ALL-Ready Project Deliverable 4.2.



ALL-Ready – The European Agroecology Living Lab and Research Infrastructure Network: preparation phase

## Report on the preconditions for the sustainability of the Network and recommendations for its long term success

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Deliverable Number	D4.2
Work Package	WP4
Deliverable type	Report
Dissemination level	Public
Deliverable leader	Thünen Institute
Due date	31 <sup>st</sup> of December 2022
Submission date	12 <sup>th</sup> January 2024
Version	Third
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000349 (ALL-Ready).

### History of changes

Revision	Date	Authors	Comments
V1	30.06.2023	Isidora Stojacic, Gerald Schwarz, Antonia Riedel, May Hobeika, Sylvie Fosselle, Jo Bijttebier, Bastian Göldel, Dolinda Cavallo, Isabelle Couture, Lisa Haller	
V2	31.10.2023	Isidora Stojacic, Gerald Schwarz, Antonia Riedel, May Hobeika, Sylvie Fosselle, Jo Bijttebier, Bastian Göldel, Dolinda Cavallo, Isabelle Couture, Lisa Haller	
V3	12.04.2024	Isidora Stojacic, Gerald Schwarz, Antonia Riedel, May Hobeika, Sylvie Fosselle, Jo Bijttebier, Bastian Göldel, Dolinda Cavallo, Isabelle Couture, Lisa Haller	

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### List of abbreviations

AE	Agroecology
САР	Common Agricultural Policy
CSA	Coordination and Support Action
DUT	Driving Urban Transition Partnership
EAB	External Advisory Board
EC	European Commission
EIP Agri	European Innovation Partnership for Agricultural Productivity and Sustainability
ENAF	European Network for Agroecological Food systems
ENoLL	European Network of Living Labs
ENRD	European Network for Rural Development
ERA	European Research Area
EUFRAS	European Forum for Agricultural and Rural Advisory Services
GRA	Global Research Alliance on Agricultural Greenhouse Gases
LAG	Local Action Group
LL	Living Lab
NCP	National Contact Point
NRN	National Rural Networks
OIA	Open innovation arrangement
RI	Research Infrastructure
SMS	Soil Mission Support
ТР	Technology Platform
WP	Work package



## **Executive summary**

This document is Deliverable D4.2 in the Work package (WP) 4 "Implementation and Sustainability of the Network". WP 4 aims to provide an implementation plan that ensures the added value and sustainability of the European Network of LLs and RIs capturing and promoting long-term processes of transitions to agroecology. In particular, this report includes the results of Task 4.2 "Identification of key factors for the sustainable long term implementation of the Network" and Task 4.3 "Co-construction of recommendations for long term success of the Network".

The overall objective of this report was to derive preconditions for the sustainability of a European Network of Agroecology LLs and RIs based on the identification of key success factors impacting on its sustainable long-term implementation. The report analyses and synthesises key factors for the sustainable long-term implementation of the European Network of Agroecology LLs and RIs based on the mapping activities in WP2, additional empirical data collection done through interviews with a selection of networks of networks within the European and international agricultural and rural development arena, regional workshops with agroecology LLs, RIs and funding organisations across Europe and participatory engagements with the pilot network. Recommendations are derived for the sustainability and the long-term success of the European Network informing the strategic guidance for its implementation plan.

A European Network of Agroecology LLs and RIs is a major component of the Horizon Europe Partnership AGROECOLOGY. Agroecology LLs and RIs face significant challenges, particularly in terms of funding constraints, which the European Network can help address. The network has the potential to support inclusive place-based innovation that accelerates the transition to agroecology at the local, regional, national and European levels. Its main benefits lie in strengthening collaboration, raising awareness, addressing funding gaps and promoting value chain solutions. Reaching the full potential of the European Network requires a long-term strategy and a common understanding of key factors impacting on its successful implementation and evolution over time (including the governance of the network and its funding, thematic priorities, communication and dissemination activities, IPR and data management, and policy requirements and dialogue).

The European Network of living labs and research infrastructures follows an "assembled" model of network creation, whereby existing or new components are gathered together into a unified but heterogeneous network. Among its component organisations, such a network may display much greater diversity of objectives, funding sources and timelines, and implementation models. The heterogeneous nature of the assembled European Network of AE LLs and RIs needs to be reflected in its implementation and management and has implications for the supporting policy and funding environment.

The European Network will include a diverse range of LLs and RIs with experiences differing in terms of organisations, objectives, approaches, thematic expertise and the level of expertise in running an initiative. While this diversity increases the complexity of managing the Network, it is important to fully embrace the benefits from the diversity of its composition, profiting from a wide range of different experiences and expertise valuing place-based innovation and research and transdisciplinarity, and offering a space for open dialogue between stakeholders and between disciplines.

Enabling adaptive governance that responds to changes in size and experiences of its members will utilise the benefits from, and values of, the diversity of its composition. The heterogeneous nature of the network requires the allocation of adequate resources for network management and coordination.



Allowing for consolidation processes and activities is a key factor of success for the longterm implementation of a heterogeneous network. Time is needed to develop relationships enabling trusted open exchange, to establish, review and adapt governance processes, as well as objectives, values and activities of the network, and to develop and evolve network infrastructure.

The complexity and diversity are success factors for the European Network of Agroecology LLs and RIs, but they also make its implementation challenging. Related key issues are the coordination and integration of activities, high number of transactions and risk of meeting fatigue, and the utilisation of additional benefits such as enhanced network resiliency.

Generating evidence on the benefits of developing and participating in the European Network fosters buy-in and commitment from funding organisations and LLs and RIs. This requires the development of tools or approaches to monitor and evaluate the performance of the network in a transparent and sound manner.

A further key factor in facilitating knowledge exchange, data sharing and integration of scientific methods and results between living labs and research infrastructures is the development of guidelines and protocols to support data harmonisation and mobilisation.

