM is currently in the design stage, funded under the H2020 INFRADEV-01 Programme by the European Commission.

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Value Proposition

In this preliminary report, we focus on the following points:

- Stakeholders: it explains our approach to the identification of the stakeholders.
- Business Models: compare main archetypes for an RI and enumerates the possible revenue sources that could apply.
- Develop Products: the section Services identifies the basic services that EURHISFIRM should offer and proposes some additional value-adding services.
- Demonstrate Value: the section Benefits details the frameworks and indicators to measure EURHISFIRM’s services value.

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This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement N° 777489.
Stakeholders with high power and interests aligned with EURHISFIRM’s goals are critical in order to achieve our mission. Stakeholders with high interest but low power, or high power but low interest, should be kept informed and satisfied. Although they represent a secondary audience for EURHISFIRM, ideally we should win their support for EURHISFIRM’s goals and policy.

The final task is to conduct a survey/workshop with key stakeholders. The goal is to identify core values for the entire set of stakeholders. The surveys should focus on values related to the economic/financial, environmental and social dimensions of sustainability.

STAKEHOLDER IDENTIFICATION

To help steer discussions, we draw on the following categories identified by SSHOC to prepare a list of our relevant stakeholders:

- Data Depositors
- Data Users
- Research Institution
- Research funders
- Philanthropic Funder
- Competitor
- Policy Makers

Once stakeholders are identified and prioritised, we must recognise their role(s) within EURHISFIRM:

- Data Depositors
- Data Users
- Research Institution
- Research funders
- Philanthropic Funder
- Competitor
- Policy Makers

We must consider that a stakeholder could play several roles in our RI, but we must identify its primary role.

MAPPING INFLUENCE

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MAPPING ROLE

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SURVEY

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BUSINESS MODEL ARCHETYPES

PUBLIC RI
The EC supports design and development of the RI and its operation would be funded by the EC and EU Member States interested in EURHISFIRM.

**Pros**
- Very scientific-oriented
- Open access
- Less challenging to involve researchers to share their data
- Limited range of data
- More sustainable from an economic point of view
- No single source of failure.
- Can maintain compatibility with open data principles.

**Cons**
- Limited range of services
- Very challenging to involve businesses and their data
- More complex structure to offer more services

PUBLIC RI + VALUE ADDED SERVICES
Funded by public entities to ensure sustainability but also could offer the basic services for free and other value-added services.

**Pros**
- A broader range of customers and service offerings
- More sustainable from an economic point of view
- No single source of failure.
- Can maintain compatibility with open data principles.

**Cons**
- More complex structure to offer more services

PUBLIC-PRIVATE RI
EURHISFIRM would be governed by both public and private entities. The partnership could vary, but to ensure the scientific use of the data, at least 50% of partners should preferably be public institutions.

**Pros**
- Involving businesses as partners instead of having them as competitors
- More sustainable from an economic point of view
- Not a purely-scientific orientation
- Tight surveillance is required to ensure the ethical requirements and scientific impact
- More challenging to convince individuals to share their data

**Cons**
- Very scientific-oriented
- Open access
- Less challenging to involve researchers to share their data
- More complex structure to offer more services

PRIVATE RI
EURHISFIRM will be supported by the project funding for a specific period of time while afterwards, it will transform into a private RI (funded only by private entities and organisations).

**Pros**
- Economically sustainable and no need for public funding
- A broad range of customers and service offerings

**Cons**
- Business-oriented instead of scientific-oriented
- Very difficult to integrate individuals’ data
- Big data companies as direct competitors
- All services are paid services, even for researchers

REVENUE STREAMS
Various combinations of revenue sources are available for each business model, which can mitigate some of the potential weaknesses and threats related to particular funding sources.

**Structural Funding**
Long-term stability, not project funding. Compatible with open data principles. The engagement and continued commitment of national funding agencies are more challenging.

**Data Access Charges**
Fees can reflect the value of the data products to users, but they conflict with open data principles, constrain re-use, and reduce the value and impact of the data, thereby reducing the return on investment in the research activities.

**Membership model**
EURHISFIRM could apply a model of “Cross Subsidization” based on the idea that the RI can charge higher prices to one group of users to subsidise lower fees for another group. Fees could differ according to members’ typologies.

**Philanthropic donors or private foundations**
Usually based on project-based grant agreement or scholarships. International funders might benefit from fostering their collaboration, in effect transitioning to a club model.

**Hosting or institutional support**
As a business model, one based on host or institutional funding may also combine regulation (institutional mandates) with incentives (including repository funding and support) and has no negative or limiting impacts on data deposition.

**Contract for services and project funding**
Short-term and not a sustainable sole revenue source. Could support innovation and development that cannot be funded from core structural or host funding, or by charging directly to depositors or users.

