

# International Forum on Agroecosystem Living Labs

## Theme 1 Promoting innovation through living labs

---

### Agroecology Virtual Research Environment as an example of collaboration between Living Labs and Research Infrastructures to foster agroecology transition

---

José M. Avila & Iria Soto

LifeWatch ERIC

---

Adaptation Futures 2023 acknowledges that the conference is taking place in Tiohtià:ke/Montréal on unceded Indigenous lands. The Kanien'kehá:ka Nation is recognized as the custodian of the lands and waters where members of the global community on climate change adaptation gather today.

Adaptation Futures 2023 reconnaît que la conférence se déroule à Tiohtià:ke/Montréal sur des terres autochtones non cédées. La Nation Kanien'kehá:ka est reconnue comme gardienne des terres et des eaux où les membres de la communauté mondiale de l'adaptation aux changements climatiques sont réunis aujourd'hui.

#AdaptFutures23

# LifeWatch ERIC

*e-Infrastructure for Biodiversity and Ecosystem Research*

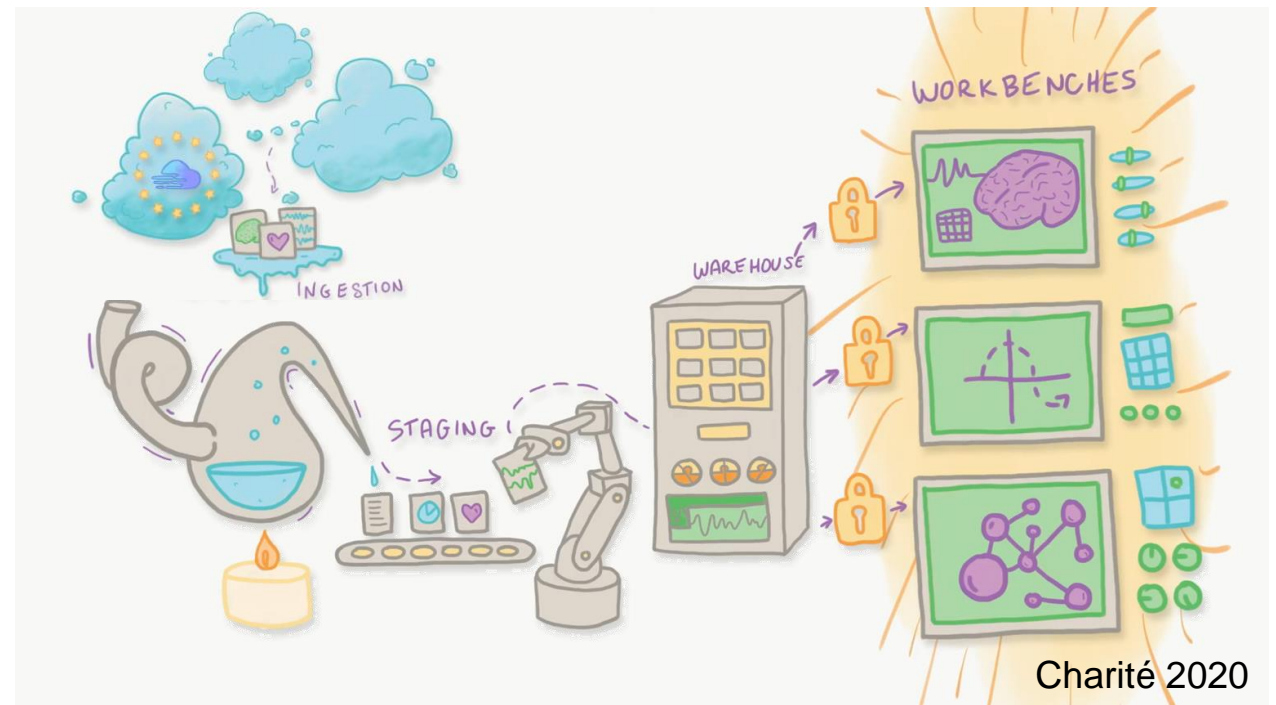


LifeWatch ERIC is a **European Research Infrastructure Consortium** that provides **digital tools to researchers, policy-makers, companies and citizens** in order to address **major environmental challenges** and **support strategic knowledge-based solutions**, based on the study of **biodiversity and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

