WP2 - ACCESS TO FACILITIES, FAIR DATA AND RELATED SERVICES

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IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System
(D.D. n. 130/2022 - CUP B53C22002150006) Funded by EU - Next Generation EU PNRR-Mission 4 "Education and Research" - Component 2: "From research to business" - Investment 3.1: "Fund for the realisation of an integrated system of research and innovation infrastructures"

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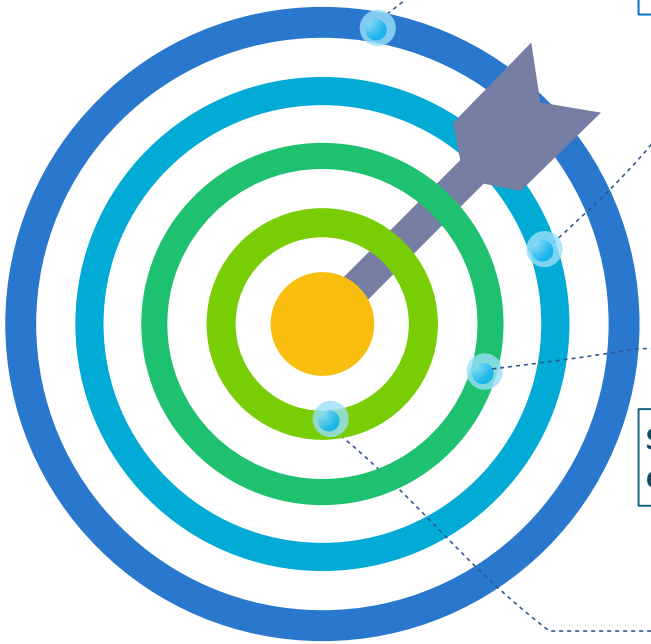
WP2: Summary of the activities



Activity 2.1

Development of a sustainable and strategic framework for access to distributed National ENVironmental RI

Deliverables

Del 2.1 - User strategy
Del 2.2 - Access Master plan
Del. 2.3 - Recommendations for the future National Access Programme

Activity 2.2

Design and Developing of the national environmental RIs HUB

Deliverables

Del 2.4 – ITINERIS HUB
Del 2.5 – Catalogue of data and services
Del 2.6 – Access Platform

Activity 2.3

Support the implementation and the adoption of FAIR-enabling best practices

Deliverables

Del 2.7 - State of the Art review of FAIR
Del 2.8 Fair Implementation Profiles (FIPs)
Del 2.9 Design document describing FAIR implementation choices
Del 2.10 Draft and final Data Management Plan

Activity 2.4

Interdisciplinary data interoperability

Deliverables

Del 2.11 - Review on the existing terminologies
Del 2.12 - FAIR terminologies
Del 2.13 - Description of the Terminology Interoperability Framework architecture
Del 2.14 - Release of the ITINERIS TERMINOLOGY service
Del 2.15 - Integration of ITINERIS TERMINOLOGY in three use-cases

Development of a sustainable and strategic framework for access to distributed National ENVironmental RI

Carmela Cornacchia, Simone Gagliardi, Simona Loperte, **Rosa Maria Petracca Altieri**, Francesca Ricciardi, Corrado Russo

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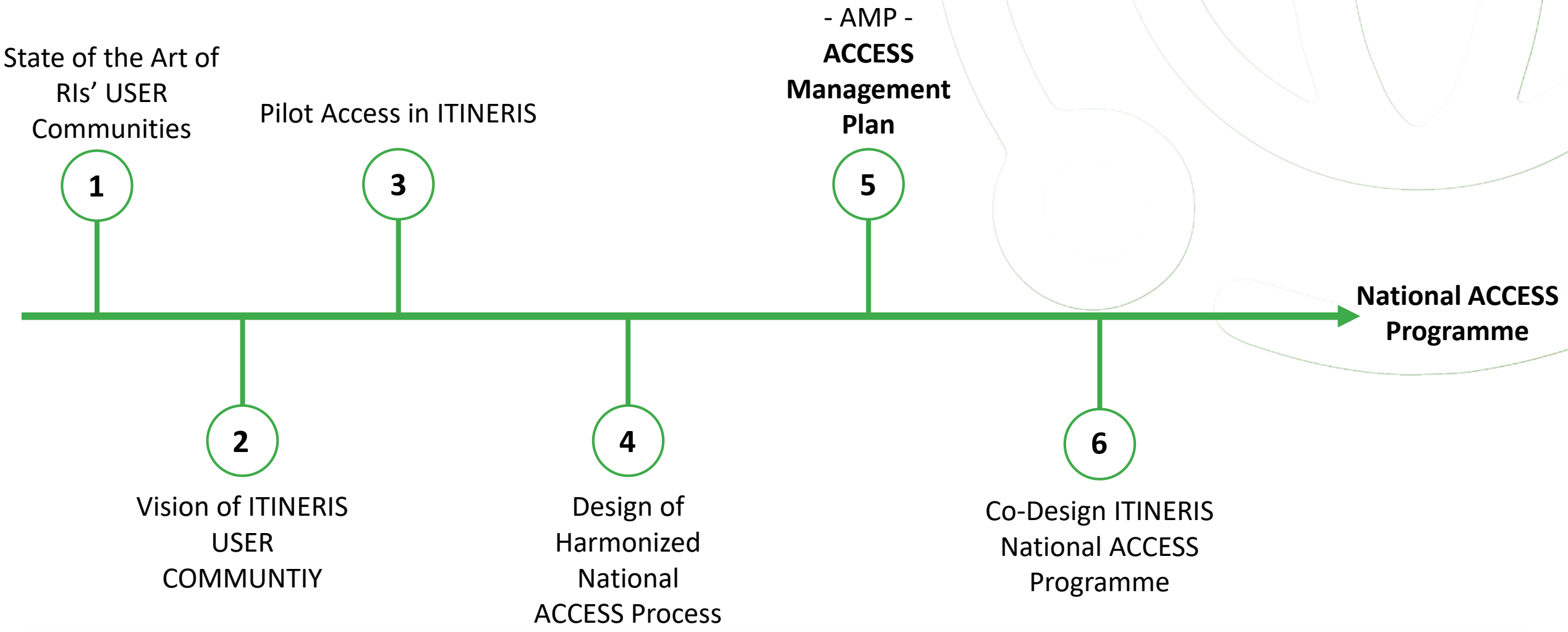
Development of a sustainable and strategic framework for access to distributed National ENVironmental RI



ITINERIS

User mapping

EMSO-ERIC

ELTER

ECORD

DISSCO

DANUBIUS

ANAEE

ACTRIS

SMINO

LAURA BASSI

EUFAR

EURO ARGO

IBISBA

JERICO

GEO SCIENCES IR

EURO FLEETS

CETRA

SIOS

ATLAS

EMPHASIS

INFN

LIFE WATCH

ICOS

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What has been done?

