WP2
Access to Facilities, FAIR Data and related Services

Carmela Cornacchia and Ilaria Rosati

CNR

carmela.cornacchia@cnr.it

Ilaria.rosati@cnr.it

ITINERIS
Italian Integrated Environmental Research Infrastructures System

WP2 Keywords: Access and FAIRness

Access to Research Infrastructures

The legitimate and authorised physical, remote and virtual admission to, interactions with and use of Research Infrastructures and to services offered by Research Infrastructures to users. Article 3 (c) of the European Charter for Access to Research Infrastructures

EU Charter promotes **Access to Research Infrastructures in order to conduct innovative research and development, to improve the related methods and skills in the workforce and to foster collaboration.**
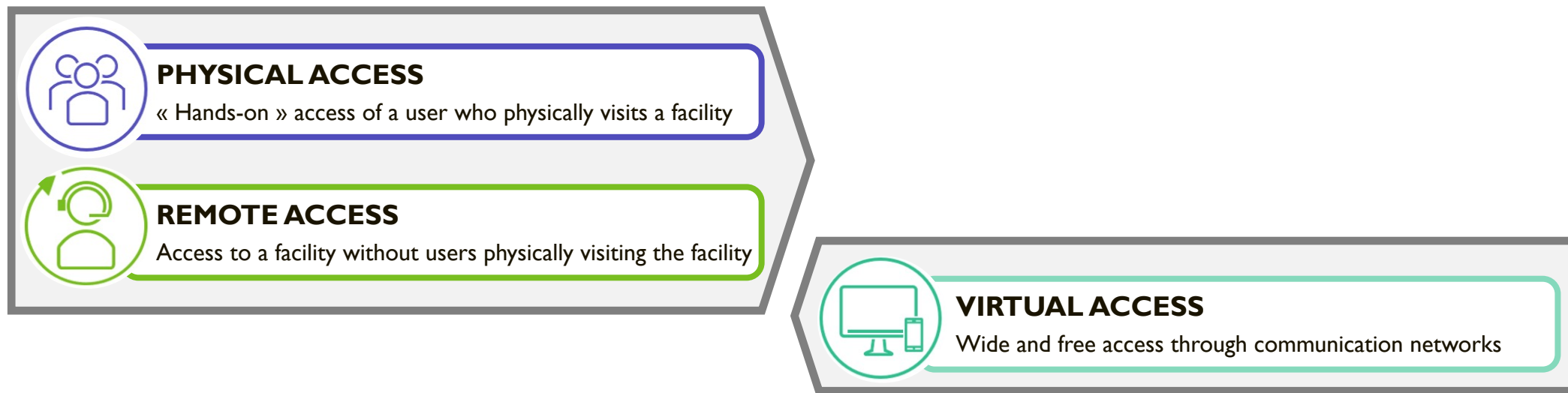
This Charter moreover promotes interaction with a wide range of social and economic activities, including, as appropriate, business, industry and public services, in order to maximise the return on investment in RI and **to drive innovation, competitiveness and efficiency in terms of use of the scarce resources available.**

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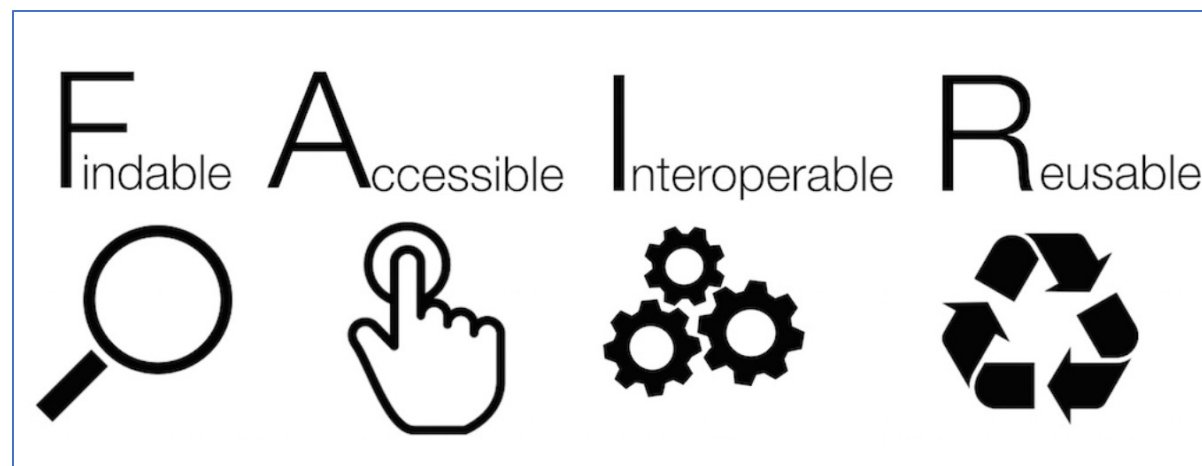delle Ricerche