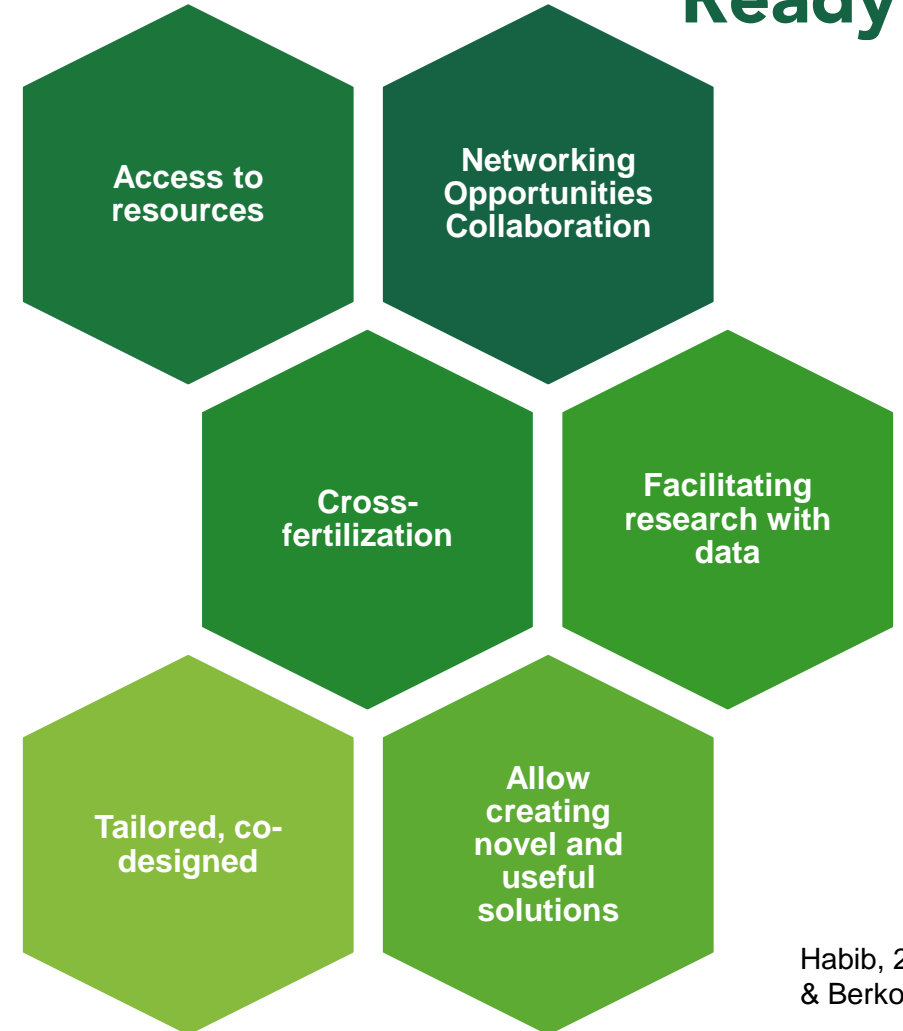


# Virtual Research Environment

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 **improves collaboration** between different users (LLs, RIs, end-users, policy-makers, citizens, etc.).