Several risks for the successful implementation of the European Network need to be addressed. Network and stakeholder fatigue are the most important risks to consider. One reason is the high number of existing networks that compete for the engagement of stakeholders in the agricultural and rural development arena in Europe. The experiences with the pilot network highlight the importance of the right facilitation approaches, engagement tools and techniques to keep stakeholders involved in, and excited about, the European Network and of consistent and frequent website continuation.

The pivotal role of agroecology in supporting key European policies, such as the Green Deal, is widely recognised by the European Institutions. The Horizon Europe Partnership AGROECOLOGY with its European Network of Agroecology LLs and RIs is an important investment in promoting research and innovation on transitions to agroecology in the next 7 – 10 years. Long-term funding beyond the duration of the Partnership is vital and long term political and financial investments are needed at local, regional, national and European levels.

Research policies and flexible funding mechanisms need to accommodate adaptive governance and embrace changing roles and responsibilities of different types of actors and dynamic action plans of the network. Further research is needed to understand the impacts of different types of networks on the successful long-term implementation and governance. Funding programmes need to encourage research into defining network types and their characteristics as these have implications for how a network functions and how such large-scale networks of LLs and RIs may need to be supported by both policy and practice.

The analysis of the experiences of similar network of networks improved the understanding of key factors for the sustainable long-term implementation of the European Network. The identified key success factors and recommendations support the prospective members of the European Network to develop the implementation plan for the governance, funding and activities of the European Network so that the network can best respond to the expectations of the agroecological community in Europe. Lessons learnt on key challenges of LLs and RIs, and on the contribution of the network to addressing these challenges, will inform the development of further methodological guidance for the LL approach and the definition of the requirements and conditions for effectively integrating the LL approach with RIs in the Partnership AGROECOLOGY, closely involving policy-makers and funding organisations at European, national and regional level.



## **1. Introduction**

ALL-Ready is a Coordination and Support Action (CSA) funded by the European Commission (EC) with the aim of preparing a framework for a future European network of Living Labs (LL) and Research Infrastructures (RI) that will enable the transition towards agroecology throughout Europe. Based on the premise that agroecology can strengthen the sustainability and resilience of farming systems, such a European Network is expected to contribute to addressing the multiple challenges that farming systems are facing today including climate change, loss of biodiversity, dwindling resources, degradation of soil and water quality as well as the social and economic dimensions of sustainable and resilient agroecosystems.

The vision for building the network of LLs and RIs for agroecology transition (co-created with stakeholders at the beginning of the project) highlights the ambition to support farmers and other actors involved in transitions to agroecology in better understanding, implementing and outscaling agroecological principles and practices. This is to be achieved through promoting transdisciplinary, participatory, inclusive and coordinated experimentation in real-life settings, ensuring knowledge exchange at the European level, and delivering a series of long-term data on ecological, economic and social processes of transitions to agroecology in diverse conditions across Europe (Mambrini-Doudet *et al.*, 2022). This requires an improved understanding of the key factors for the sustainable long-term implementation of a European Network to fully utilize its potential to address the operational challenges, needs and experiences of LLs and RIs engaged in research and innovation processes in different European farming and food systems in different stages of transitions to agroecology.

This document is Deliverable D4.2 in the Work package (WP) 4 "Implementation and Sustainability of the Network". WP 4 aims to provide an implementation plan that ensures the added value and sustainability of the European Network of LLs and RIs capturing and promoting long-term processes of transitions to agroecology. In particular, this report includes the results of Task 4.2 "Identification of key factors for the sustainable long-term implementation of the Network" and Task 4.3 "Co-construction of recommendations for long-term success of the Network".

The analysis carried out for Deliverable D4.2 focused on the key factors that impact on the sustainable long-term implementation of a European Network. The analysis builds on the conceptual framework developed by Mambrini-Doudet *et al.* (2021) and Göldel *et al.* (2021), the analysis of enablers and subsequent recommendations for a network of LLs across Europe by Hvarregaard Thorsøe *et al.* (2023), and the assessment of the added value of a European Network (Schwarz *et al.*, 2022).

# The overall objective of this Deliverable (D4.2) is to derive recommendations for the sustainability of a European Network of Agroecology Living Labs and Research Infrastructures based on the identification of key success factors impacting on its sustainable long-term implementation.

The specific objectives of Deliverable 4.2 are:

- To analyse and synthesise key factors for the sustainable long-term implementation of the European Network of Agroecology LLs and RIs based on the mapping activities in WP2, additional empirical data collection done through interviews with a selection of networks of networks within the European and international agricultural and rural development arena, regional workshops with agroecology LLs, RIs and funding organisations across Europe and participatory engagements with the pilot network.
- To derive recommendations for the sustainability and the long-term success of the European Network of Agroecology LLs and RIs informing the strategic guidance for developing its implementation plan.



The short report is structured as follows:

- Section 2 describes the methodological approach of integrating findings from the • engagement and data collection with networks of networks within the European and international agricultural and rural development arena, done through interviews in Task 4.2, and with the wider community of AE LLs, RIs and funding organisations and the pilot network done through workshops in Task 4.3.
- Section 3 summarises key lessons for the sustainable long-term implementation of the European Network of AE LLs and RIs based on the experiences of other networks of networks in the European and international agricultural and rural development arena, and on the insights from the regional workshops with the AE LLs, RIs and funding organisations.
- Section 4 reports the recommendations for the long-term implementation of the European Network, co-developed with the pilot network, and integrating the lessons from the other networks of networks and from the regional workshops with experiences from the pilot network activities.
- The concluding Section 5 synthesises the key factors and policy recommendations.

## 2. Research methods and data collection

## 2.1 Overview of research design and integration within the overall project concept

Agroecology is widely recognised as an integrated approach that combines ecological and social concepts and principles in the design and management of farming and food systems. It emphasises the significance of networking through partnerships and other forms of cooperation, as key elements to maximise synergies, and reduce trade-offs in both natural and human systems (FAO, 2018).

