AgroServ
Integrated SERvices supporting a sustainable AGROecological transition

Funded by the European Union

LifeWatch ERIC

the e-Science European Infrastructure for Biodiversity & Ecosystem Research

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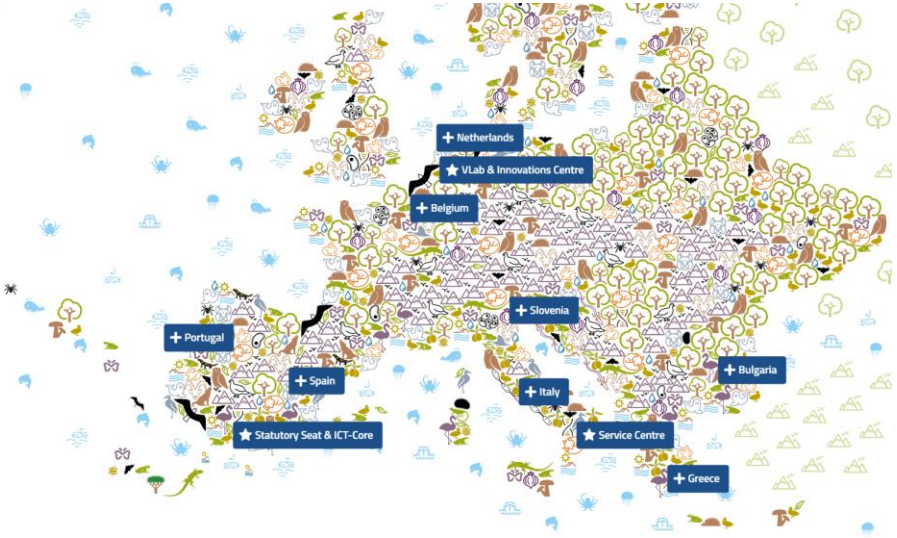
Jornada informativa sobre Infraestructuras de Investigación en Horizonte Europa

_LifeWatch ERIC in a nutshell

LifeWatch ERIC

e-Infrastructure for Biodiversity and Ecosystem Research

LifeWatch ERIC is a **European Research Infrastructure Consortium** that provides **digital tools to researchers, policy-makers, companies and citizens** in order to address **major environmental challenges** and **support strategic knowledge-based solutions**, based on the study of **biodiversity and ecosystems**, for the preservation **of life and the environment**