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In this section, the Report identifies basis services that EURHISFIRM should offer and additional services that could contribute to revenue diversification.

**Access to raw data**
EURHISFIRM, in line with the Open Science Principles, will make the raw data freely available under a licence of use in an open access mode.
Revenue sources to be considered:
- Structural Funding
- Host or institutional funding
- Philanthropic donors or private foundations

**Value-added data**
Value-added data are produced from the raw data and information deposited with EURHISFIRM, under the premises of Open Science.
Revenue sources to be considered:
- Data Access Charges
- Membership fee

**Projects on demand**
EURHISFIRM could also offer on-demand consultancy services, for instance analysis of specific data sections (patterns, trends, data transformation).
- Charging for access to value-added services
- Contract for services and project funding
- Membership fee: Reduced prices

**Helpdesk & networking**
EURHISFIRM supports users in understanding data characteristics and offers networking and community building services.
Revenue sources to be considered:
- Structural Funding
- Host or institutional funding
- Philanthropic donors or private foundations
- Membership fees

**Data Production**
EURHISFIRM could offer services aiming to facilitate Data Production, for instance automatic data extraction from digitalised primary sources, data standardisation, etc.
Revenue sources to be considered:
- Charging for access to value-added services
- Contract for services and project funding
- Membership fee: Reduced prices

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BENEFITS

"The success of an RI is not measured by net income but by knowledge production and by its impact on public knowledge (non-economic, and mainly without income). Scientific and Technical Advisory Bodies of the highest quality and independence are the real assets of a successful RI, and also have the important function to balance the intrinsic tensions outlined above”

RAMIRI HANDBOOK

ECONOMIC BENEFITS

Centered on the cost of not having EURHISFIRM based on “Cost-benefit analysis for FAIR research data” EC Document

#1 Time Spent
Time spent due to non-FAIR data and transformed into a financial value using the average salaries for researchers per country

#2 Storage Cost
The electronic storage costs for additional redundant copies of the data that would otherwise not be needed if the data was FAIR.

#3 License Cost
The licence costs to use data which could have been made available as open and FAIR data.

#4 Research Retraction
The cost of research which would not have been retracted if the FAIR principles had been respected.

SOCIO-ECONOMIC BENEFITS

Centered on “Reference framework for assessing the scientific and socio-economic impact of research infrastructures” developed by OECD

#1 Objective:
"EURHISFIRM designs a world-class RI.”

- S2 Number of citations
- S3 Number of publications in High impact factor journals
- S4 Number of projects granted
- S6 Number of scientific users
- S9 Collaboration excellence (scientific)
- S10 Structuring effects of the RI on the scientific community

#2 Objective:
“Big data revolution in the historical social sciences”

- T18 Patents with a commercial use
- T20 Innovations co-developed with industry
- T24 Collaborative projects with industrial partners

#3 Objective:
“enable stakeholders to analyse, develop, and evaluate effective strategies to promote investment and economic growth.”

- H43 Students trained
- H45 Educational and outreach activities
- O46 Production of expert advice in support of public policies
- O47 Production of resources in support of public policies

#4 Objective:
“Provide high-quality long-run company-level data for Europe”

- O49 Production of experimental, observational data in support of public policies
- T28 Data commercial use and data services

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**LEGAL FORMS**

- Part of an Academic Institution, or
- Be an ERIC*(1):
  - Independent ERIC, or
  - ERIC as Service Provider inside CESSDA*(2), or
- Consortium not ERIC (i.e International Organisation ruled by an international treaty like AISBL (Association Internationale Sans But Lucratif), or
- Project /Workgroup in other ERIC

*1 ERIC: European Research Infrastructure Consortium, A specific legal form that facilitates the establishment and operation of Research Infrastructure. More information [click here](#).

*2 CESSDA ERIC is currently a EURHISFIRM consortium member.

**MEMBERSHIP**

- Fixed
- Based on GDP
- Based on other Algorithms

- Capital
- In-kind

**TYPES**

- Full Members
- Founding Members
- Hosting Members
- Observers
- Associate Members

**STRUCTURE - GENERIC GOVERNANCE**

- **Advisory Bodies**
  - Represent various partners/stakeholders and provide advice the governing structure.

- **General Assembly**
  - Highest authority with decisions on financial matters and long-term strategy.

- **Executive Committee**
  - Reports to the General Assembly composed of Board of Directors.

- **Head Office**
  - Takes care of day-to-day business.

Other existing Consortia include additional governance bodies:
- Stakeholder Forum: Main interface for stakeholders that are not represented in the General Assembly because they are not members.
- National Coordinator Committee: This is useful in the case of distributed RIs with distributed nodes (mainly one per country).
- Services Providers’ Forum: This body enhances the co-ordination, facilitation or integration of research based on a common scientific theme that relies on multiple service providers.