Agroecology LLs and RIs represent networks of their participating actors that operate at different scales (e.g. local, regional and national) and have the potential to foster knowledge transfer, capacity building and co-learning about innovative solutions for advancing transitions to agroecology (Schwarz et al., 2022, Hellström and Vandenbroucke, 2023).

We understand the foreseen European Network of Agroecology LLs and RIs as a network of networks gathering and transferring knowledge from LLs, RIs and OIAs (open innovation arrangements) with the main aim to accelerate transitions to agroecology (Mambrini-Doudet et al., 2022). Such a network of networks may also contribute to EU level policy ambitions being better understood, and possibly implemented, at national levels (Thorsøe et al., 2023). Similar network of networks relationships exist in the European agricultural and rural development arena. For example, National Rural Networks (NRNs) are interlinked with the European Network for Rural Development (ENRD), which shall ensure networking at the community level between NRNs and other stakeholders such as farmers' associations or Local Action Groups (LAGs) (ENRD, 2022). Other examples include networks of networks of other Horizon Europe Partnerships and Missions (e.g. Driving Urban Transitions and Soil Mission) and at the global level, the Global Research Alliance on Agricultural Greenhouse Gases. The experiences on the implementation and management of such other networks of networks provide insights into the preconditions for the sustainability of a European Network of Agroecology LLs and RIs and inform our understanding of why such a European Network can fail or succeed.

The European Network of Agroecology LLs and RIs follows an "assembled" model of network creation, whereby existing or new components are gathered together into a unified but



heterogeneous network. Among its component organisations, such a network may display a much greater diversity of objectives, funding sources and timelines, and implementation models. Effective governance of networks entails several aspects: network design, network framing, network management, and network participation (Sørensen and Torfing, 2009). It also requires shared principles enabling constructive engagement and dealing with disagreements among the network actors (Hu et al., 2017). Therefore, a key issue for network governance is to develop commonly shared values and a vision for the network, so that joint goals of the network can be achieved and potential conflicts among the actors resolved (Clauß and Ritala, 2023).

The analysis of key factors impacting on the governance and sustainable long-term implementation of a European Network of Agroecology LLs and RIs built on the conceptual framework developed in ALL-Ready. This framework includes a common understanding of values driving the engagement of actors in the transition process towards agroecology, along with the definitions and criteria for agroecology LLs and RIs (Mambrini-Doudet *et al.*, 2022, Göldel et al., 2021), an improved understanding of the challenges and needs of agroecology LLs and RIs and of the added value of a European Network (Schwarz *et al.*, 2022) as well as the recommendations for further advancing agroecology transition with LLs and RIs (Thorsøe *et al.*, 2023).

The analysis of the added value of a European Network of Agroecology LLs and RIs identified common views of LLs, RIs and funding organisations regarding key benefits expected from such a European Network. These benefits include:

- strengthened networking and collaboration,
- an enhanced portfolio of research and innovation activities promoting synergies between different ecosystem functions,
- knowledge creation, exchange, and diffusion,
- improved visibility and impact on policy, science and society,
- synergies of public and private funding sources,
- support for a long-term strategy for management, activities and funding,
- stronger engagement of actors in agroecological transitions,
- resulting in further improvements in organisational aspects of the LLs and RIs, and thus more effective governance (Schwarz et al., 2022).

These stakeholder expectations reflect key barriers and enablers of LLs and RIs linked to governance, features of LLs, characteristics of participants, adaptability, social dimensions, training and research, and elements beyond the LL (e.g. conditions for transition to the real world in different ecosystem contexts) (Berberi *et al.*, 2023). Key enablers such as strong collaborative and iterative processes with networks and partnerships indicate the potential of a European Network of Agroecology LLs and RIs to address knowledge gaps on the effective use of the open innovation approach in research and practice focused on sustainable agriculture and farming systems (Beaudoin *et al.*, 2022). This is also supported by a recent evaluation of the European Network for Rural Development (ENRD) and the National Rural Networks (NRN), which also highlighted the contributions of such networks of networks at the European level to enhanced stakeholder involvement, knowledge exchange and capacity building in implementing solutions and managing programmes for sustainable agriculture and rural development (Beck *et al.*, 2023).

Harnessing the potential of a European Network requires an improved understanding of key factors that impact on its long-term sustainability. A variety of drivers, barriers, challenges, and needs related to the governance of LLs and RIs have been identified in the mapping (WP2) and assessment of the added value of a European Network (WP4). These can be tentatively grouped into key themes for factors of success for the long-term implementation of the European Network:

- policy and legal requirements,
- network governance and institutional arrangements



- funding and non-monetary resources,
- capacity building,

- IPR and data management,
- cooperation and stakeholder engagement,
- communication, knowledge diffusion and dissemination

After closely examining what drives and constrains a European Network, Task 4.2 developed a framework validated by stakeholders. This framework outlines key factors crucial for the sustainable implementation of the network. This process involved delving into the challenges and opportunities for LLs and RIs during agroecology transitions. We also explored the value that a European Network adds and probed key issues for its implementation in a set of regional workshops, particularly those related to funding and the potential roles of LLs, RIs, and funding organisations.

To enrich our understanding, insights from previous tasks in ALL-Ready were included. The insights from WP2 and previous tasks in WP4 informed the empirical data collection done through interviews on the experiences of, and lessons learnt from, networks of networks in the agriculture and rural development arena across Europe. Particular attention was paid to the funding approaches of the initiatives. The key factors for the sustainable implementation of the Network were reviewed with the pilot network (WP3) and the External Advisory Board (EAB). Table 1 provides an overview of the data collection and sources that informed the identification of the key factors for the sustainable long-term implementation of the European Network in Task 4.2 and subsequent recommendations in Task 4.3.