EcoPortal

LifeWatch ERIC Metadata Catalogue

LifeWatch ERIC Tesseract

LifeBlock

> 1500 Datasets

>115 Services

12 VREs

5 Workflows

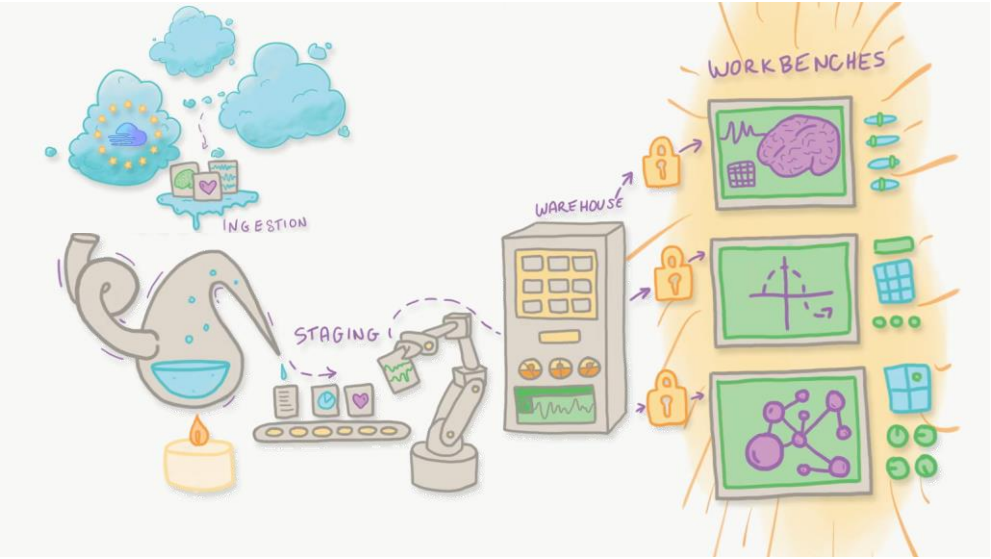
32 Training resources

11 Research sites

AgroServ Integrated SERVices supporting a sustainable AGROecological transition

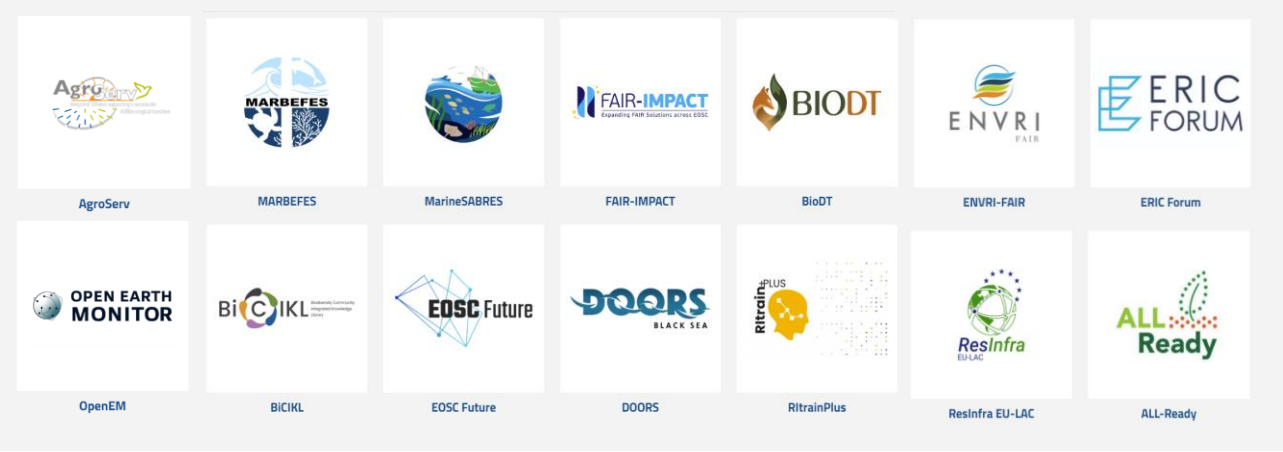
What we provide | VREs

A **Virtual Research Environment** is a **web-based workspace** providing seamless access to all services a **data-user needs** to do **data-related work** and **collaborate** with the community to create **new knowledge.** A VRE facilitates **working with data** in a more efficient way and **improve collaboration** between different users (LLs, RIs, end-users, policy-makers, citizens, etc.).



Charité 2020

LifeWatch ERIC & H2020-HE



… &

Path2DEA

Marco-Bolo

Permagov

_AgroServ: Integrated Services supporting a sustainable agroecological transition

The project

- **Project type – EU HORIZON 2020 Project**
- **Coordinated by AnaEE**
- **Partners – 73 Consortium Partners (organized in 11 major Partners)**
- **Duration – Start date 1st September 2022**

  End date 1st September 2027
- **Overall EU contribution EUR: € 15,224,370**

  € 946,166 (LifeWatch ERIC)

AgroServ - objective

OBJECTIVE: Building a sustainable offer of services (delivering wide, customized and integrated access to facilities, agroecological data and modelling scenarios through a common portal) to:

1. **Provide access to innovative, customized and efficient services**
2. **Develop higher levels of integration of multi-RI services**
3. **Provide data and modelling services relevant for human, plants and animal health**
4. **Ensure outreach and training of the community of stakeholders**
5. **Ensure RI services, practices and products sustainability.**

What is TNA/VA in AgroServ?

AgroServ provides a wide offer of state of the art **services with focus on sustainable and resilient agriculture and agroecological transition** covering different scales across the agricultural value chain from the molecular to the ecosystem to the regional level and society

This includes **access to services** such as virtual and experimental tools and installations addressing basic and applied research on crops, animal, soil, food and human health, etc

Users can among others use services and facilities **to address diverse research questions** to simulate current and future climatic conditions, enable testing new management practices, crops, and their performance under these changing conditions. Specifically, **cross-disciplinary** user groups are strongly encouraged and supported within AgroServ

What is TNA/VA in AgroServ?

