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Una Europa Strategy and Action plan for sharing and opening up Research and Data Infrastructures

Alma Mater
Studiorum Università
di Bologna

The University
of Edinburgh

Universiteit
Leiden

KU Leuven

Université Paris 1
Panthéon-Sorbonne

Freie Universität
Berlin

University
College
Dublin

Helsingin
yliopisto

Uniwersytet
Jagielloński
w Krakowie

Universidad
Complutense
de Madrid

Universität
Zürich

Creating a common framework **of short, medium and long-term actions** aimed at achieving a stronger Una Europa R&I ecosystem where **research and data infrastructures are open and connected**, and support the **advancement of collaborative research and education activities**

1. Promoting openness of RIs and data infrastructures to foster research collaboration
2. Strengthening Research and Data Infrastructure Skills
3. Developing a stronger and more integrated Una Europa Research Infrastructure Ecosystem



**UNA.RESIN WP2 TEAM:
UNIBO, KU LEUVEN, PARIS 1**

The broader context



EU policies

- Pact for R&I in Europe
- Council conclusions on RIs (Dec 2022)
- Brno Declaration
- European Open Science Cloud (**EOSC**)
- Research Data Alliance
- **ESFRI**

ERA Policy agenda

- **Action n. 1:** open sharing of knowledge and the re-use of research outputs
- **Action n. 8:** strengthening the sustainability, accessibility and resilience of research infrastructures in the ERA
- **Action n. 17:** science management initiative to improve training skills of science management staff

Una.Resin activities (WP2)

- **Mapping of RIs:** benchmarking exercise and thematic mapping (One Health & Cultural Heritage)
- **Co-creation workshop** on RIs
- **Open Research Survey**
- Joint workshop with **RiTrain Plus**
- **Pilot actions** on RIs (blueprint for a common catalogue; matchmaking formats for RIs)

Pillar 1: Promoting openness of RIs and data infrastructures to foster research collaboration



BARRIERS and ENABLERS

Take forward the **analysis** of **barriers** to identify **common enablers and solutions in pilot areas**, resulting into recommendations for common guiding principles

- Towards **scaling up the analysis** and suggesting solutions across different research fields

DATA COMMUNITY

Support the development of a **Data community** to promote the **exchange of best practices** among Una Europa data experts/managers, the **consolidation of FAIR data principles**, physical mobility and joint proposals development

- Towards the creation of **synergies** between Open Data networks across European alliances and with EU initiatives

RIs COMMUNITY

Support the development of a **RIs community** through networking and matchmaking (virtual and in-person) workshops and events in **thematic areas**

- Towards the creation of **virtual thematic networks of RIs** across Una Europa and **synergies** with other alliances

COMMON TOOLS ON RIs

Co-create common tools to share information on Una Europa RIs, to facilitate cross-institutional access and visibility, also towards external users, starting from an advanced **blueprint for a Una Europa digital catalogue of RIs**.

- Towards a **common catalogue** of RIs and **portal of services**.

Pillar 2: Strengthening Research and Data Infrastructure Skills



MUTUAL LEARNING

Implement **mutual learning processes across the RIs and Data community** based on a peer learning approach, starting from the **exchange of knowledge and best practices**, through virtual connection and physical mobility (for job shadowing and in-person exchange visits)

- Towards **structured mobility and exchange formats** and synergies with other relevant initiatives at EU level
-

TRAINING

Implement **training activities** for the benefit of the RIs and Data community, based on the analysis of needs and opportunities, including possible **synergies with RiTrain Plus**

- Towards the development of **structured training programmes by/for RIs and Data community** contributing to the **professional development** of RIs and data managers.
-



Pillar 3: Developing a stronger and more integrated Una Europa Research Infrastructure Ecosystem