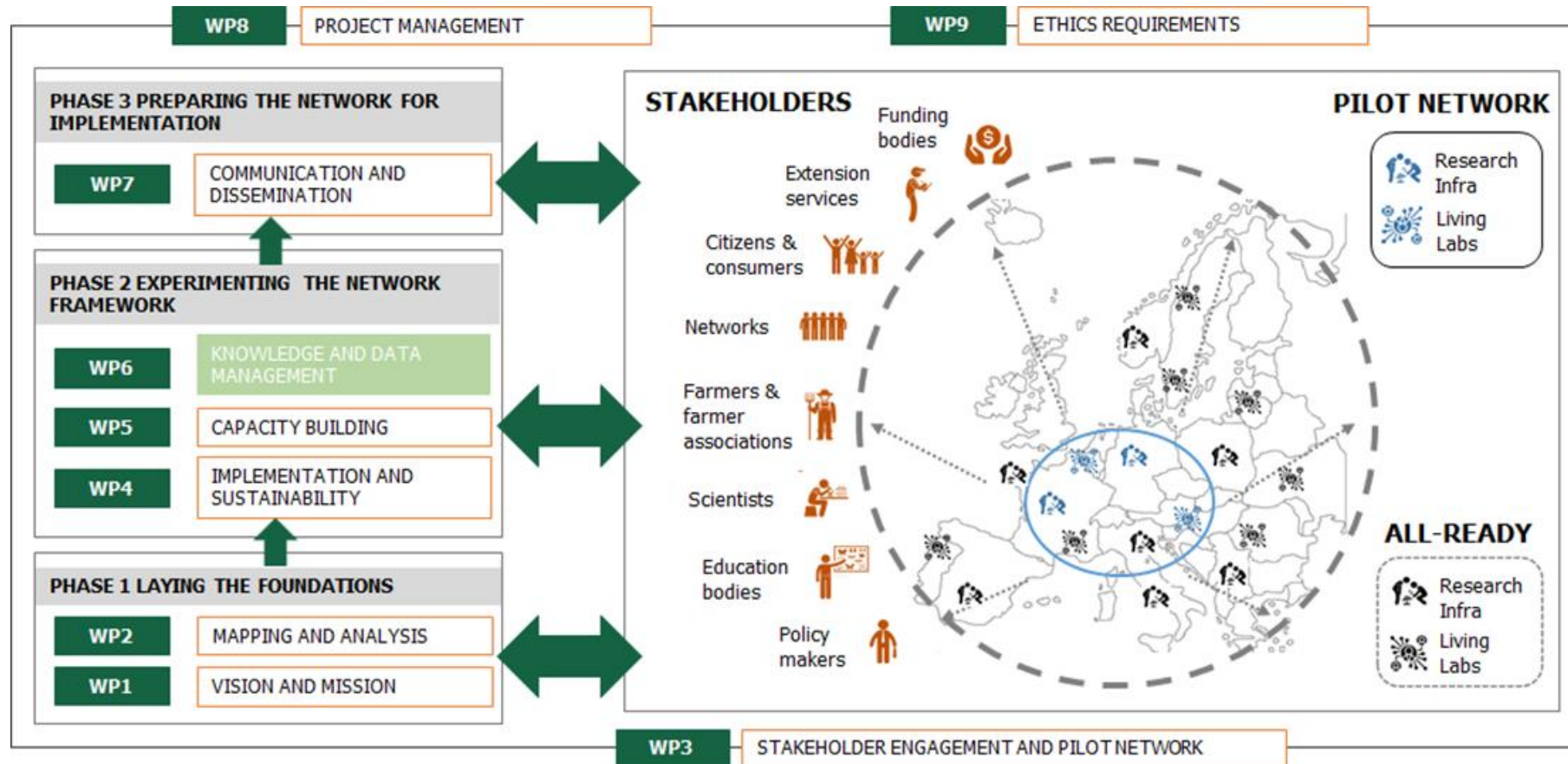
# Virtual Research Environment to enhance collaboration



Habib, 2015; Baran & Berkowicz, 2021



# ALL-READY: A European Project preparing the Partnership on Agroecology Living Labs and Research Infrastructures



# A Virtual Research Environment for Agroecology



## Using a co-design methodology

- **Identification of LLs and RIs needs** that can be covered by the Agroecology VRE
- **Definition and prioritisation of functionalities** for the first version of the Agroecology VRE
- Contribution to the **validation and evaluation** of the Agroecology VRE
- Provision of **feedback** and contribution to a revised version