1. Online survey to all the **22 RIs** (April 2023)

2. In deep review of User approach and Access practices in ITINERIS RIs

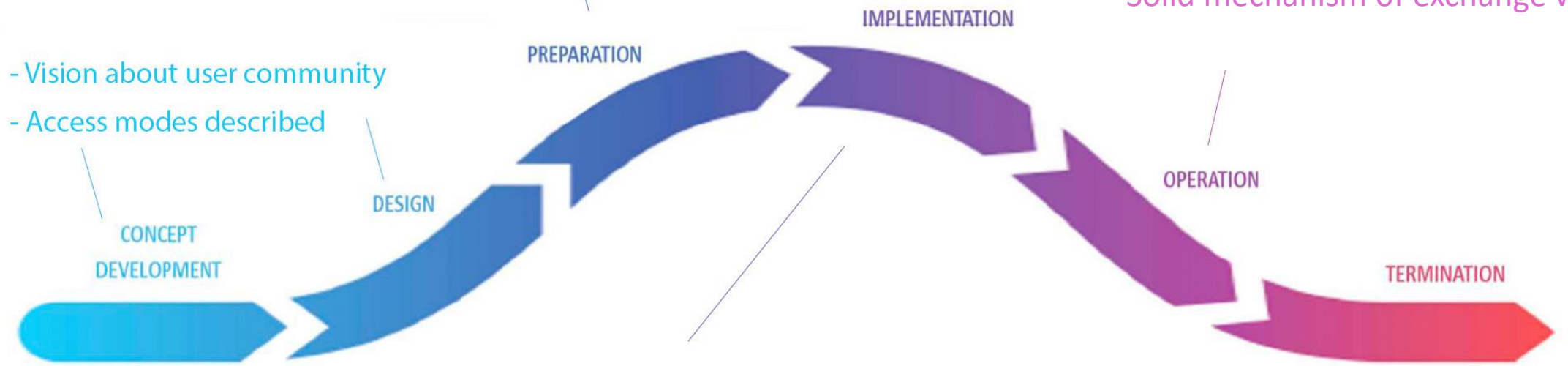
3. Draft of the analysis shared with ACCESS WG (early 2024)

4. Deliverable 2.1 User Strategy – 1st version released

USER & ACCESS IN ESFRI KEY REQUIREMENTS

- Identified user categories
- Survey executed demonstrating expected user community and description of it in terms of origin and size
- Identified services based on a clear identification of user demands and needs
- Single entry point for users outlined

- Solid mechanism of exchange with users



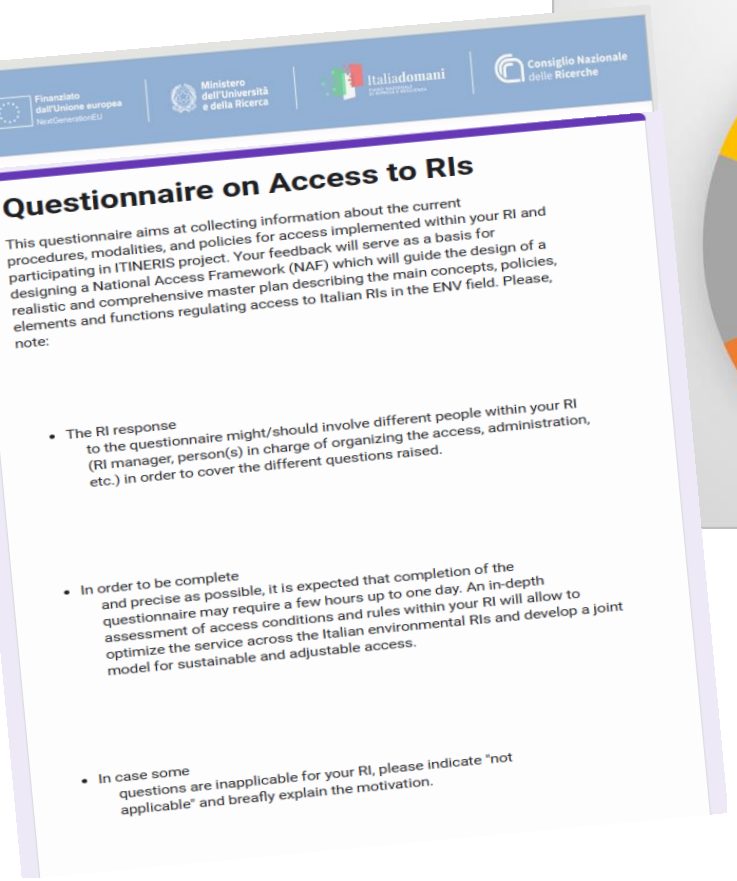
- Vision about user community
- Access modes described

- User community consolidated in terms of origin and size
- Accommodation of user needs/feedbacks
- Catalogue of initial services for users