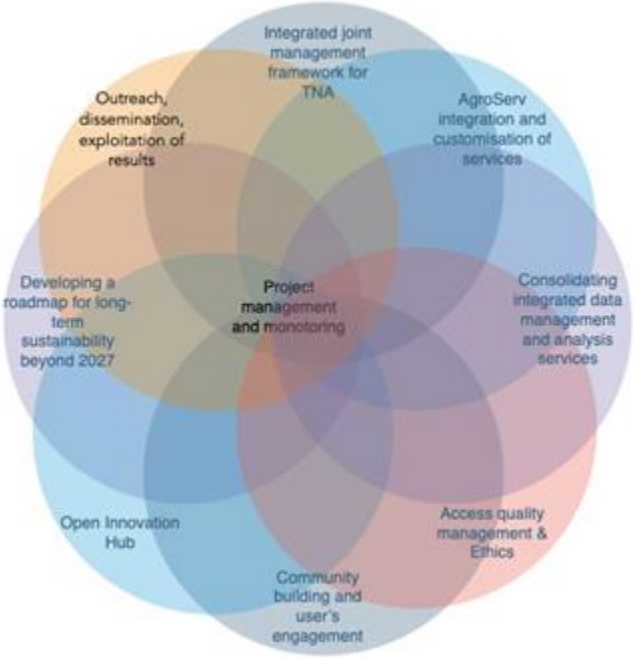
Characteristics:

- Free of charge and includes the logistical, technological and scientific support needed to use the services provided by the research facilities.
- Aim at answering basic and applied questions related to sustainable and resilient agriculture and agro-ecological transition
- Address cross-disciplinary topics related to agroecology and implement particularly multiple services listed in the catalog of services
- The Transitional Access can happen:
  - In person (physical access): with users physically visiting the facility/installation and receiving the service "hands-on"
  - Remotely (remote access): with resources and services offered without users physically visiting the facility/installation
  - Virtually: through communication networks in which resources can be simultaneously accessed by an unlimited number of users

Challenges

- **Challenge 1: Knowing, building, and training the scientific community**
- **Challenge 2: Effective transdisciplinary practice**
- **Challenge 3: Flexibility and adaptability of our offer of services**
- **Challenge 4: many ethical problems mixed**
- **Challenge 5: ensuring high quality services and science in a new field (including reward for the community)**
- **Challenge 6: ensuring high impact on the society**
- **Challenge 7: ensuring sustainability of the services beyond 2027**
- **Challenge 8: Ensuring smooth exchanges between the set of related initiatives in HE and beyond**
- **Challenge 9: Inherent complexity of the project, of the field, of the collaboration**

WPs



Work Package Structure

- WP1 Development of a user portal (to all RI services)
- WP2 Catalogue of products: Description of platforms, services & resources
- WP3 Data integration & management (best practices)
- WP4 Quality management & ethics
- WP5 Build a community of researchers & stakeholders on Agroecology
- WP6 Space of interaction to create, validate implement services in "real-life settings"
- WP7 Sustainability & dissemination strategy
- WP8 Communication strategy - bridge science with policy objective
- WP9 Project coordination & Data management plan