VISIONS AND PRINCIPLES

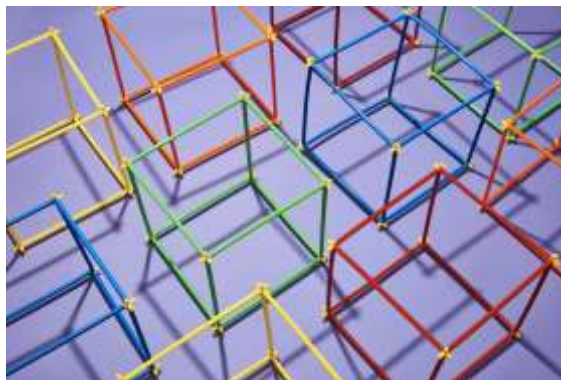
Formulate **coordinated visions** for opening and sharing RIs (e.g. **Una Europa Position Paper**) and draft **common guiding principles** (i.e. **Una Europa Charter for RIs**)

- Towards **adoption and promotion of the Charter** and **awareness raising** actions that can promote a broader **cultural change**, thus fostering collaborative research.

STRATEGIC MESSAGES

Engage in coordinated actions (EU consultations and a Una Europa Position Paper) to advocate for **improvements in the RIs policies and funding landscape at European level**, with specific attention to the challenges faced by small-medium sized RIs

- Towards a **joint Position Paper with with other European University Alliances** and creating synergies with other networks (e.g. LERU, the Guild).



Strategy, action plan and pilots for sharing research and data infrastructures



Laying the essential foundations for sharing RIs and data infrastructures to enable Una Europa researchers to:

Know and easily access the RIs available across the alliance to advance their research goals.

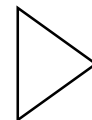
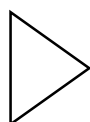
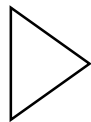
Meet fellow Una Europa researchers to share knowledge and resources.

Collaborate with researchers across the alliance in ways we can't yet anticipate – unlocking the potential of the alliance from a research perspective.



**UNA.RESIN WP2 TEAM:
UNIBO, KU LEUVEN, PARIS 1**

WP2 activities



Pilot actions



Development of a blueprint for common RIs digital catalogue



Creation of researchers and RI's managers matchmaking formats

- Benchmarking undertaken of Una Europa universities' RIs strategies, policies and initiatives
- One Health RIs mapping
- Cultural Heritage RIs mapping
- Identified opportunities e.g, common Charter for Research Infrastructures; knowledge exchange and unified access point for info on Una Europa RIs
- Identified challenges e.g financial and legal constraints

- Insights and observations gathered from researchers to inform strategy and action plan
- Workshops focused on One Health and Cultural Heritage Focus Areas

Strategic pillars:

- Promoting openness of RIs and data infrastructures to foster research collaboration
- Strengthening research and data infrastructure skills
- Developing a stronger and more integrated Una Europa research infrastructure ecosystem

Blueprint for a common catalogue of RIs (1)



- The aim was to lay the foundation for designing a **process that will lead to creation of a common catalogue** of the RIs that are available in the Una Europa alliance.
- The catalogue is intended as a **unified system for managing research infrastructure data**, aimed at **facilitating the process of cross-institutional access** and, thus, promoting sharing and opening the research infrastructures within the Alliance.

THE PROCESS

- **14 participants** from 8 Una.Resin universities
- **1 guest** institution (FRIS - Flanders Research Information Space)
 - **4 meetings**
- ❑ 14/12/2022 - Start the debate on a common catalogue
- ❑ 17/02/2023 - Meeting to discuss about the prototype developed by Unibo
- ❑ 21/03/2023 - Workshop about the best practices (FRIS, FUB, UH)
- ❑ 24/05/2023 - Workshop to discuss the Blueprint drafted by Unibo
- ❑ Finalization by the end of June

Blueprint for a common catalogue of RIs (2)



Technical level

- based on a process of **harvesting of existing information** on RIs available at institutional level
- automatic system to collect and display the existing data in a single place (**web platform**)
- to decrease the effort for the creation and the maintenance of a common catalogue
- **Interoperability of data**: avoid conflicts with existing catalogues at institutional or regional/national level

The Blueprint

- Catalogues of RIs available in the Una Europa universities
- Best practices (FRIS, FUB, UH)
- Lessons learned from the prototype
- Recommendations for a future shared catalogue (architecture, system, taxonomy)
- Guidelines to develop a new catalogue of infrastructures at institutional level
- Future improvement: a services portal for Una Europa infrastructures
- Financial sustainability