# A Virtual Research Environment for Agroecology

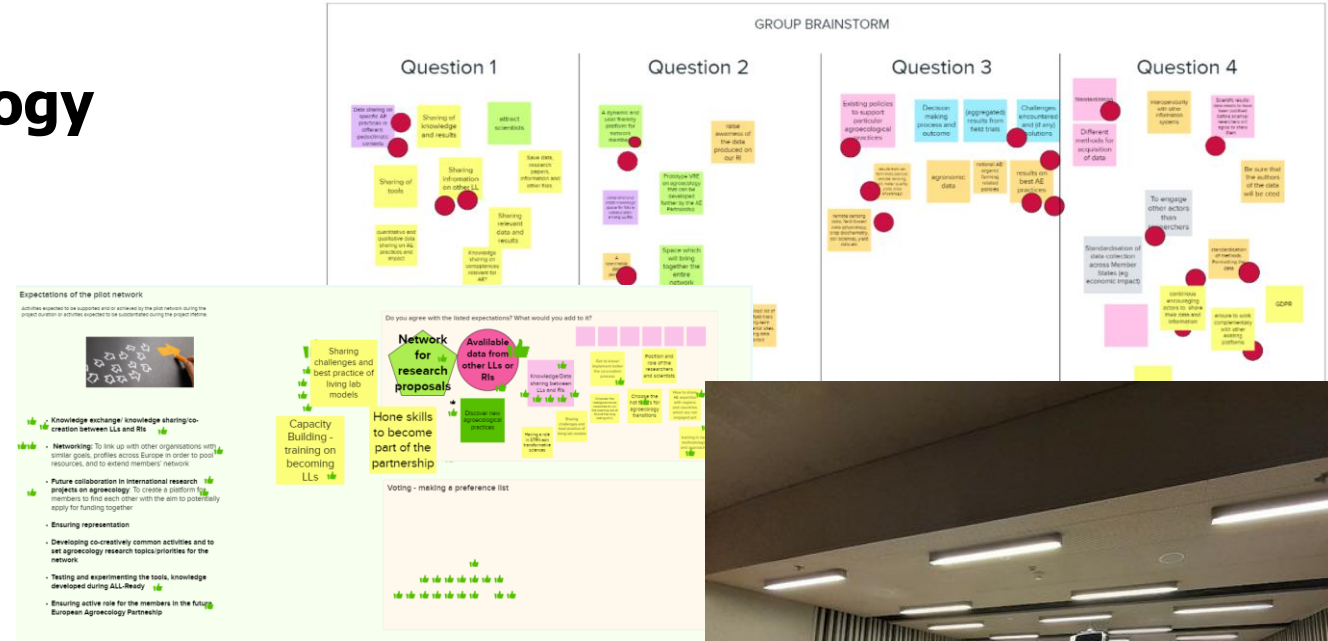


## Using a co-design methodology

➤ **Online sessions**

➤ **Face-to-face trainings**

➤ **Update meetings**

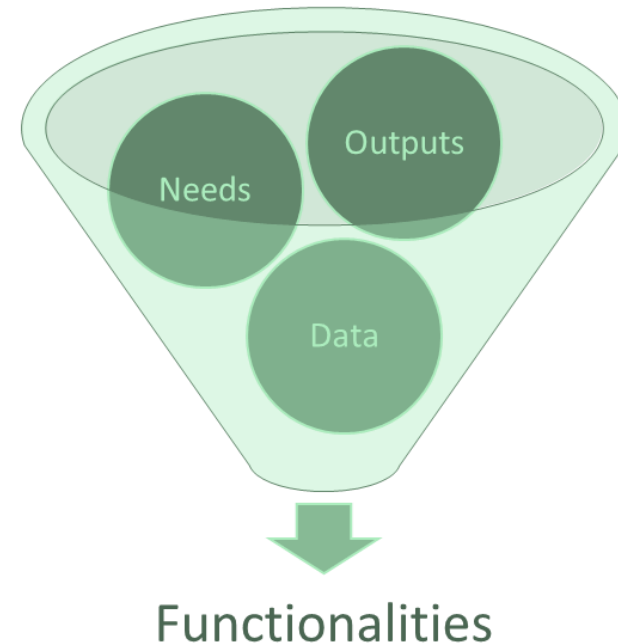


# A Virtual Research Environment for Agroecology



## Proposed functionalities

- **Collaboration**
- **Networking**
- **Sharing knowledge**
- **Communication**





# A Virtual Research Environment for Agroecology



## Dashboard

A place to provide tips for using the platform, use cases, educational tips for collaboration, innovation, entrepreneurship and agroecology tips.

This page includes the tips and guide to use the platform, community events, collaboration status, messaging chat messages, matches and new members.