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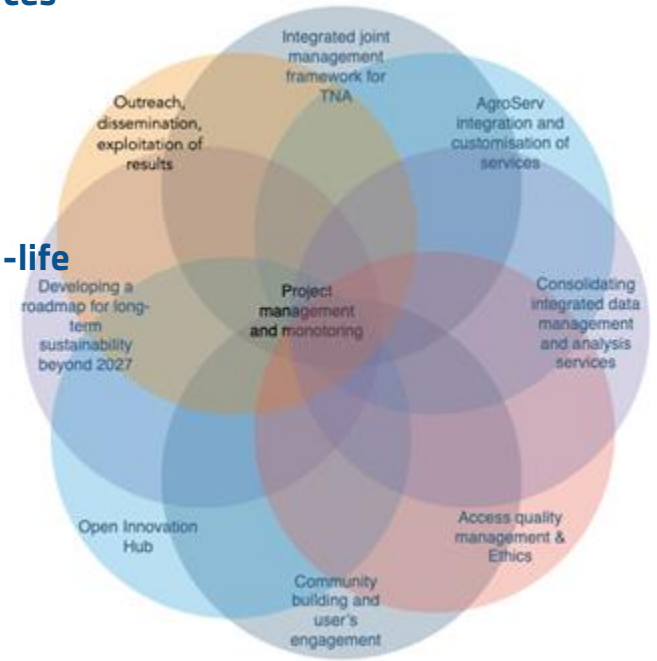
- WP10-WP20 WP for the delivery of serivces