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Table 1 Overview of data collection and sources f sustainable long-term implementation of the Europ	or the analysis of the ke bean Network of Agroecol	y factors for the ogy LLs and RIs

Method/approach	Key theme and output	Stakeholders involved	ALL-Ready data source
Mapping of	Key barriers and drivers for	LLs, RIs, funding	WP2 (D2.6)
agroecology LLs and RIs in Europe	LLs and RIs in AE transitions and added value of a European Network	organisations and NCPs (Policy, Research, NGOs)	WP4 (D4.1)
Interviews	Experiences and lessons learnt from other networks of networks	Selected networks of networks in Europe	Task 4.2
	Identification of key issues for the implementation of the European Network		
Regional workshops	Reflection of key issues for the implementation of a European Network from a diverse range of perspectives of actors engaged in LLs, RIs and funding organisations	LLs, RIs, funding organisations and NCPs (Policy, Research, NGOs)	WP2 and Task 4.3 (workshop reports)
Pilot network workshops	Recommendations for the implementation of the European Network integrating the experiences of the pilot network	Pilot LLs and RIs and EAB	Task 4.3



## **2.2 Data collection and sources for the analysis**

## 2.2.1 Interviews with networks of networks

The main aim of the interviews was to improve the understanding of key factors for the successful long-term implementation of the European Network of Agroecology LLs and RIs. This was achieved by drawing insights from the experiences of other networks of networks in the agriculture and rural development arena across Europe and beyond, identifying examples of implementation characteristics of relevance for the European Network. The selection of networks of networks was deliberate, aiming to tap into the wealth of knowledge held by those who had firsthand experience in establishing and managing networks of networks. By targeting individuals and organizations with a proven track record in navigating the complexities of implementing such structures, the goal was to distill practical lessons that could inform the development and sustainability of the European Network of Agroecology LLs and RIs. The selection of networks for interviews considered diverse criteria, encompassing different initiative types and organisations representing a network of networks. Criteria included geographic coverage, main funding sources, and specific considerations such as:

- Network governance: To inform the governance of the European Network of AE LLs and RIs, it was of tremendous interest to understand the governance structure of different networks, success cases, and how networks were established and are maintained, with the aim of potentially replicating successful models.
- Thematic focus: specific relevant topics and themes the networks of networks focus on, for example, TP ORGANICS, which focuses on strengthening research and innovation for organic and agroecological approaches contributing to a sustainable food and farming systems.
- Strategic focus: networks of networks that are of strategic importance for the future European Network of AE LLs and RIs, possessing a strong influence on an EU level in the sector and can facilitate the creation of the network by influencing legislations or providing funding to the network itself. For example, entities like FACCE-JPI, which play a strategic role with a strong transdisciplinary research base, addressing economic, social, and scientific aspects. FACCE-JPI aims to contribute to the European Research Area (ERA) by mobilising researchers, funders, and stakeholders, influencing legislations, and providing funding support to the network.

Considering the vision and mission of the future European Network of Agroecology LLs and RIs (Mambrini-Doudet *et al.*, 2022) and targeting the required partners for this research, we pursued the following steps in designing the interviews and selecting the interviewees:

**1. Scope of the interviews** – The ALL-READY project aims to examine how different networks of networks which have a similar purpose and similar structure succeeded in running including their governance, funding and finally ensuring long-term sustainability. Additionally, the aim is to raise awareness among other networks and initiatives and spread the idea of an agroecological network and therefore analyse the entire ecosystem to have a complete overview of the potential members and best use cases.

**2. Target group** – Targeting other networks of networks in the agricultural and rural development arena that are of relevance for the European Network of agroecology LLs and RIs, understanding their scope for the purpose of the network and detecting the right person to be interviewed, also it was crucial to cover different scope elements, such as the governmental body, small organisations, networks of LLs, networks in agroecology and the agri-food system, network-projects, successful case examples, etc.



**3. Methods of data collection** – Booking interviews, recording responses by the previously collected relevant set of questions, signing the GDPR consent with the interviewees and finally listening to the recording and filling in the template with the responses of the people who were interviewed. Figure 1 provides an overview of the interview questions.

#### Set of questions for the interviews:

- Introduction
  - Briefly describe / summarise the purpose of the network.
  - What organisations or actors are in the network?
- General administrative governance of the existing network
  - Who initiated the network of networks?
  - How did you choose members of the network? Please explain the process of member selection.
  - Who is coordinating the network and what decision-making bodies (groups) have been set up?
  - What benefits do your members expect from the network?
- Setting up a new network requirements and experiences
- Funding
- How do you raise capital for the network?
- Where do you look for long-term or short-term funding options?
- Sources of funding preferred: private or public?
- Data management
  - How do you manage data sharing and address the need for suitable common data platforms?
- Capacity building
  - What are the main activities and themes?
  - What are the main activities and themes for capacity building/how is it done?
- Cooperation and engagement
  - How do you sustain engagement within your network?
- Communication, knowledge diffusion and dissemination
  - How do you sustain effective communication and dissemination within the network and to the wider community?

Figure 1 Set of interview questions

**4. Comparative values** – To get final results of the research, we started with examining the characteristics of the entities, which of them would be more suitable considering the mutual benefits, and identifying common issues between entities. In this deliverable, we examine the networks of networks, their governance, how they were established, initial phases of development, key activities, funding and future plans.

**5. Expected results** – Examining experiences from the establishment and operation of other networks of networks generates valuable insights on lessons learnt for the implementation of the European Network of AE LLs and RIs.

Overall 16 interviews with different networks of networks were conducted in winter 2022 / 2023, which are listed in Table 2.