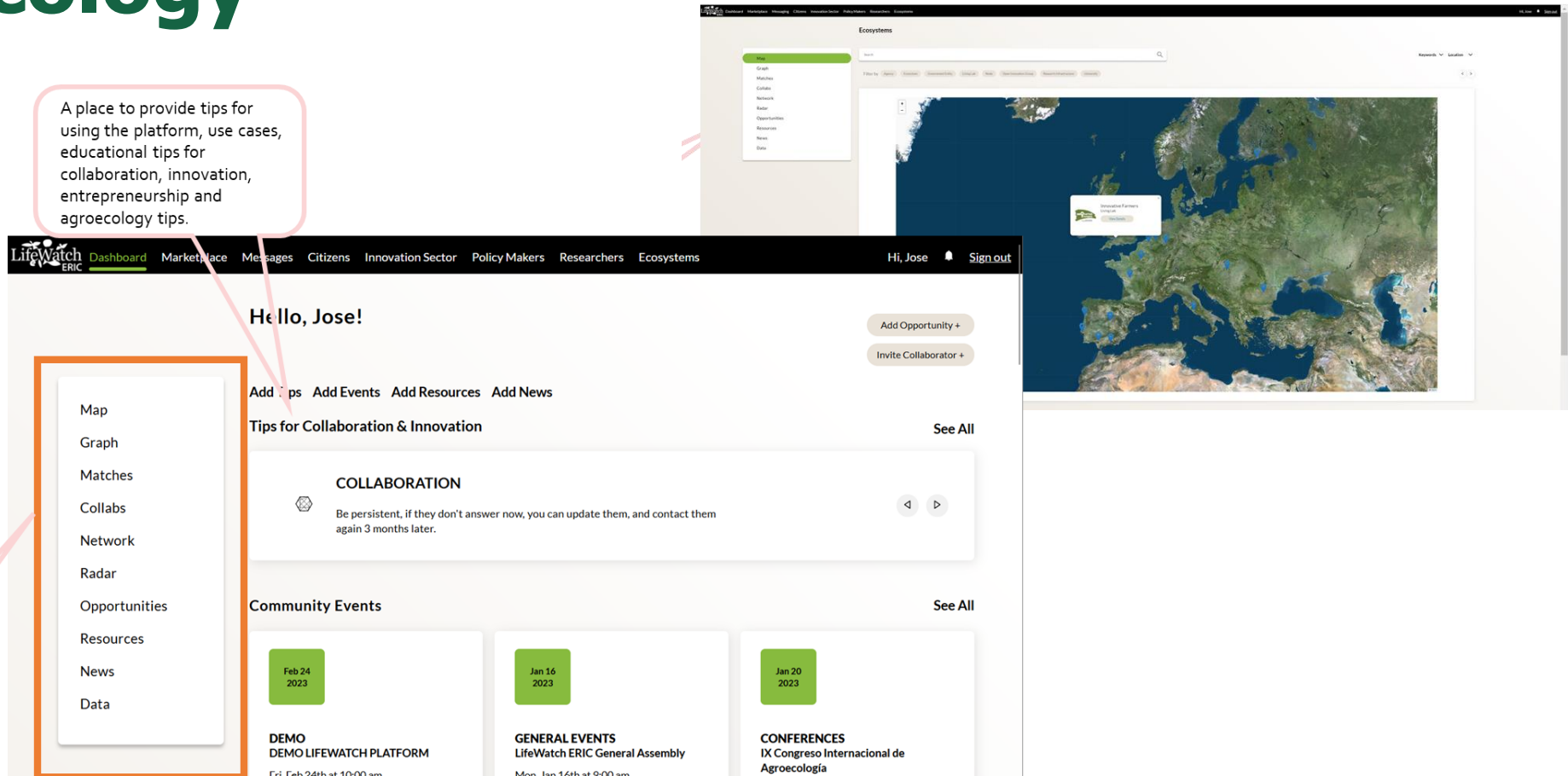
Communication

Collaboration

Networking

Sharing knowledge

New features



# A Virtual Research Environment for Agroecology



## Institution page

- Communication
- Collaboration
- Networking
- Sharing knowledge

Editable information "by the coordinator", to add logo of the ecosystem, keywords, websites, link to the official chat channel.