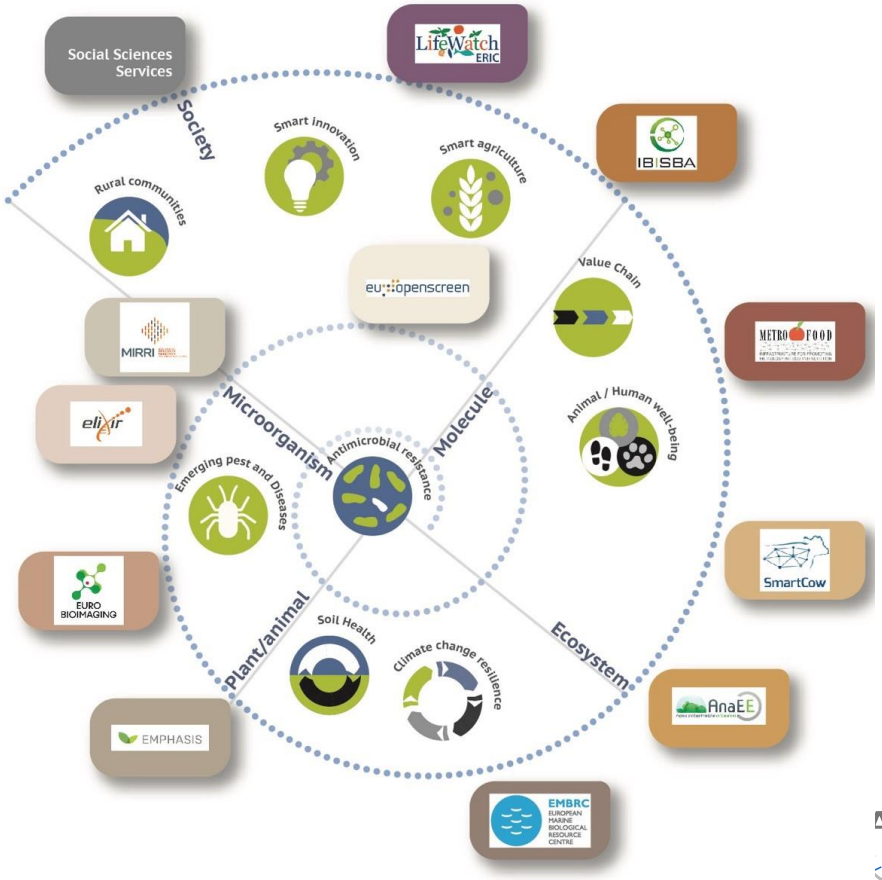
WPs



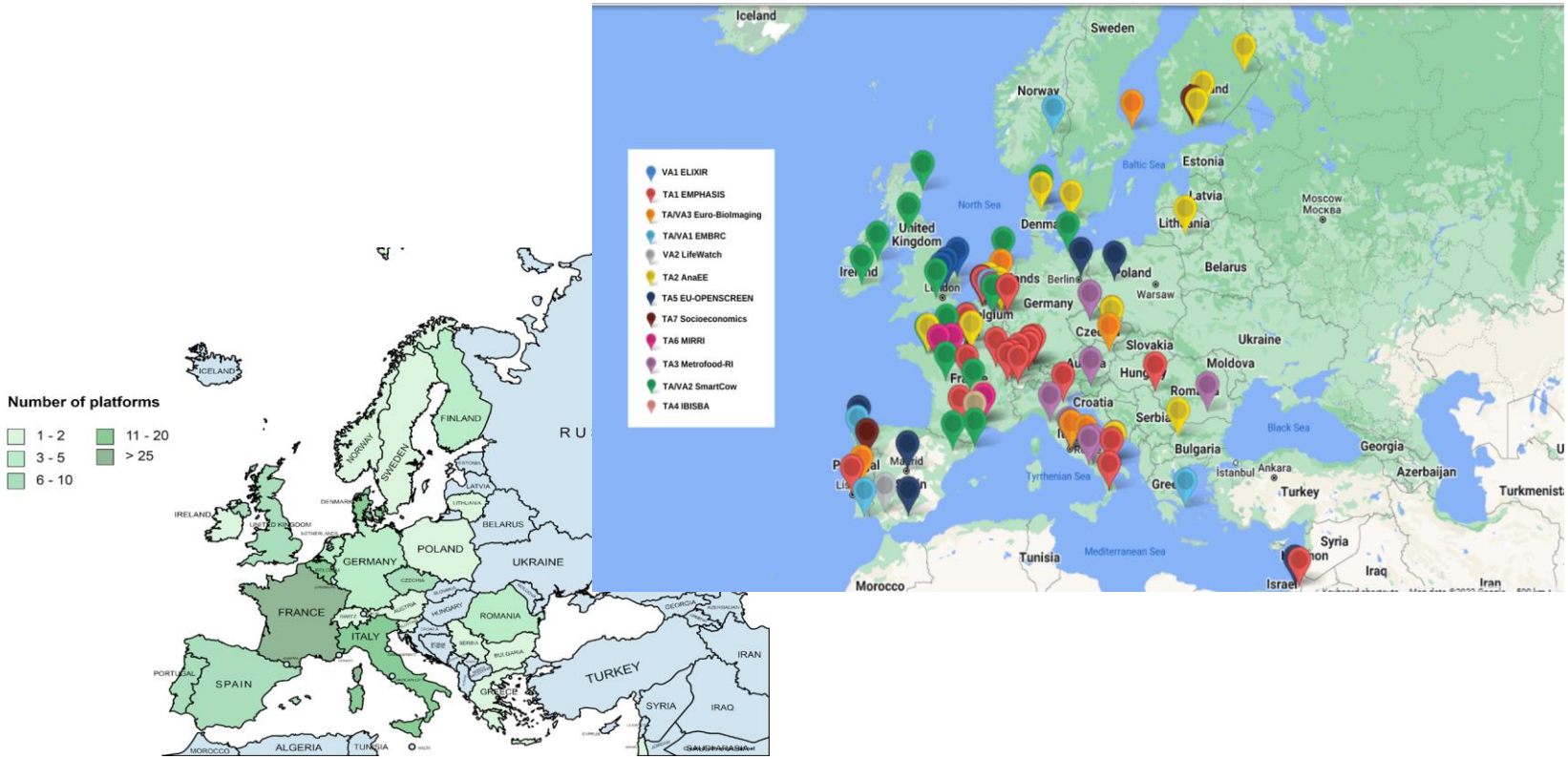
Complexity

11 RIs join efforts

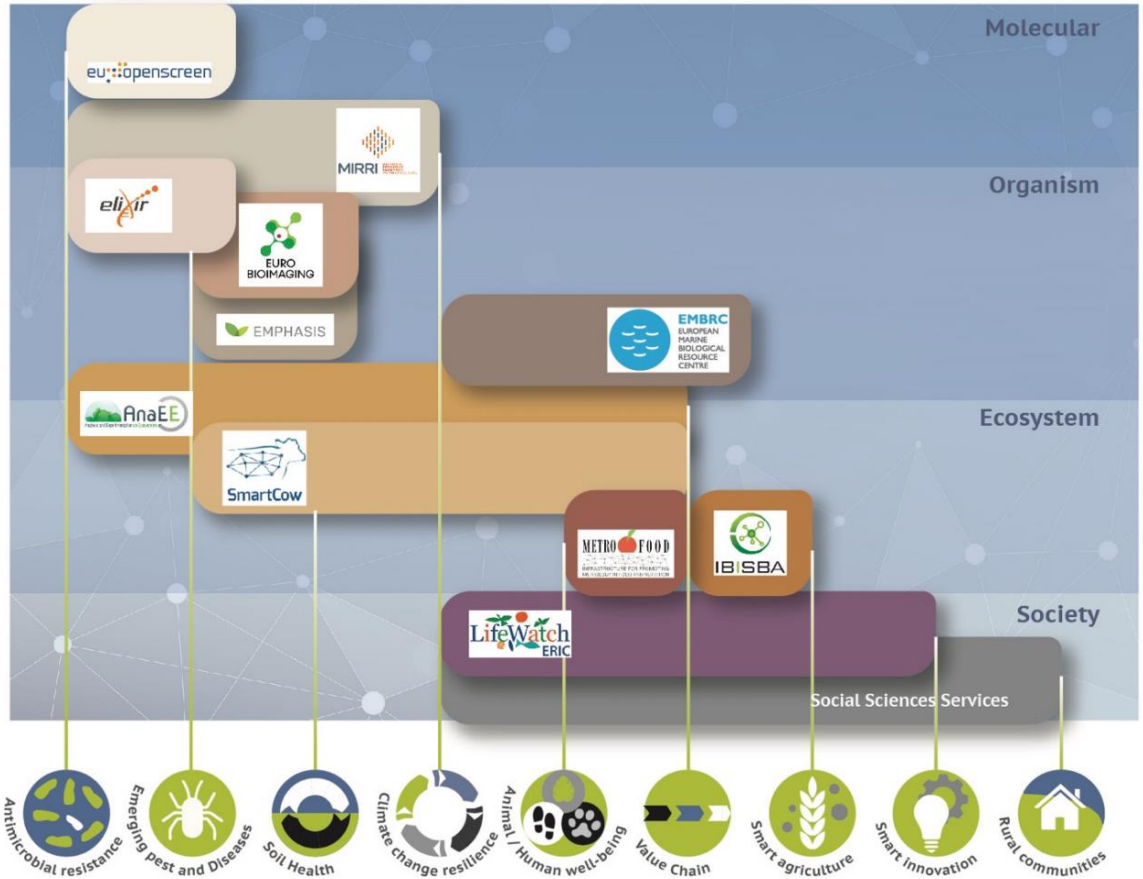
- All scales
- From molecule to ecosystems to society
- 70++ partner institutions
- 143 services offered
- This diversity is a source of wealth... and a challenge