Table 2 Overview of networks of networks which participated in the interviews

Name of organisation	Type of organisation	Geographical coverage	Main funding sources
BIOFAIR project (Bridging Consumers, Brands and Bio Based Industry to improve the market of sustainable bio-based products)	Project	EU level	EU Commission/public
European Network of Living Labs (ENoLL)	Network	EU level	Public/Private – participation fee
IPMWORKS project (EU- wide farm network demonstrating and promoting cost-effective IPM strategies)	Project	EU level	EU Commission/public
LIASON project (Linking Actors, Instruments and Policies through Networks)	Project	Western Europe	EU Commission/public
ORGANIC FARM KNOWLEDGE	Project	EU level	EU Commission/public
LIFEWATCH ERIC	Network	Mediterranean area mostly	Public institutions
HESSEN LIVING LAB	Umbrella association	Germany	Municipality/Public institutions
FACCE-JPI	Initiative	EU level	Public
IFOAM Organics	Network	EU level	Public
Technology Platform (TP) Organics	Initiative	EU level	Public/Private
Meetings of the Agroecoystem Living Labs (MeALL)	Network	France / Canada	Public
European Network for Agroecological Food systems (ENAF)	Network	EU level	EU Commission/public
Soil Mission Support (SMS)	Project	EU level	EU Commission/public
European Forum for Agricultural and Rural Advisory Services (EUFRAS)	Network	EU level	Public
Driving Urban Transition Partnership	HE Partnership	EU level	Public
Global Research Alliance (GRA)	Network	Global	Public



The interviewed initiatives were:

- **BIOFAIR project-network:** BIOFAIR is a project-network initiative with a main goal to deliver policy briefs on the quality of the grains at the EU level at the end of the project. The project partners do not want to create a policy brief which will not be useful, instead after the end of the project they want to design the scientific questions and key conclusions which are to be delivered to their stakeholders farmers, researchers, policy makers and others in the BIOFAIR's project-network.
- **ENOLL:** ENOLL is an already well-established network. The purpose of ENOLL is to be the ambassador of values of co-creation and open innovation and to provide members with new opportunities to build capacities and knowledge around Living Labs and help them to develop and scale up their actions and initiatives and to expand their own value for their stakeholders.
- **IPMWORKS:** IPMWORKS is a H2020 project-network with the main aim to promote the development of IPM strategies, decrease the use of pesticides and convince farmers that if they consider holistic IPM it will decrease the use of pesticides and they still make money at the farm level.
- **LIASON:** LIASON is a project-network aims to help unlock the potential of "working in partnership for innovation" in agriculture and with a purpose of strengthening the co-creation and multi-actor co-operation within the consortium as well as close engagement of stakeholders around the network, such as the advisory board, which gave feedback more on the scientific level and the microregional stakeholder hubs.
- **ORGANIC FARM KNOWLEDGE:** Organic Farm Knowledge is a project that aims to provide an online space for the storage of knowledge which comes out of science, especially from EU research, which is user-friendly, for the purpose of knowledge exchange. The platform focuses on the EU level which includes knowledge from national platforms and focuses on the organic sector.
- **LIFEWATCH ERIC:** LifeWatch ERIC is a special network, it is an ERIC (European Research Infrastructure Consortium), where different partners across Europe gather together with a common mission to provide digital tools, ICT capacities to researchers, policy makers and other users that work on biodiversity and ecosystem research.
- **HESSEN LIVING LAB:** The Hessen Living Lab will be an umbrella association where all the actors in the organic sector will be heard. The main idea it will have as an initiative is to promote organic farming in the federal state of Hessen.
- **FACCE-JPI:** FACCE-JP is a Joint Programming Initiative to stimulate collaboration between member states, and to provide coherence in research programming across Europe to meet the societal challenges of jointly ensuring food security, adaptation to climate change impacts, and mitigation of greenhouse gases emissions. This will be achieved with a strong transdisciplinary research base, encompassing economic and social aspects in addition to scientific ones, and with a creative approach towards the alignment of national programmes and the input of multiple actors and stakeholders. FACCE-JPI also strives to contribute to the strengthening of the European Research Area (ERA) by mobilising European researchers, funders, and other stakeholders.
- **IFOAM**: IFOAM is a lobby organisation for integrating principles of organic food and farming into different policies but also represents more than 200 Members from the entire organic food value chain. The purpose of those Members is to organize and provide network, events and knowledge exchange at the European level in order to ensure their cooperation and improvement. In terms of the processes of member selection, they are open to organizations, different businesses, and companies but also NGOs that work in the agri-food sector.
- **TP ORGANICS**: TP Organics is an initiative that helps to develop research innovation agenda that sets road maps for research action at EU and international level. The main purpose of the organisation is to strengthen research and innovation for organic and



ALL-Ready - The European Agroecology Living Lab and Research Infrastructure Network: 13 preparation phase agroecological approaches that contribute to sustainable food and farming systems. TP Organic has 140 member organisations; members such as umbrella organisations, national members, like research institutes, companies and all the national technology platforms that represent the national level.

- **MEALL**: MeALL stands for the Meetings of the Agroecoystem Living Labs. MeALL is a way for Agrifood and Agriculture Canada's (AAFC) network of 13 living labs to connect to the equivalent network in France through the national research institute for Agriculture, Food and the Environment (INRAE).
- **ENAF**: ENAF is a European Network for Agroecological Food systems, which was created to harness the potential and capabilities of existing national and European networks to contribute more effectively to the agroecological transformations of agricultural and food systems in Europe. This initiative was spearheaded by the Agroecology for Europe (AE4EU) project.
- **SMS:** The SMS (Soil Mission Support) is a project-network. The Horizon Europe (HE) Mission "A Soil Deal for Europe" aims to accelerate the transition to sustainable soil and land management, and healthy soils through an ambitious transdisciplinary research and innovation (R&I) programme, largely based on actor engagement, Living Labs and Lighthouses of which 100 should be established until 2030. The H2020 Soil Mission Support (SMS) project supported the implementation of the HE Mission and aimed to improve the coordination of R&I on sustainable soil and land management.
- **DUT:** The Driving Urban Transition Partnership is a public-public partnership, co-funded by 29 European countries and the European Commission under Horizon Europe, which consists of consortium with 64 national and regional R&I funders, authorities and agencies dealing with urban policy, research performing organizations and other organizations as strategic partners.
- **GRA**: The Global Research Alliance (GRA) aims to bring countries together to find ways to grow more food without increasing greenhouse gas emissions. The GRA Charter provides a framework for voluntary action to increase cooperation and investment in research activities to help reduce the emissions intensity of agricultural production systems and increase their potential for soil carbon sequestration, and to contribute in a sustainable way to overall mitigation efforts, while still helping to meet food security objectives.
- **EUFRAS**: The European Forum for Agricultural and Rural Advisory Services (EUFRAS) is a European network of farm advisory services with 52 member organisations in 28 European countries. The mission of EUFRAS is to promote and support the sustainable development of agriculture in Europe by providing rural advisors with the tools, knowledge and resources necessary to provide a high quality advisory service to European farmers.