A screenshot of a web application interface. At the top is a navigation bar with links: Dashboard, Marketplace, Messages, Citizens, Innovation Sector, Policy Makers, Researchers, and Ecosystems (highlighted with a red box). On the right of the navigation bar, it says 'Hi, Jose' and 'Sign out'. Below the navigation bar is a header 'Ecosystems' with an 'Add Ecosystem +' button. A search bar is present. Below the search bar are filter buttons: Agency, Ecosystem, Government Entity, Living Lab (highlighted with a red box), Node, Open Innovation Group, and Research Infrastructure. A list of ecosystem cards is shown. The first card is for 'LLAEBIO (Living Lab on Agro-Ecology and Organic Farming in Flanders)'. It features a logo with the text 'LIVING LAB AGRO-ECOLOGIE &amp; BIOLOGISCHE LANDBOUW'. The card text describes the living lab's mission and includes keywords: 'agroecology, organic agriculture, agrifood'. A 'View Details' button is on the right of the card. A red box highlights the 'Ecosystems' navigation item and the 'View Details' button.

There is a new directory to "Find Ecosystems" where you will find all the living labs and research infrastructures and other local ecosystems.

# A Virtual Research Environment for Agroecology



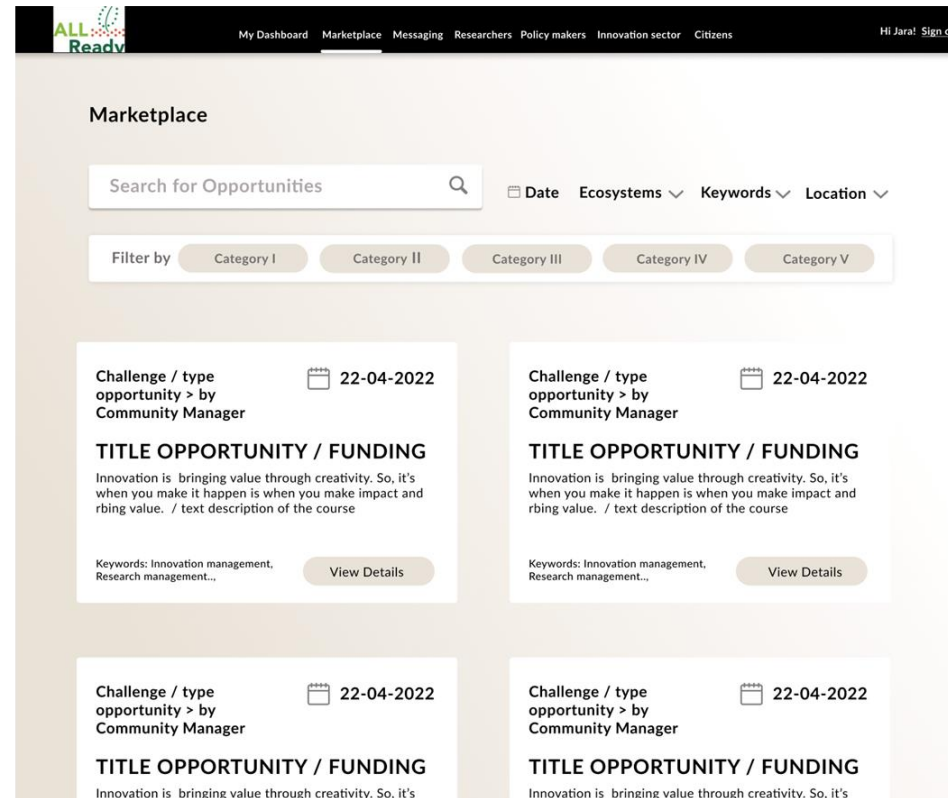
## Marketplace

This is a search engine optimization with elastic search technology where public funding, innovation programs, public procurement, challenges, erasmus+, and horizon europe programs are aggregated. Every member can add their own research results, services, technology, research projects, challenges, needs, or looking for consortium partners, etc.