AgroServ services are covering most of EU++



At different scales

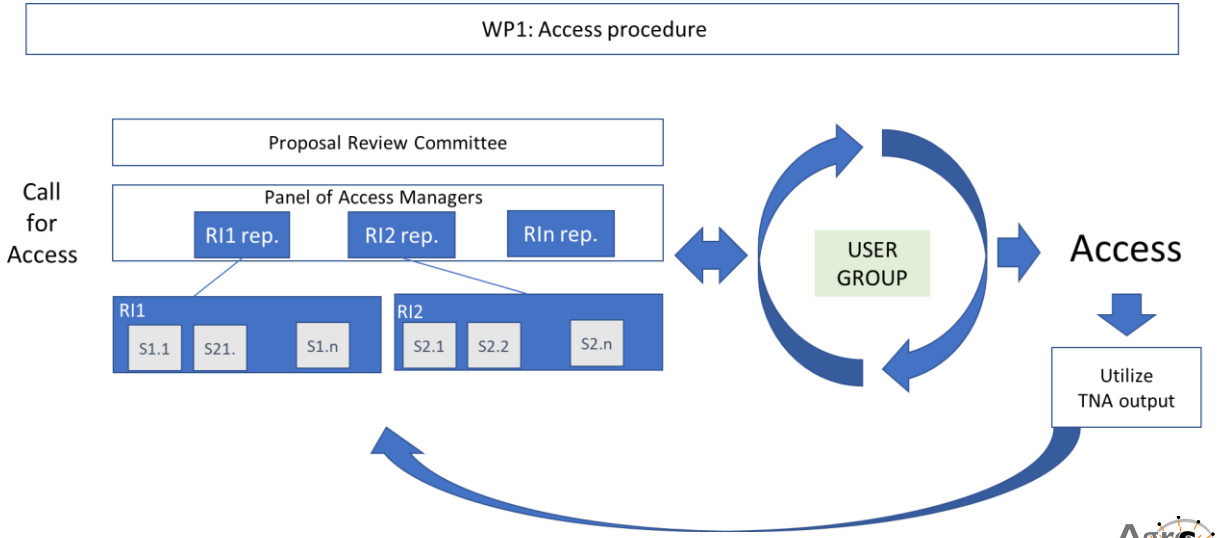


Foreseen challenges for project implementation

- One year to prepare the first call
  - Readiness of services
  - Readiness of catalogue
  - Explore interactions, interoperability
  - Prepare data delivery
  - Themes and/or challenges addressed for the call
    - From the scientific community
    - Challenge oriented (society)
  - Ethical aspects
  - Prepare evaluation of proposals
  - Engage with, and train the community
  - LL approach and interaction with the society

The access procedure…

2 steps procedure: pre-proposal & full proposal



And what we do as RI

What we do?

WP5 – Building a community of users on Agroecology & developing an engagement plan

Stakeholders mapping(Community of users) → Clustering with other relevant initiatives & projects → Joint training services

WP7 – Developing a roadmap for long-term sustainability beyond 2027

Ensure service efficiency → Governance & funding sustainability → Long-term partnership

WP20 – Implementing integrated and customized portfolio of services

Virtual Research Environments (VRE) for Agroecology

- Generation of Virtual Spaces for collaboration and networking
- Gathering, processing and integration of datasets
- Development of decision making modeling and simulation tools
- Ecosystem services tokenization

AgroServ | WP 20 LifeWatch ERIC

Objectives

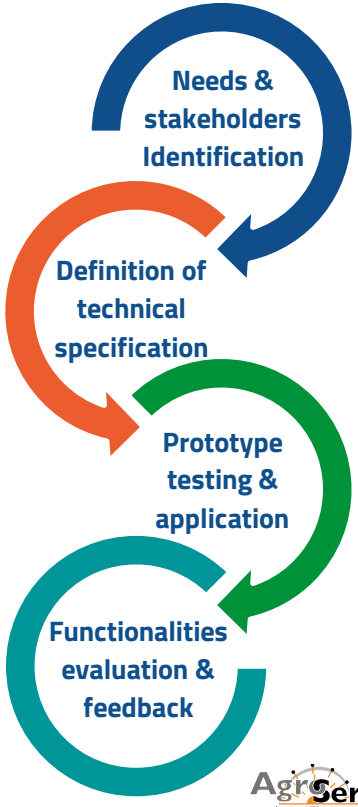
- Promote innovation by improving the problem-solving capacities of users community
- Boost transition towards sustainable agroecological systems

Activities

- Generation of Virtual Spaces for collaboration and networking
- Gathering, processing and integration of datasets
- Provision of analytic tools e.g. GIS, Big Data, Artificial intelligence, Machine learning
- Development of decision making modeling and simulation tools
- Tokenization of Ecosystem Services

Outcome

- Foster opportunities for large-scale scientific development
- Support knowledge-base decision making to mainstream agroecology uptake
- Virtual Research Environment – Agroecology



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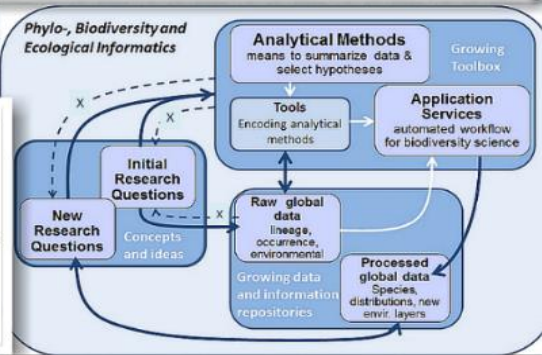

¡Gracias!

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