- Deployed IPR beyond decommissioning

ESFRI, Strategy report on Research Infrastructures - Roadmap 2021

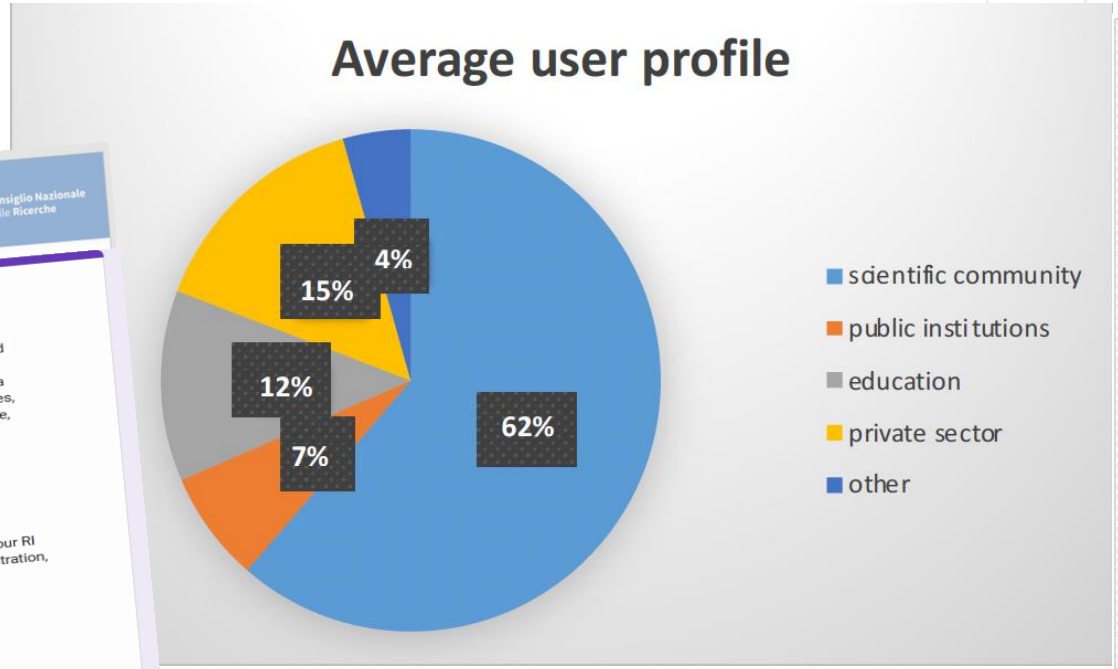
DATA ANALYSIS & FIRST RESULTS

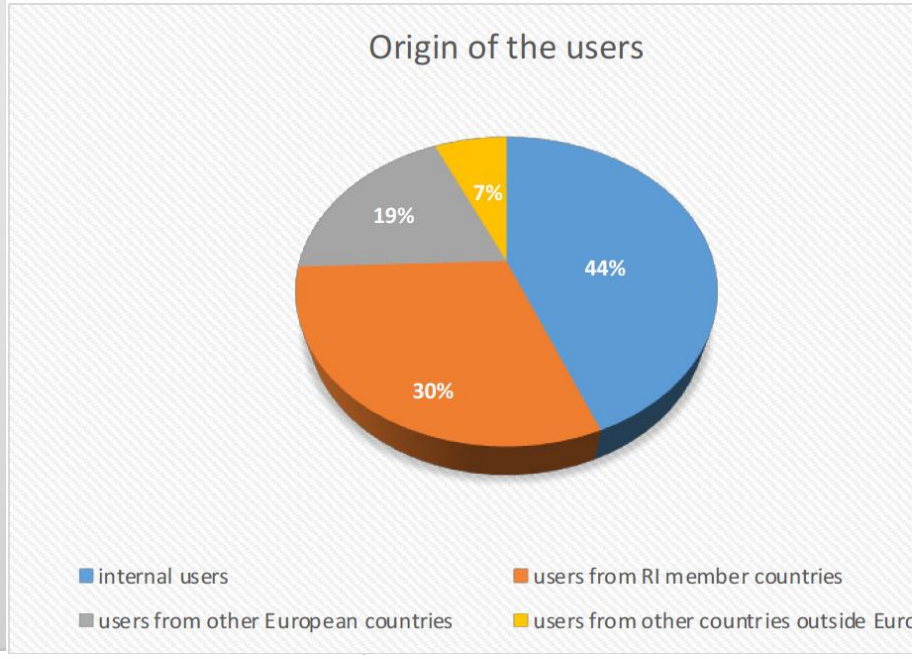


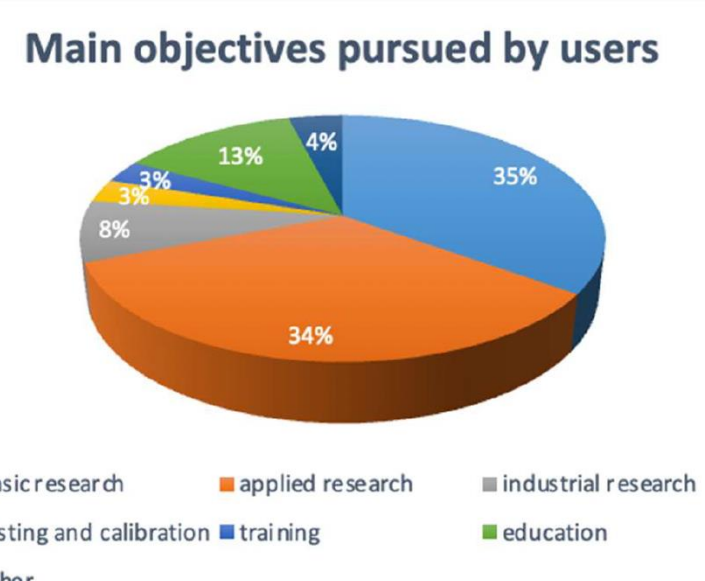
Questionnaire on Access to RIs

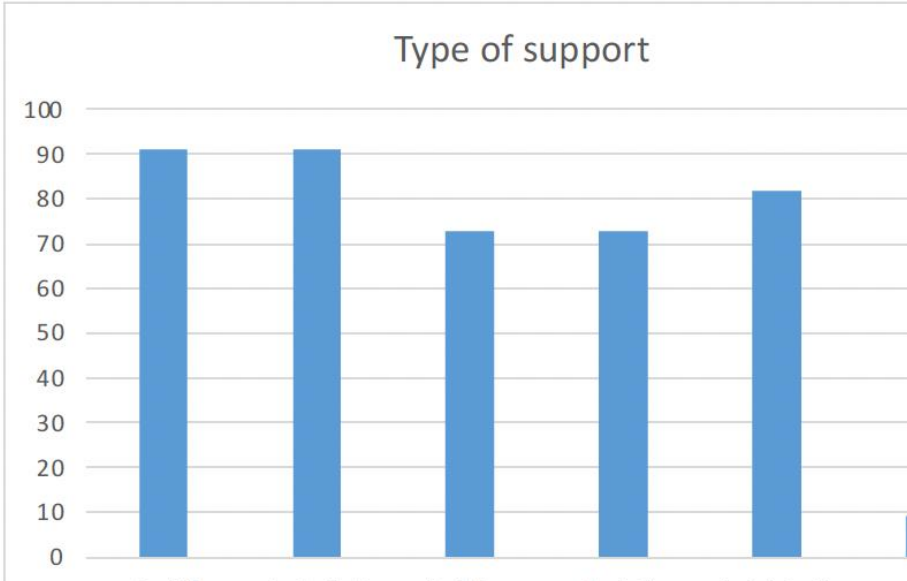
This questionnaire aims at collecting information about the current procedures, modalities, and policies for access implemented within your RI and participating in ITINERIS project. Your feedback will serve as a basis for designing a National Access Framework (NAF) which will guide the design of a realistic and comprehensive master plan describing the main concepts, policies, elements and functions regulating access to Italian RIs in the ENV field. Please, note:

- The RI response to the questionnaire might/should involve different people within your RI (RI manager, person(s) in charge of organizing the access, administration, etc.) in order to cover the different questions raised.
- In order to be complete and precise as possible, it is expected that completion of the questionnaire may require a few hours up to one day. An in-depth assessment of access conditions and rules within your RI will allow to optimize the service across the Italian environmental RIs and develop a joint model for sustainable and adjustable access.
- In case some questions are inapplicable for your RI, please indicate "not applicable" and breafly explain the motivation.





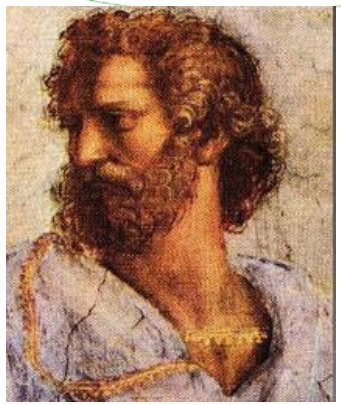




From RIs' user communities towards the ITINERIS USER community

- ITINERIS is intended to promote an holistic, cross-disciplinary approach to the Earth System and its changes, allowing users to benefitting from the integrated system of RIs and enabling each RIs to meet the need of a wider user community.