Communication

Collaboration

Sharing knowledge



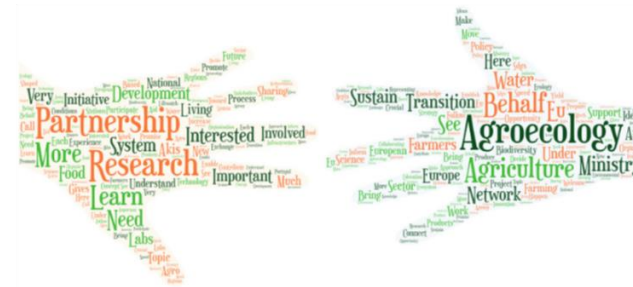
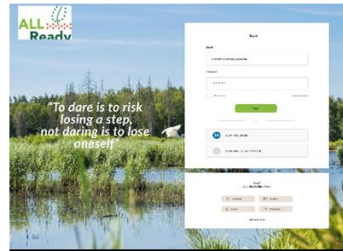
# A Virtual Research Environment for Agroecology



## Match

Match Institutions-People-Resources-Needs-Opportunities:

Keywords, metadata and descriptions will allow matching all the elements in the platform with your expertise and needs

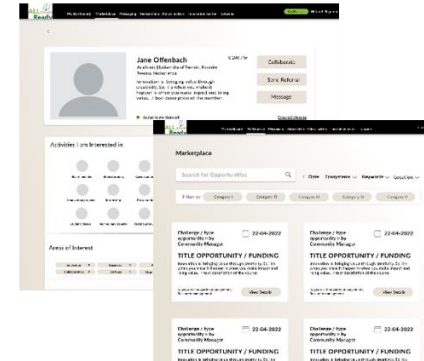
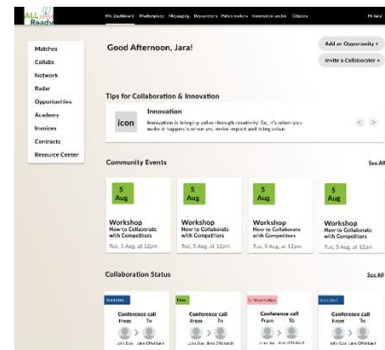


Communication

Collaboration

Networking

Sharing knowledge



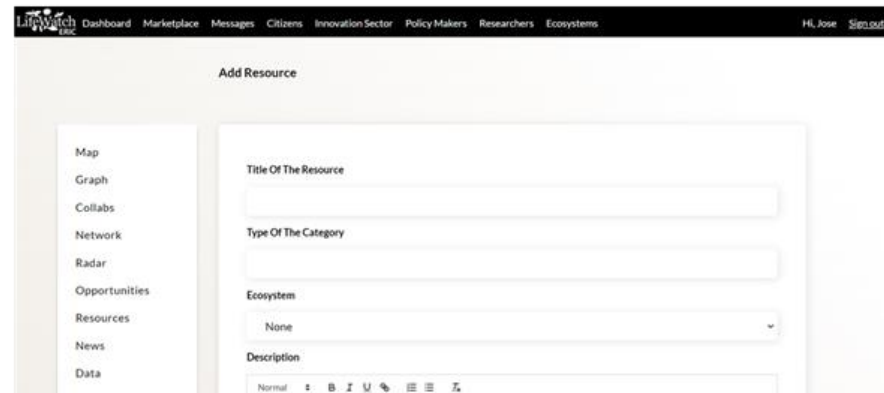
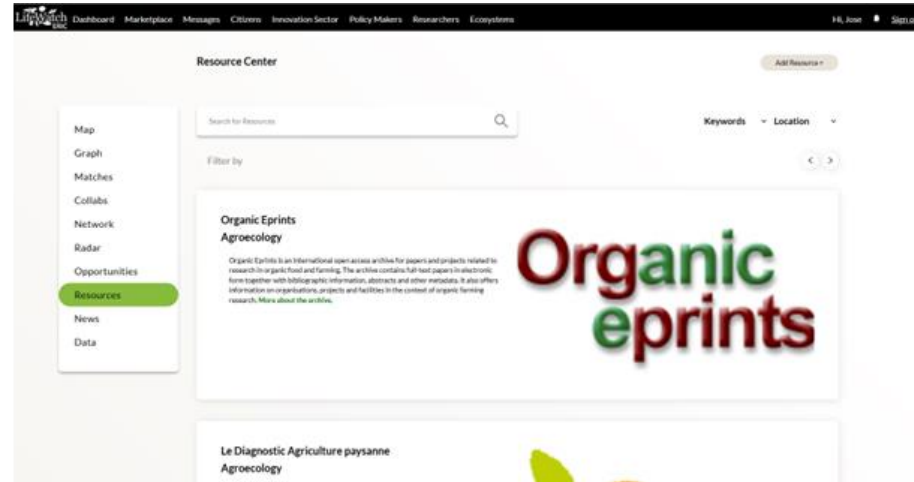
# A Virtual Research Environment for Agroecology



## Repository

Common space to share resources with clear information needed to quickly make a decision to connect to collaborate.