## 2.2.2 Regional workshops

The main aims of the regional workshops were to reflect on, and to inform the synthesis of, key issues for the implementation of the European Network and to derive recommendations for its implementation, reflecting a diverse range of perspectives of actors engaged in LLs, RIs and funding organisations. To achieve these main aims, two sets of four regional workshops were conducted across Europe in autumn 2022 and spring / summer 2023 (see Table 2). The purpose of the first set of workshops was to inform participating initiatives about All-Ready, the Horizon Europe Partnership on Agroecology and its future European Network of Living Labs and Research Infrastructures, to raise awareness of the ongoing European-wide survey of living labs and research infrastructures and to provide a platform for exchanging experiences and networking amongst local and regional actors. Within this context the discussion focussed on key themes concerning challenges that LLs and RIs are



facing in accelerating transitions to agroecology, including a reflection on funding issues and a first exploration of possible roles of a future European Network of Agroecology LLs and RIs in addressing those challenges.

After a short introduction round and presentation of the ALL-Ready project and the future European network and Horizon Europe Partnership on Agroecology LLs and RIs, the ALL-Ready online survey tool (<u>https://sondages.inrae.fr/index.php/458632</u>) was explained and illustrated to the participants. The survey remains open for use in the Horizon Europe Partnership AGROECOLOGY and collects information on activities and values of LLs, RIs and other open innovation arrangements and enables these initiatives to situate themselves within the agroecology transition process (see Thorsøe *et al.* (2023) for more information on the survey).

In the main part of the workshops, participants discussed questions related to the experiences of their LLs and RIs in accelerating transitions to agroecology. The participants debated in small groups about the challenges and needs of their initiatives within the transition process, their views about the key contributions of a future European network and their potential role in it. The discussions captured insights from a range of LLs and RIs, some are mature and well-established over many years, while others are new and have only been recently set up, and facilitated learning from each other.

Building on the improved understanding of key issues other networks of networks in the agricultural and rural development arena in Europe experienced in their development and long-term operation, the main purpose of the second set of regional workshops was to further explore how a future European network can address problems and difficulties that LLs, RIs and other open innovation arrangements are facing in the transition process. Particular attention was paid to funding issues and gaps in competencies to inform the capacity building programme for Agroecology LLs and RIs (see also Cavallo *et al.*, 2024). Key issues of implementation were discussed and recommendations for the implementation of the European Network were identified reflecting a diverse range of perspectives of actors engaged in LLs, RIs and funding organisations. In response to the identified challenges and needs of LLs and RIs (see Schwarz *et al.*, 2022, Thorsoe *et al.*, 2023) this included insights into: i) topics, themes and issues that the European Network should address, ii) types of communication and networking activities that are particularly needed, iii) practical solutions for addressing funding gaps, iv) capacity building including gaps in competences and the role of local actors to support development of competences.

In addition, a short update on the Horizon Europe Partnership AGROECOLOGY and the European Network of Agroecology Living Labs and Research Infrastructures was provided and the exchange of experiences and networking amongst local and regional actors continued in the set of regional workshops.



Table 3 Overview of regional workshops.

Date	Location	Number of participants	Types of participants
	First	round autumn	2022
02 <sup>nd</sup> November 2022	Seville	28	Representatives of LLs, RIs and funding organisations in Italy, Portugal and Spain
17 <sup>th</sup> November 2022	Frankfurt	19	Representatives of LLs, RIs and funding organisations in Austria, Belgium, Canada, France, Germany, Netherlands and Portugal
24 <sup>th</sup> November 2022	Budapest	19	Representatives of LLs, RIs and funding organisations in Hungary, Latvia, Poland, Serbia and Slovakia
02 <sup>nd</sup> December 2022	Billund	18	Representatives of LLs, RIs and funding organisations in Denmark, Finland, Norway and Sweden
	Second rou	ind spring / su	immer 2023
11 <sup>th</sup> May 2023	Seville	18	Representatives of LLs, RIs and funding organisations in France, Portugal and Spain
12 <sup>th</sup> May 2023	Budapest	17	Representatives of LLs, RIs and funding organisations in Hungary, Italy, Serbia and Slovakia
22 <sup>nd</sup> June 2023	Frankfurt	15	Representatives of LLs, RIs and funding organisations in Austria, Germany, Latvia, Portugal
29 <sup>th</sup> September 2023	Helsinki	16	Representatives of LLs, RIs and funding organisations in Austria, Denmark, Estonia, Latvia and Finland

## 2.2.3 Pilot network workshops

The main aim of the pilot network workshops was to co-develop recommendations for the sustainable long-term implementation of the European Network, based on the identified key issues and integrating the experiences and lessons learnt from the other networks of networks and the pilot network activities. To achieve this main aim, two workshops (one online and one in person) were conducted with the pilot network in spring / summer 2023.

The ALL-Ready pilot network was a small-scale testbed to provide feedback on the structuring and functioning of the future European Network of Agroecology LLs and RIs based on cocreation and participatory methods, with the lessons learnt informing the setting up of the future network of the Horizon Europe Agroecology Partnership. The network was officially launched in December 2021 with fifteen members. Aiming for an open and dynamic network, four additional initiatives joined the network in November 2022, resulting in a total of 19 members. 11 members identify as LL, seven as RI and one member identifies as both a LL and RI. The members of the network are located across all four European regions (Northern,



Southern, Western, and Eastern Europe) and differ in terms of size and objective, geographic scope of their activities (from local to national level) and levels of experience from recently established to mature and long running initiatives. The users of the LLs are mainly farmers, but may also be consumers or other stakeholders in the agri-food value chain, while in the RIs users are almost always researchers, and only occasionally farmers, advisors, or citizens (see for more details on the design and composition of the pilot network Jonasz *et al.*, 2023).