- ITINERIS aims at generating a multiplier effect by further broadening the user base including new users from the general public, policy makers, private sector and society and intercepting different needs.
- Being ITINERIS in its early stage of planning and implementation, the user community, current and potential, shall still be identified.

"Il tutto è maggiore della somma delle sue parti (Aristotele)"



Questions and Answers

ITINERIS USER MAPPING

Join the conversation

https://forms.office.com/Pages/DesignPageV2.aspx?subpage=design&FormId=n07GNH_S3U6h8BOX8MhPlE4ltKh3p_VHlYCkkMw7i81UOEwwVlM3OVlFNlFRVldIQVNWN1cwVTA5Si4u&Token=3dc78e09296d49d293959ab4f805c5a0

#ItalianResearchInfrastructures

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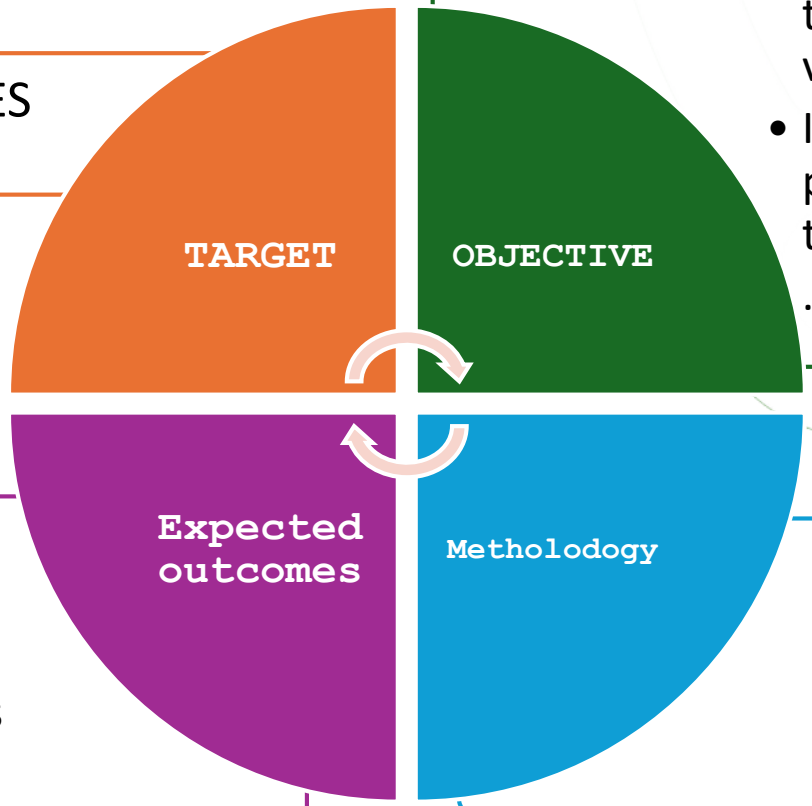
ITINERIS RI SOCIAL & ECONOMIC IMPACT on Local Communites: social role of RIs

- LOCAL COMMUNITIES and civil society



- Orientation of the policies for the implementation of long-term strategies for the social valorisation of IR
- ITINERIS RIs' can improve their policies, activities and services to maximize it

…

- Learning communities rooted in RIs' territories can promote common projects and initiatives
- Cultural benefit for the public and non-experts

- Civic communities will be directly involved in answering ITINERIS survey

PILOT ACCESS in ITINERIS

- Access is how the stakeholders' communities use the RIs and have their needs and interests addressed.
- RIs in ITINERIS provide virtual access, and many also have their own models and tools to offer physical, remote, or hybrid access to their respective services, which can vary a lot → 2 examples:
  - ACTRiS
  - ECORD European Consortium for Ocean Research Drilling
- We will build on commonalities among the RIs to propose harmonized practices to recommend for the Access Management Plan and the national framework for access.