WP2 Keywords: Access and FAIRness

Access to Research Infrastructures

The legitimate and authorised physical, remote and virtual admission to, interactions with and use of Research Infrastructures and to services offered by Research Infrastructures to users.

Article 3 (c) of the European Charter for Access to Research Infrastructures

PHYSICAL ACCESS
« Hands-on » access of a user who physically visits a facility

REMOTE ACCESS
Access to a facility without users physically visiting the facility

VIRTUAL ACCESS
Wide and free access through communication networks

WP2 Keywords: Access and FAIRness

The **FAIR principles** are intended as a guide, not a standard, to enable digital resources to become more Findable, Accessible, Interoperable and Reusable for **machines** and thus also for **humans**.

The **FAIR principles** have been widely adopted by a broad range of stakeholders (e.g. RIs) who have implemented their own **FAIR solutions**.

However to reach the goal of fully **interoperability**, we need to support convergence towards accessible, robust, widespread and consistent FAIR implementations.

Strong involvement in the EU context

"A functioning EOSC can only emerge from a coordinated effort of H2020, Horizon Europe, national and institutional activities."
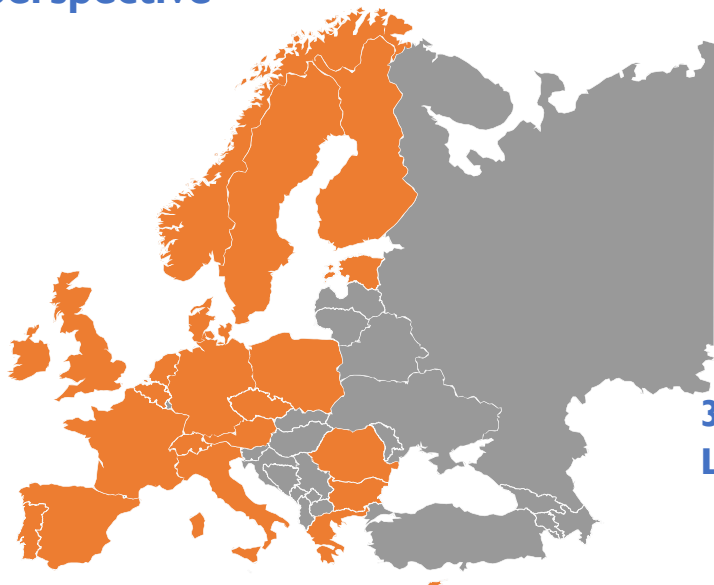*EOSC Multi-Annual Roadmap 2023-24*

«The overall impact is a **pan-European research landscape** that offers significantly improved discovery, access, interoperability and exploitation of research outputs and facilities for researchers and for research and innovation stakeholders»

EU H2020 Pilot project for improving ACCESS to EU RI

ATMO ACCESS
Access to Atmospheric Research Facilities

Solutions for Sustainable Access to Atmospheric Research Facilities in Europe in a long-term perspective

ACTRIS

ICOS Integrated Carbon Observation System

IAGOS IN-SERVICE AIRCRAFT FOR A GLOBAL OBSERVING SYSTEM

3 Atmospheric ESFRI Landmarks

* Open **physical, remote and virtual access** for users to >50 state-of-the-art facilities and services in atmospheric distributed Research Infrastructures in Europe.

* **Enhancing the spectrum of products, capabilities and accessibility** for a wide range of users and further advancing the available services.

* **Exploring and testing new modalities of access – flexible, innovative, tailored.** Building on the complementarity and synergies among atmospheric RIs and responding to evolving needs of users in relation to training, research and technology development, innovation and data services.

* Developing **guidelines and recommendations** for governance, management and funding for efficient and effective access provision

* Identifying the **most suitable conditions for establishing sustainable access procedures** across the EU for distributed atmospheric Ris.