Insights on key factors of success for the long-term implementation of the European Network were collected from, and discussed with, twelve pilot network members using a collaborative board on MURAL. The board was structured along the framework of key themes for factors of success for the network implementation including:

- purpose and target (any issues in relation to ambitions, objectives and target audience or actors actively involved),
- governance (any issues in relation to the management, organisation, size and overall governance within the network and towards the outside),
- funding (any issues in relation to the funding of the network, including gaps and challenges, potential public and private funding sources),
- policy requirements and dialogue (any issues in relation to how policy can support the network and the role and involvement of policy stakeholders),
- thematic areas (any issues in relation to the thematic focus of the network, including possible priority topics that require particular attention),
- IPR and data management (any issues in relation to data management and intellectual property rights, including a common data infrastructure, data sharing etc.),
- risk factors (any issues in relation to risks impacting on the long-term sustainability of the network),
- communication and dissemination (any issues in relation to sustaining effective communication and dissemination within the network and with the wider community),
- upscaling (any issues in relation to upscaling activities and cooperation, and enlarging the reach and size of the network),
- other (any other issue to be considered that is not captured by the key themes).

Sticky notes were collected and discussed in two participatory exercises on the MURAL board addressing two subsequent questions:

- Based on your experiences, also in the pilot network, what are key issues for the successful long-term implementation of the European Network?
- How can these issues be addressed in the implementation of the European network?

The identified key issues and draft recommendations informed the discussions with the wider community of agroecology LLs, RIs and funding organisations during the second set of regional workshops (section 2.2.2) and were then reflected on in a final workshop with the pilot network in summer 2023, concluding with recommendations for the implementation of the future network of the Horizon Europe Agroecology Partnership. Following a synthesis of insights and recommendations from previous discussions and workshops, the concept, approach and structure of the implementation plan for the future European Network was introduced with subsequent group discussions to identify key success factors for the implementation of the European Network that the plan needs to consider. Particular attention was paid again to funding issues and challenges and opportunities in successfully generating revenue streams to be less dependent on public funding, facilitating the sustainable longterm implementation of the European Network. In addition, pilot network members were informed about the next steps in setting up of the Partnership and their envisaged forthcoming involvement. The key success factors for the sustainability of the European network and recommendations for its long-term success were then reviewed by the External Advisory Board (EAB) in autumn 2023, representing key EU level stakeholders including representatives from funding organisations at European, national and regional level.



## 3. Insights on key issues for the sustainable long-term implementation

## 3.1 Lessons for the implementation from other networks of networks

The goal of the interviews was to draw insights from the experiences of other networks of networks and to identify examples of implementation characteristics that are of relevance for the European Network of Agroecology LLs and RIs. Furthermore, the aim was to draw lessons from the experiences of the other networks of networks that inform the identification of key factors for the sustainability of the European Network of Agroecology LLs and RIs and the strategic guidance for its implementation.

#### Setting up the network

Since some of our interviewees were former projects funded by the EC, it was easy to understand how the network was initiated, how the project partners were found, included, and incentivised to join the network. As broadly known, when constructing the consortium of the project-network, the list of organisations which would have a direct interest in the project is created, the planned outcomes were listed and offered to the partners. Once the project has been approved and started, stakeholder organisations are invited to join. In the same way, ALL-READY is establishing its pilot network, which comprises living labs and research infrastructures in the sector of agroecology. The Soil Mission Support (SMS) project was built as a Coordination and Support action (CSA) in 2020 and lasted for 2 years. Through a co-creation process together with various actors, SMS collated available knowledge, actors' R&I needs and identifies R&I gaps that needed to be addressed for successful transition towards sustainable soil and land management.

Additionally, among the interviewed participants, there were entities established by a third party, such as FACCE-JPI established in 2010, validated by the Council of the European Union and now comprising 23 European countries and New Zealand who are committed to building an integrated European Research Area addressing the interconnected challenges of sustainable agriculture, food security and impacts of climate change.

ENAF, established in 2022, is a collaborative effort undertaken by various European networks and groups to establish a 'Network of Networks' (NoN) aimed at supporting agroecological transformations of European food systems, and is an example of an entity being built out of other different networks.

Lessons: Most of the interviewed entities initiated from EU projects, with further examples set up by other public bodies with a specific aim of creating a network for public purposes. Understanding these diverse pathways to network creation provides valuable insights on the importance of strategic planning, stakeholder engagement, and a clear vision for fostering sustainable and collaborative agroecological transformations.

#### General administration and governance

Some of the interviewed organisations were a result of previously funded FP6, H2020 and other projects funded by the European Commission. Other interviewed organizations are networks, which were created as a joint venture between two big, independently established and running organisations. For instance, one of the interviewed networks was MeALL, the Meetings of the Agroecoystem Living Labs. As stated above, it was established as a joint venture between INRAE and AAFC. This is an example of a network that is run by twelve staff members from the living labs division which supports the network, led by an Associate Director. International matters are managed by the Ministry and a Memorandum of Understanding is signed amongst international partners. In addition, a science coordinator is responsible for the coordination of the scientific



work of the network. All of these different roles can be of relevance for the establishment and implementation of an EU network of Agroecology LLs and RIs.

The interviewed organisations provided examples of the administrative structures of networks, required to set up the network from scratch into a fully functioning entity with different roles assigned to different teams and people in the organisation. Examples differed in size and geographic coverage. Some of the interviewed networks of networks were of smaller nature at regional level being run by small teams in the administration office, and with a network board being part time committed to the day-to-day operations within the network (e.g. Hesse LL).