ITINERIS – ACTRIS Pilot TNA Call managed by ACTRIS SAMU

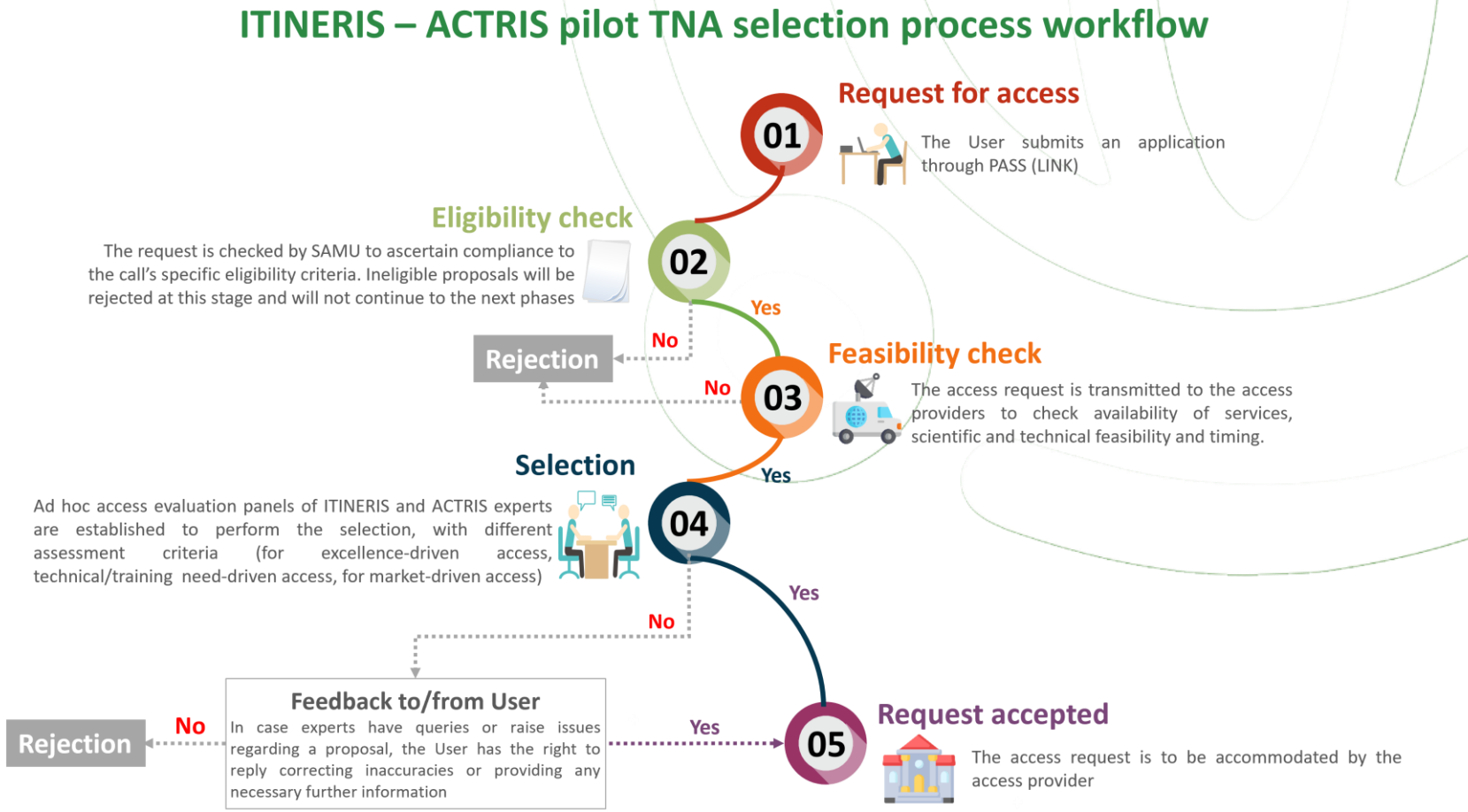
Objective

Establish, test and validate a particular ACTRIS access process tailored to fit the ITINERIS requirements and project general aims

- Programme duration: 16 months (July 2024 – October 2025)
- Access that can be provided:
  - Access of Italian users to all ACTRIS facilities.
  - Access of foreign users to the Italian ACTRIS Facilities.
- Budget available for:
  - Paying services of the requested facilities
  - Supporting the user travel and subsistence costs

ITINERIS TNA Call managed by ACTRIS SAMU

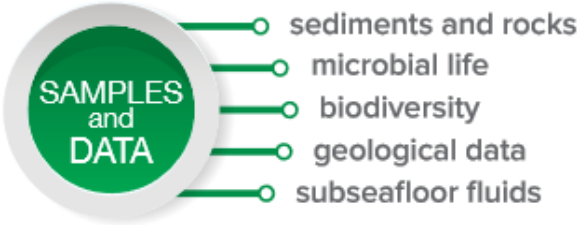
- Application Submission and Selection:
  - Users submit access requests through the PASS via a dedicated call.
  - SAMU screens the applications for adherence to the access requirements (specific eligibility conditions).
  - Access providers check applications for feasibility
  - Access approved following recommendations from a specific ad-hoc review panel



ECORD-IODP and ICDP

HOW TO GET INVOLVED IN ECORD-IODP?

- **Sailing IODP expeditions**
- **Requesting IODP samples**
- **Submitting new IODP proposals**