Sharing knowledge

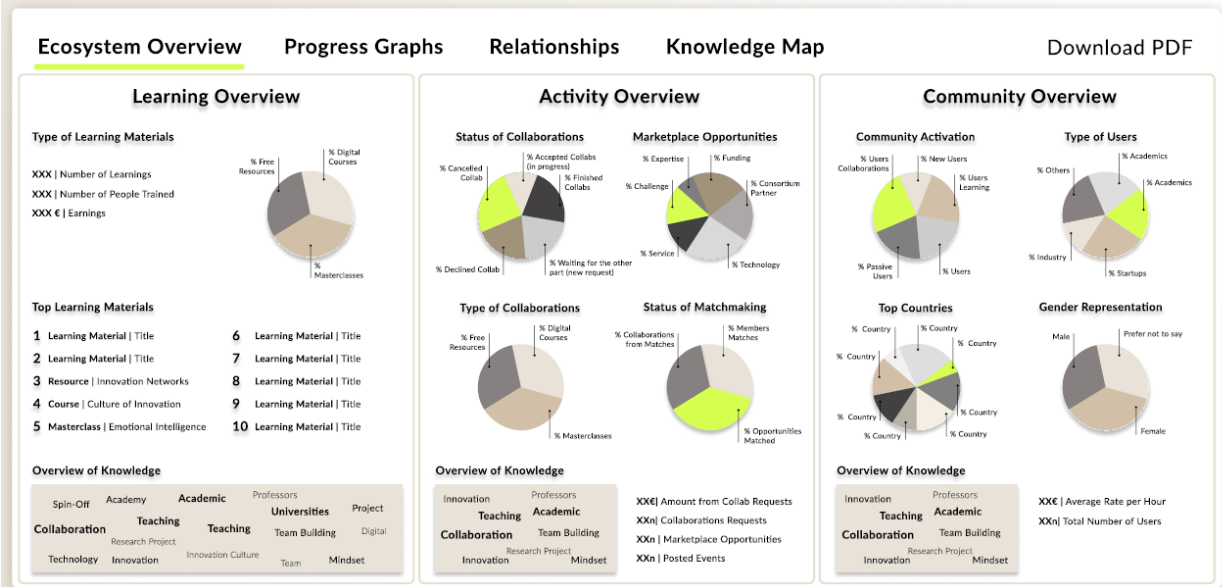




# A Virtual Research Environment for Agroecology



## COORDINATOR DASHBOARD



Results under study. But we specifically we expect:

Increased internal collaboration

Increase external collaboration

More documents exchanged

Reduce the time to solve problems

# What is next?

- Upscale the Agroecology VRE for the future EU Network of Agroecology Living Labs and Research Infrastructures
- Include new functionalities in the Agroecology VRE:
  - Monitoring and evaluation workflows
  - Gathering, processing and integration of datasets
  - Visualization of best practices
  - Decision-making tools
  - Modeling and simulation tools
  - AI applications
  - Blockchain
  - ...



# Take-home message

- Innovative and co-designed VREs can play a crucial role in advancing the agroecology transition by promoting collaboration between Agroecology Living Labs and Research Infrastructures
- This interaction can create opportunities for capacity building, knowledge sharing, and networking among users, such as researchers, farmers, civil society, and policymakers.
- The next versions of the Agroecology VRE will provide evidence-based solutions to farmers, policymakers and consumers based on data-intensive research.



*\*Take home message*



# Thanks

José M. Avila: [josem.avila@lifewatch.eu](mailto:josem.avila@lifewatch.eu)

Iria Soto: [iria.soto@lifewatch.eu](mailto:iria.soto@lifewatch.eu)

Web: [lifewatch.eu](http://lifewatch.eu)



Copyright: All photos have been downloaded from INRAE's photo library <https://mediatheque.inrae.fr/>. All rights reserved.



[www.all-ready-project.eu](http://www.all-ready-project.eu)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000349 (ALL-Ready).