WP2: Objectives

The objective of the ITINERIS project is the core objective of WP2 to establish the Italian Hub of Research Infrastructures in the environmental scientific domain. WP2 will facilitate access to data and services of ITINERIS.

Most of the 22 RIs participating in ITINERIS already offer data and services (technical, research, innovation up to close-to-market) from and across different domains of the Earth system.

WP2 builds upon this current effort to improve Access management and FAIRness, developing the conditions for harmonizing standards, metadata and policies amongst the different RIs.

RIs are very diverse and on different levels of maturity, facing similar challenges in their operations in regard to FAIR compliance and Access management.

WP2: Participants in the WP
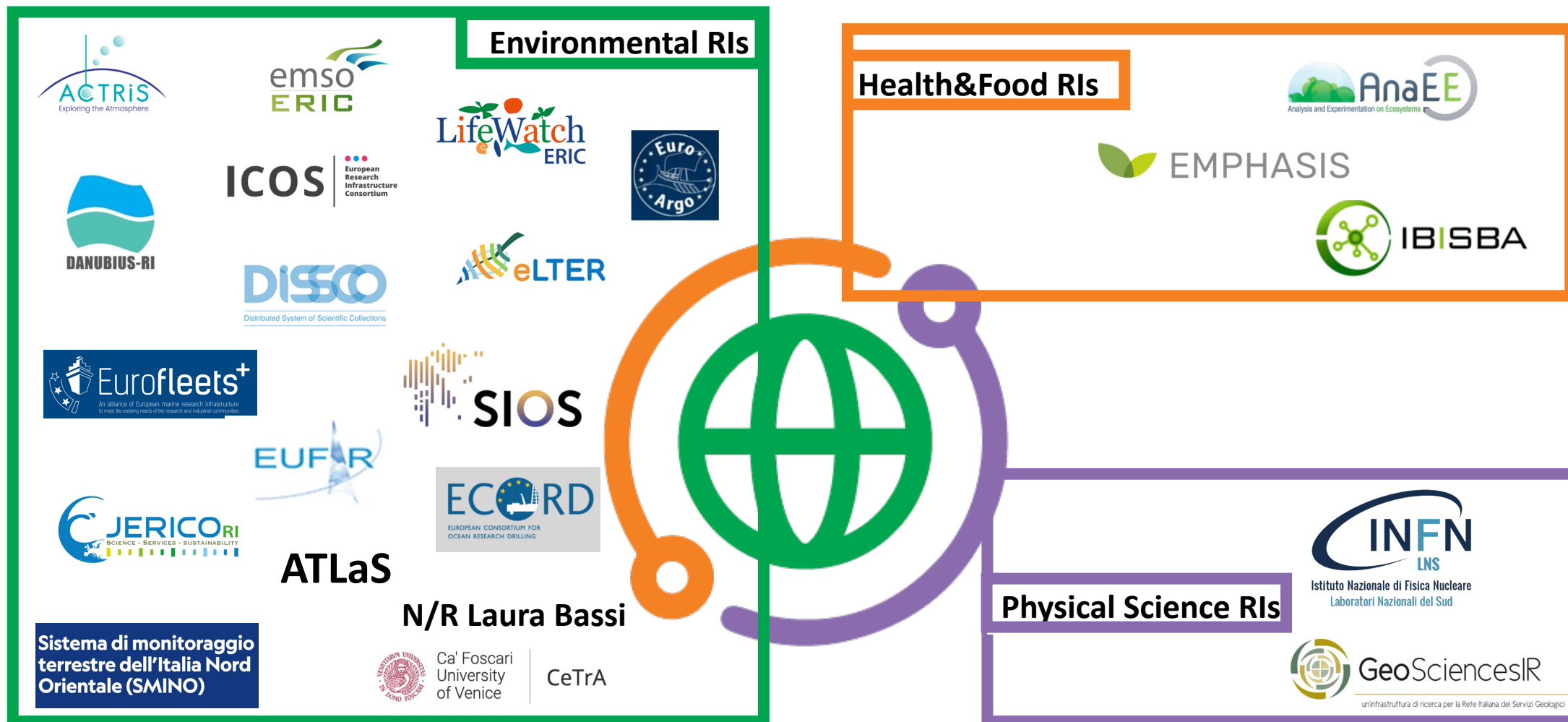
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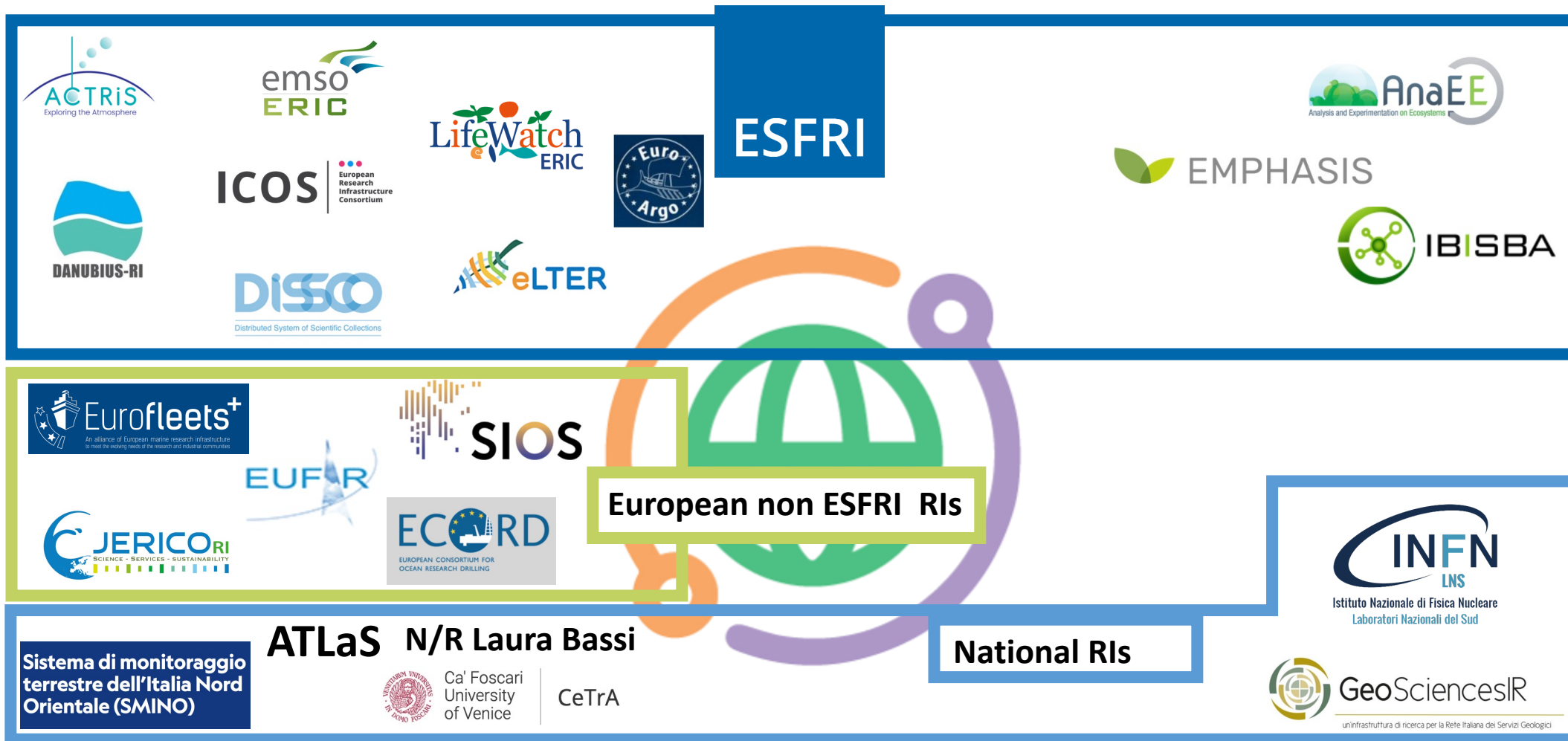- CNR-IRET-Lecce