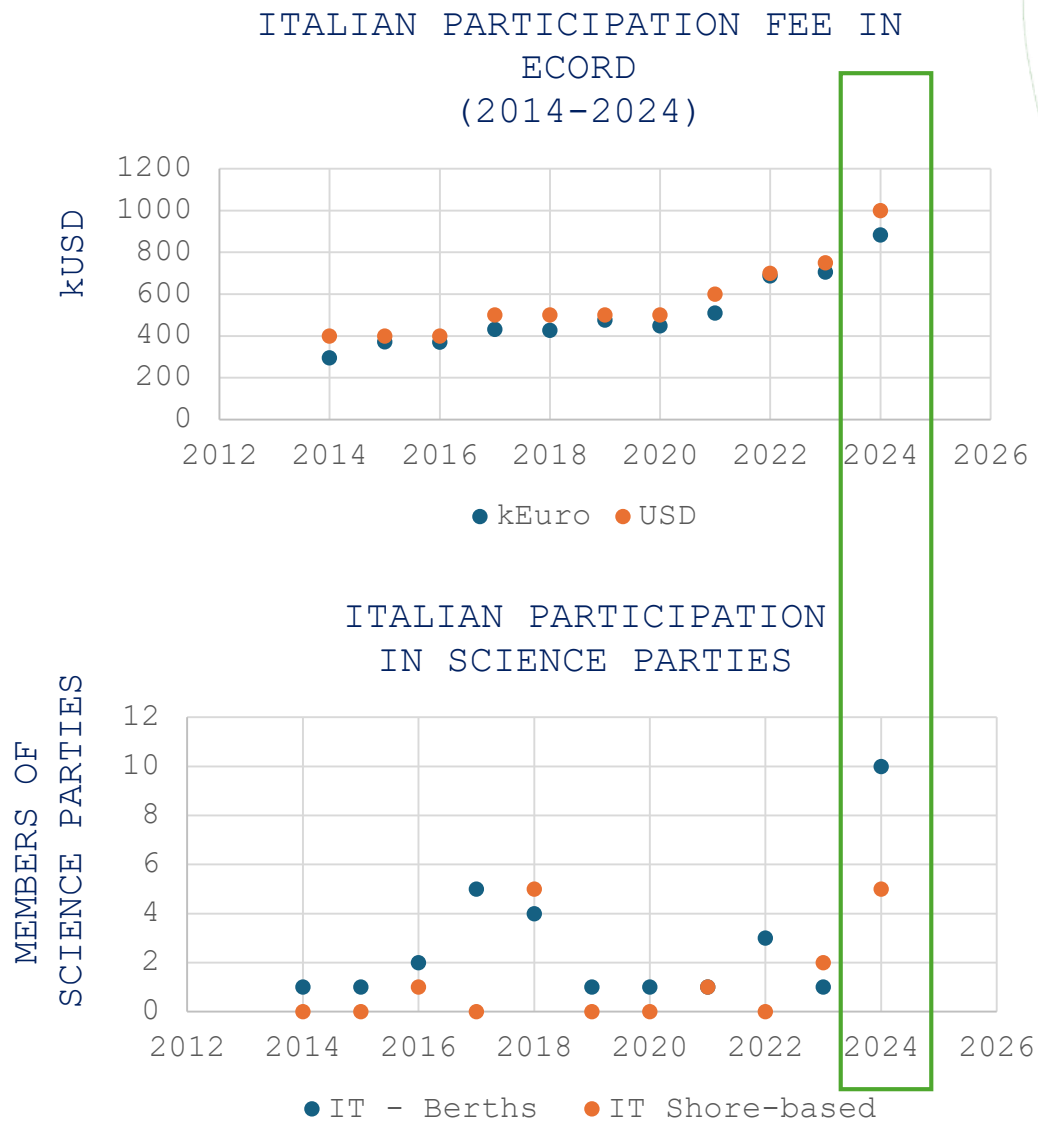
- **ECORD Summer Schools**
- **Distinguished Lecturer Program**
- **Research Grants**

Open calls are issued by ESSAC (ECORD Science Support and Advisory Committee) to join an Expedition Science Party or for other types of access (research grants, summer schools, etc.)

ESSAC evaluates the scientific quality of all applicants and delivers a short list of highly ranked applicants (Senior scientists, Early Career Researchers (ECR), and PhD Students) to the Ship Operator for the composition of the science party.

Access of researchers/students to the ECORD infrastructure for drilling project/expeditions is proportional to a **membership fee** (access to **legacy data** is open and unrelated to the fee)

ECORD-IODP and ICDP



ITINERIS has allowed a remarkable increase in the access of Italian scientists and students to the ECORD infrastructure in 2024.

Impact on access to the ECORD infrastructure in 2024

Next Steps

- Harmonized process to be shared with ACCESS WG after summer break

To identify:

- Main management steps ensuring effective, flexible and seamless access
- General Requirements to be met to accommodate the diverse nature of RIs
- Review Panel composition and ToR
- post-access duties
- Access KPIs

Adoption of FAIR practices in ITINERIS Environmental Research Infrastructures

Ilaria Rosati, Enrica Nestola, Gregorio Sgrigna, Andrea Tarallo, Gianmarco Ingrosso

National Research Council – Research Institute on Terrestrial Ecosystems (URT LECCE)

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Objectives

FAIR is a set of principles to…….

Image credit: Freepik from www.flaticon.com and ARDC https://conference.eresearch.edu.au/fair-go-new-resources-to-support-fair-data/ licensed under a Creative Commons Attribution 4.0 International License

What are the FAIR-enabling practices adopted by **ITINERIS RIs**?

Indicate possible **solutions** to **emerging RIs**

Support the **ITINERIS HUB development**

Support WPs OUs to **FAIRify** their **outputs**

Assess the **RIs alignment** within and outiside **ITINERIS**

Methodology

1. Online survey to all the **22 RIs**
   (March 2023)

2. In-depth review of FAIR-enabling practices adopted by ITINERIS RIs

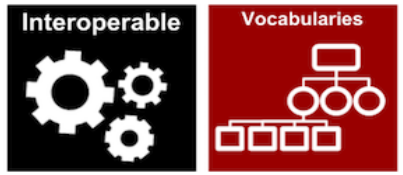
3. Selection of **13 representative RIs**

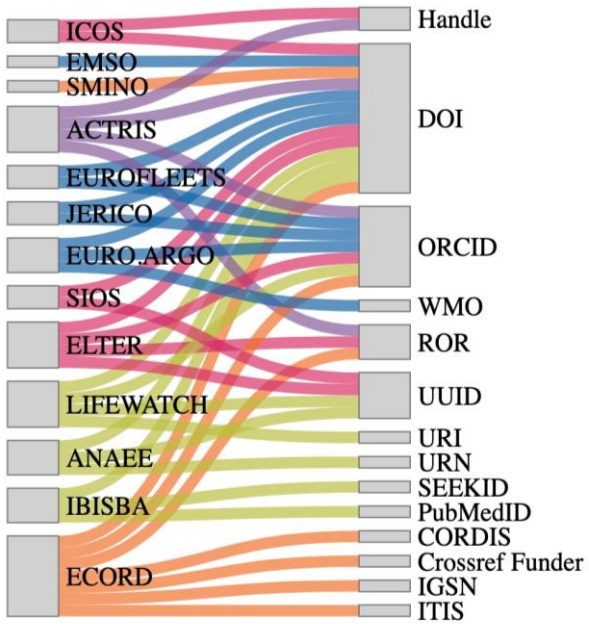
4. One-to-one interviews (June-July 2023)