Benefits

- increase **awareness** for the academic community about the RIs available across the Una Europa universities and **facilitate access** to them;
- **promote R&I cooperation** and an efficient use of RIs
- connect RIs and **promote Open Science principles** in their operation and activities
- promote the RIs towards possible **external users** (non-academic public, private and third sector users and citizens)
- improve the **economic sustainability** of the infrastructure

Blueprint for a common catalogue of RIs (3)



WP2 – Pilot Action 1	
Blueprint for a common catalogue of research infrastructures	
Concept Note	Version 0.2
WP2 Team	25/05/2023
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Introduction

The blueprint provides the relevant information to develop and implement a common digital catalogue of research infrastructures within the Una Europa Alliance. The catalogue is intended as a collection of data about research infrastructures aimed at facilitating the process of sharing and opening the research infrastructures within the Alliance. The blueprint foresees the inclusion of both the basic information of the infrastructure and of the infrastructure manager or responsible researcher but also other information like the research results produced from the use of research infrastructure and services such as booking and training. Disclosing this information to the UNA community offers possible paths for opening and sharing the research infrastructures within the Alliance.

The need for such a catalogue of research infrastructures is based on the idea that the first step to establish any kind of collaboration is to be aware of the available infrastructures. The academic community engaged during the implementation of [Una.Resio](#) confirmed that their expectations about Una Europa is to make networks with infrastructures belonging to the other universities. They believe that a catalogue could support the development of the network and, therefore, to improve their research and identify additional possibilities on research collaboration. During the co-creation workshop implemented in June 2022, the researchers and [RI](#) managers/experts showed great interest in getting to know each other. This element was considered the main key and is [therefore](#) also proposed as one of the activities under three pillars in the Resio Deliverable 2.2 - A shared Una Europa strategy for sharing Research Infrastructures and Resources as a part of the Pillar "Promoting openness of [RI](#) and data infrastructures to foster research collaboration".

The main benefits of the catalogue are the following: (i) increase awareness for the academic community about the [RI](#) available across the Una Europa universities and facilitate access to them; (ii) promote [RI](#) cooperation and an efficient use of [RI](#); (iii) connect [RI](#) sharing and promote Open Science principles in their operation and activities; (iv) promote the [RI](#) towards possible non-academic public, private and third sector users and also towards citizens; (v) improve the economic sustainability of the infrastructure.

The content of the blueprint is the result of the pilot action organized by [WP2](#) of [Una.Resio](#) project. If experts from the universities were engaged in four workshops from December 2022 to May 2023.

<https://zenodo.org/records/11485665> :

**The cornerstone for a Una Europa common RIs
catalogue and portal of services**

Piloting matchmaking formats for RIs in the field of Cultural Heritage: aim and process



- The aim was to **bring together together academics and technicians of Una Europa RIs** to present their infrastructures and expertise, discuss their mutual interests and possible paths for sharing infrastructures and for collaborating in R&I and education
- WP2 team, RI Cluster members and SSC CH cooperated to define the scope of the pilot action (**Museums and Digital collections**) and the RIs to involve, starting from WP2 thematic mapping in the CH field with an inclusive process
- **Close collaboration with SSC CH:** the 2nd workshop was focused on the possible **contribution of RIs to the actions proposed by the SSC** in their draft action plan (Una Futura)

THE PROCESS

- ✓ **31 researchers from 9 universities** (7 from Una.Resin; University of Zurich; 1 external: University of Paris-Nanterre)
 - ✓ **2 workshops**
- ❑ 30/01/2023 – Launch of the call for expressing interest in the pilot
- ❑ 30/03/2023 – First workshop
- ❑ 4/05/2023 – Second Workshop