Research Infrastrutture Board

Working Groups

FAIRNESS

ACCESS

WP2: RIs Participants in the WP

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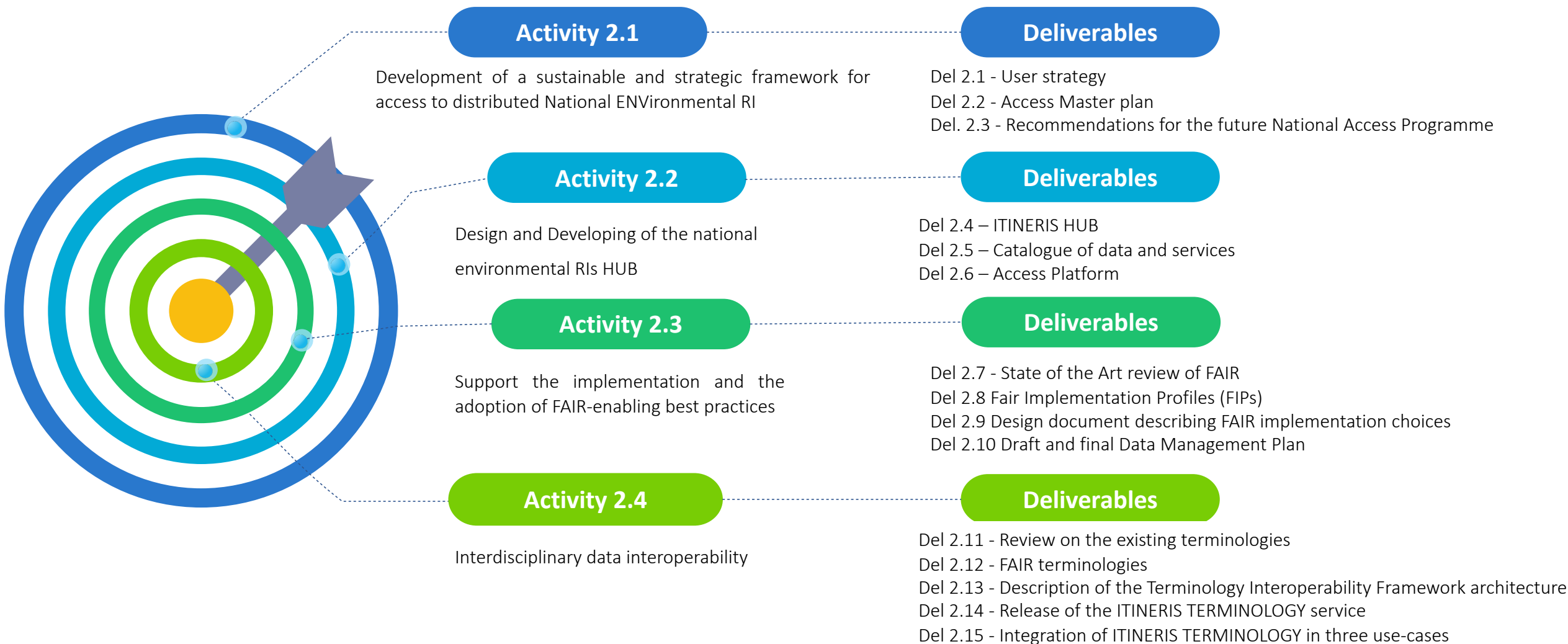
WP2: Summary of the activities

FINAL GOAL:

WP2 aims to **identify, design and implement** *methodologies, protocols, standards and technological resources* to favor the access to multidisciplinary services and data which will enable all national environmental RIs to improve their existing work and will represent a strong step forward for the less mature communities by accessing consolidated best-practices.

SPECIFIC Objectives

❑ **Networking and harmonisation of National Environmental RIs to build a community** (also online) around a central HUB enabling access to the environmental data of distributed national RIs, which share resources and management practices, and work to enhance cross-disciplinary interoperability.

❑ **Definition of a common framework for Access Provision and implementation of a single-entry point** to the whole national network of environmental RIs and to their facilities, resources and knowledge to reinforce the national contribution to scientific excellence in Europe.

❑ **Encourage the application of FAIR principles** to support the advancing cross-disciplinary Research through environmental domains.

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

WP2: Most relevant expected outcomes

ITINERIS will enhance interdisciplinary Research and Innovation capacities addressing environmental societal challenges (i.e. climate related-risks on the environment).
WP2 will provide a common framework for the access to facilities, data and related services from 22 RIs through:

A central HUB running as integrated access and service portal

A National Access Framework

Enabled Access to facilities, FAIR data and related services

Recommendations and technical solutions for adopting and improving FAIR practices

A new service to enhance data interoperability

WP2: Inter-relation with other WPs

WP2 is linked to all WPs:

❑ WP3 for training activities, for improving competences of new researchers on FAIRness and Access

   Management

❑ WP4 – WP5 – WP6 – WP7, for improving data FAIRness and RIs accessiblility

❑ WP8 for making new ITINERIS data and services available and accessible through the HUB