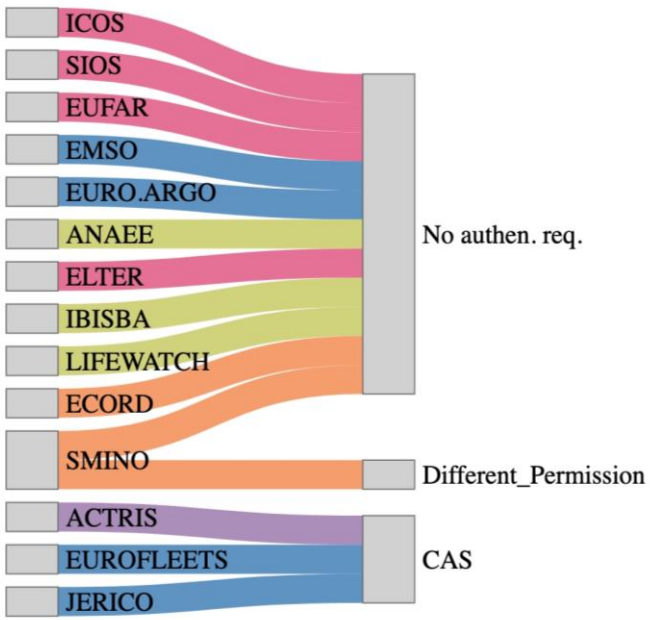
   - State of the art of FAIR-enabling best practices (October 2023)
   - FIP & FAIR convergence analysis (May 2024)

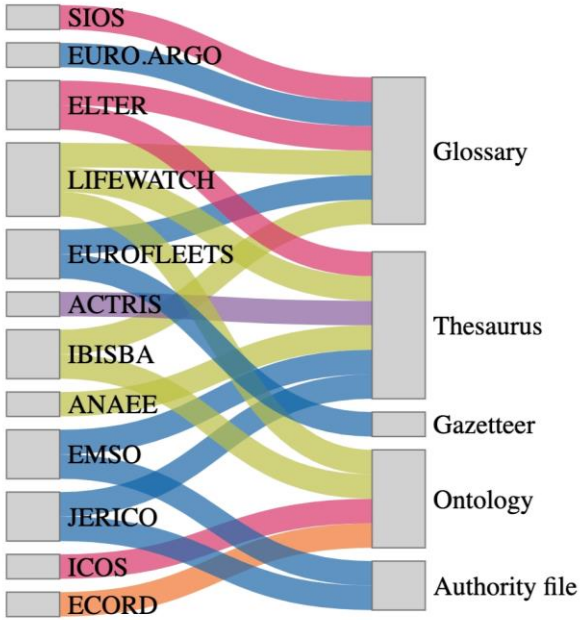
Results: State of the art

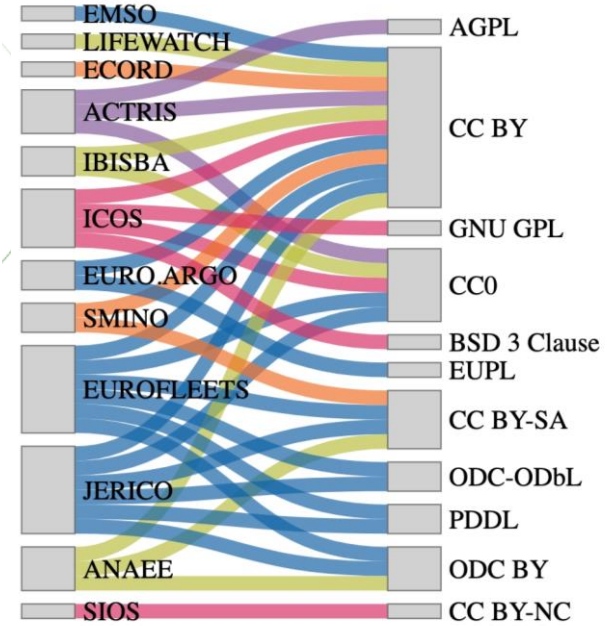
An example of practices adopted for each principle is given.











Results: FAIR Implementation Profile (FIP) & convergence analysis

A FIP is a formal list of FAIR implementation choices declared by a specific community to fulfil one or more FAIR subprinciples.