Piloting matchmaking formats for RIs in the field of Cultural Heritage: outcomes



- ❑ Various ideas for **collaborative activities** between RIs and SSC of Cultural Heritage emerged from the discussion, e.g. creating a Virtual Museum to showcase universities' heritage; contributing to the organization of joint events; participating in joint calls
- ❑ **Research activities** were also discussed: e.g. RIs as catalysts for new research projects, serving as bases for research activities, including PhD research; supporting Una Europa CH Focus Area in expanding their research topics to include Asia, Africa, and Latin America; assisting researchers in publishing their research in open access and facilitating joint publication initiatives.
- ❑ Possible results in terms of **education activities**: e.g. RIs can propose trainings or courses to develop specific skills (e.g. digitization, imaging, data modelling, open science policies related to CH, and specialized humanities disciplines, 3D representations, etc.); these courses can be integrated into existing PhD or Master programmes.
- ❑ **RIs are interested in the collaboration and the scaling up and the repetition of this project** can definitely generate the interest from other types of infrastructures. The **alignment with the SSCs action plans has an important potential** of the reinforcement of the research eco-system and a better positioning of RIs in institutional policies

Piloting matchmaking formats for RIs in the field of One Health: aim and process



- The aim was to **bring together together academics and technicians of Una Europa RIs** to present their infrastructures and expertise, discuss their mutual interests and possible paths for sharing infrastructures and for collaborating in R&I and education
- WP2 team and RI Cluster members cooperated to define the scope of the pilot action (**Genomics**) and the RIs to involve, starting from WP2 thematic mapping in the OH field with an inclusive process
- The 2nd workshop focused on discussing possible collaborative actions inspired by draft D2.2 action plan.
- The outcomes of the pilot will be presented to the **SSC OH** to start discussing possible collaborations with the network of RIs in Genomics that participated in the pilot action

THE PROCESS

- ✓ **17 researchers** from **6 universities** (5 from Una.Resin and the University Zurich)
- ✓ **2 workshops**
- ❑ 30/01/2023 – Launch of the call for expressing interest in the pilot
- ❑ 23/03/2023 – First workshop
- ❑ 4/05/2023 – Second Workshop

Piloting matchmaking formats for RIs in the field of One Health: outcomes



- ❑ Participants had the opportunity to **know each other**, present the research infrastructures, promote their **collaborative use** and **improve existing own activities**.
- ❑ Genomics research managers expressed their **interest in various areas** including: sharing knowledge & expertise, protocols, pipelines/guidelines, quality standards, resources, automation techniques, experience-sharing on equipment. The need to identify **specialization of themes** as a group was also highlighted.
- ❑ Interest in identifying opportunity for **training** in the field such as, pipeline automation, bio-informatics.
- ❑ Interest in promoting **physical mobility of RI staff** to visit on-sites research infrastructure.
- ❑ The importance of **Open Research activities** (e.g. fair data, metadata production) was highlighted
- ❑ Interest to explore ways to promote the use of RIs for students to take part in **educational activities**.
- ❑ Need for harmonization and centralization, and to **connect to European level of infrastructure**.
- ❑ The importance to create **synergies with the action plans of One Health SSC** and to continue the group further.

Matchmaking workshops - Lessons learned



- ❑ Workshops enable the **establishment and strengthening of networks**: they create opportunities for participants to exchange ideas and knowledge (**mutual learning**), explore potential partnerships, and identify areas of common interest that can lead to fruitful collaborations in the future.
- ❑ Continuing and **scaling up of the workshops to different types, disciplines and focus areas is crucial** for creating a **knowledge community**. This can lead to the formation of **interdisciplinary teams** that can tackle complex challenges and develop innovative solutions. **Physical mobility** will be key to scale this format at a higher level of ambition.
- ❑ For opening-up and (potentially) sharing of RIs an important **step of identifying mutual interest and implementing joint activities** can't be skipped.
- ❑ Collaborations forged through workshops and matchmaking activities can extend beyond initial interactions and serve as a **springboard for joint research projects, collaborative grants, and educational initiatives** (including discipline-specific open research educational activities).
- ❑ The **alignment and synergy between Una Europa's Focus Areas and RIs** are essential for unlocking the full potential of collaboration. By identifying areas of convergence, we can leverage the expertise and resources of RIs to address the challenges and research questions within the Focus Areas.



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**Alessandro Zamboni (a.zamboni@unibo.it)
for the WP2 team: Unibo, KU Leuven, Paris 1**