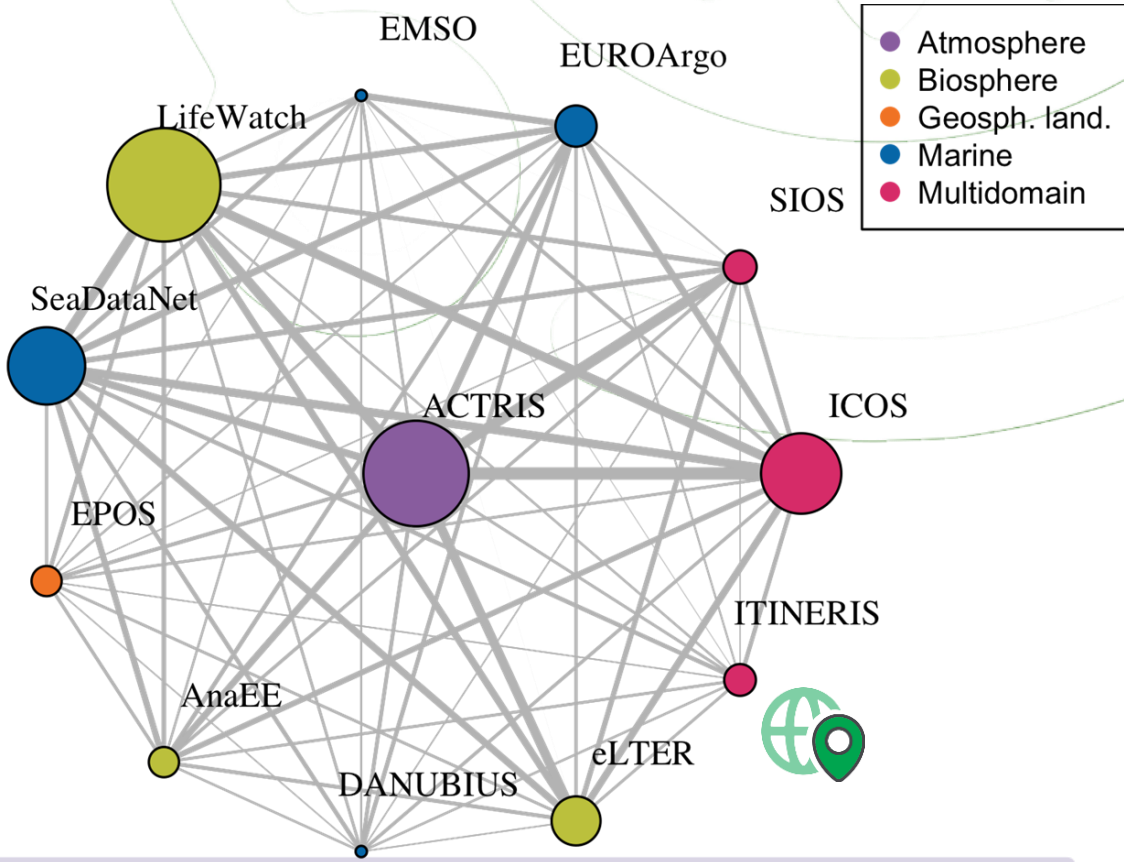
FIP Wizard

- A first version of the **ITINERIS Data Hub** FIP
- The potential alignment between the FAIR-enabling practices of the **ITINERIS Data Hub** and other RIs, within and outside ITINERIS

HOWEVER

- The available FIPs of the different RIs could not be up-to-date with the most recent implementations
- The FIP of ITINERIS Data Hub is "planned to use"

FIP Ontology, https://w3id.org/fair/fip/

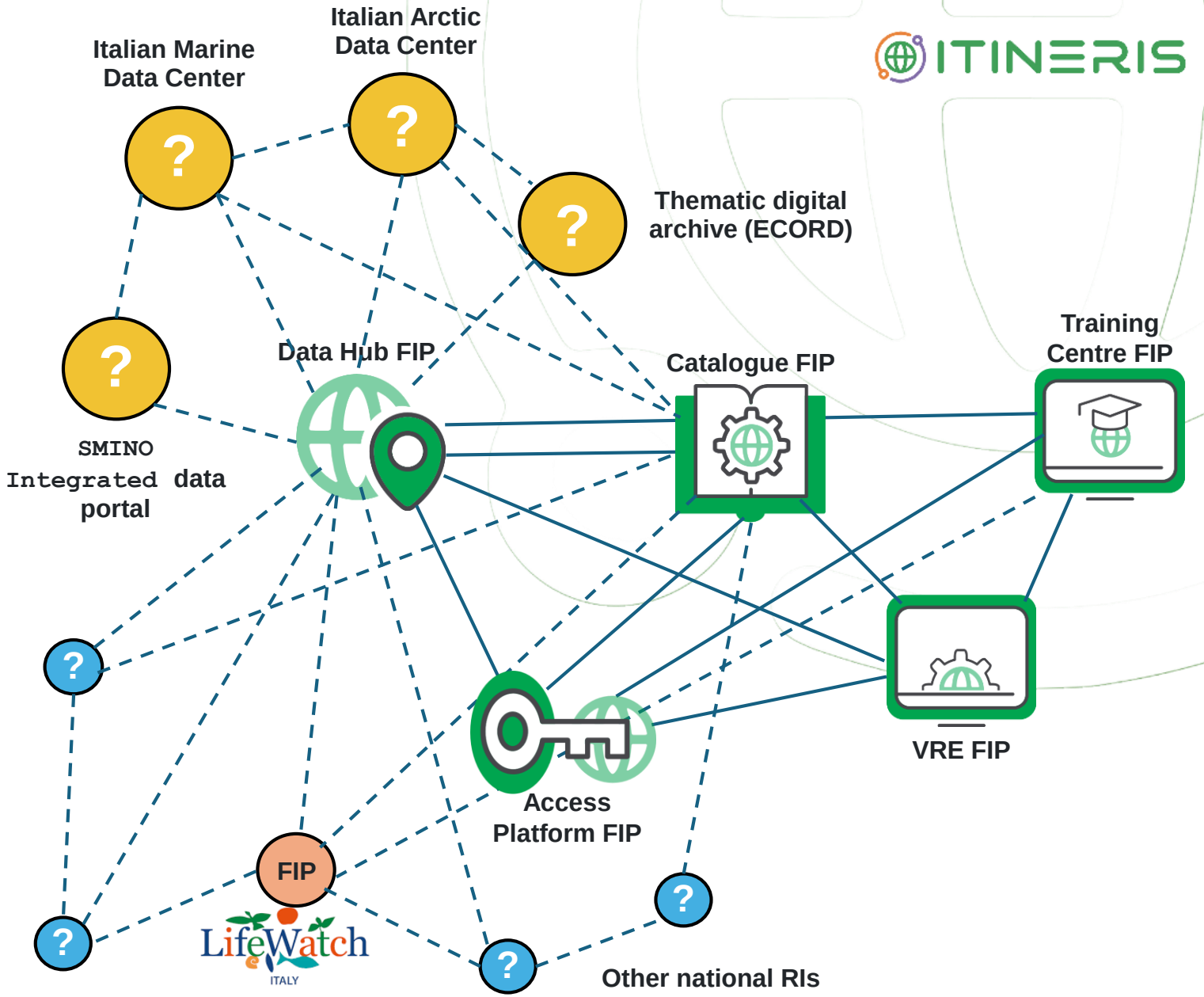


Next steps

The future work will consist of:

- Producing new or updated FIPs for the **various components of the ITINERIS HUB**
- Extending this practice to other **national RIs** or **information management systems** developed in ITINERIS

To provide a detailed and rigorous description of the FAIR-enabling practices adopted by different nodes and their level of FAIR convergence and connectivity.



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