Other interviewed organisations represent larger networks of networks which operate at European and global level, with governance structures and resource endowment reflecting the larger scope. For example, the European Network of Living Labs was established as a result of a FP6 project with the aim to become a network of, at the time a vaguely known concept, the living lab community. Nowadays, ENoLL is an association, with a Council of 19 members that were partners in the core FP6 project which created ENoLL in the first place. Additionally, a Secretariat was established within the network administration, as well as the management board with a Chairperson, a Treasurer, and a secretary. The Secretary is elected by the Council and the Director of the network. There is also a Vice Chair, who traditionally is added since he/she brings important knowledge. Also, the administrative office is comprised of different units, network administration, policies, finance, capacity building offices, dissemination, and communication office. Also, the members are divided into Working Groups divided into sectors. Additionally, from an operational point of view, there is a General Assembly comprised of all members of the network, where active members have voting rights and adherent members can attend the meetings and participate in the discussions.

There are further examples with well-established governing structures. The DUT Partnership was initiated by JPI Urban Europe; however, the coordination of the Partnership is led by the Austrian Ministry for Climate Action in collaboration with the Austrian Research Promotion Agency (FFG). The coordination team consists of 10 team members. In addition, there is the Managing Board, which consists of the WP leaders. Decisions are taken in the Governing Board (with one vote / voice per country to achieve a geographic balance). The DUT Partnership does not have a regional structure or regional clusters, but it promotes coordination at national level and the development of national programmes (e.g. including the collaboration of different funders within the same country, e.g. Sweden and Portugal, also with different regional funders).

The importance of permanent secretariat and managing or governing boards is also evident from further examples such as EUFRAS and GRA. The governance structure of GRA consists of a secretariat, a council and research groups. The council is the policy level with each of the 66 member countries represented on the council, usually through the agricultural ministry. The council chair rotates every year to another country. And this country also then contributes to the coordination of the GRA in this year. Research Groups are nominated by the Council to address specific areas of work, through work plans that bring countries and partners together in research collaborations, knowledge sharing, use of best practices, and capacity building among scientists and other practitioners. The aim is to develop breakthrough solutions in addressing agricultural greenhouse gas emissions. There are four research groups, the cropland research group, the livestock research group, the paddy rice research group, and the integrative research group. Generally, these groups have three cochairs (from research organisations and research departments of ministries), nominated by the council members, who coordinate the research groups. While the membership of research groups is restricted to researchers from countries that have signed the GRA charter, there are also broader research networks that allow the participation of researchers from any country, linking the GRA activities to the wider global research community.

Lessons: The experiences highlight the importance of: i) a simple but effective governance structure, with key elements such as a secretariat, boards and general assembly, rotating



chairs, and thematic working groups, and ii) permanent team members dedicated to the various aspects of network coordination and management.

#### Funding

A crucial point concluded from the interviews is that for the sustainability of the network a suitable long-term funding strategy is needed. The interviews highlighted a range of different funding sources and business models, but none of the examples uses private funding. The increase in greenwashing has forced investors to look beyond just what a company, network or organisation is saying to what it can prove it is actually doing. Careful evaluation of potential private funding sources would be needed to ensure objectives and intentions of private investors are consistent with the vision and mission of the European Network.

On a number of occasions interviewed organisation highlighted issues with finding funding and particular funding gaps. However, some project-networks have a well-established plan when it comes to funding. For example, IPMWorks sees its funding opportunities in the CAP budget expansion for the purpose of organising farm demo events. Moreover, the national focal points within the IPMWorks project will help the network to use and understand budget requirements of farm demo events. The project-network is also open towards private funding (supermarkets, etc.), even though the project is still looking for contacts. Chemical companies and the industry of pesticides, however, are not an option for funding the IPMWorks project-network, since the project does not want to have any issues with potential greenwashing whatsoever.

There are some additional examples of interviewed organisations that could not only serve as a role model for the governance and administration of the network, but also for the funding programme. An excellent example is the ENoLL- European Network of Living Labs, which was also initiated from the 6th EU Research Framework Programme, with a aim to create a stable network. Today, ENoLL has a business model of an association, with membership fees, participation in EU projects, and the organization of capacity building events and workshops. The membership fee differs between the type of member - effective membership (5000 EUR), adherent members (600 EUR), innovation partners (5000 EUR).

Additionally, the interviewed organisations have funding schemes dependent on public funding sources from ministries. In the case of FACCE JPI, the ministries finance the involvement of members of staff in FACCE JPI allowing their employees to dedicate time and to contribute to activities in FACCE.

Finally, as understood from the interviews (e.g. of the HESSE LL), the best way to find funding sources for the newly established network is to agree on well-defined objectives and clear sets of activities for which the funding will be raised and to target suitable funding sources to avoid issues of funding eligibility. The HESSE LL is a fairly new entity which strives to become a LL. In the second half of the year 2022, the association was working mostly on how to get funding for the huge image campaign for local producers – therefore for dissemination purposes. Additionally, the idea of the HESSE LL is to join the European Network of Agroecology LLs and RIs, increasing funding opportunities through cooperation in proposals under HEU Calls.

Lessons: Various funding schemes are used, including EU funding for project networks, CAP funding, national and regional public funding, funding from foundations and business models with membership fees paid by network members. Synergies of different funding sources (e.g. for different network activities) reduce the risk of funding gaps and the dependency on one particular funding source.

#### Capacity building

When it comes to capacity building, our research findings indicate that every organisation tackled these activities in a different way. However, the actions that the interviewed organisations carry out as part of their capacity building activities largely relate to skill sharing and knowledge exchange.



For example, LifeWatch ERIC built a lot of its activities around capacity building. However, the organisation focuses the work on capacity building in one geographical area, which could be an excellent example of how the network tackles task division and activities internally., In Seville (headquarters), LifeWatch works more on the financial management and ICT tools development, but the service center and capacity building activities are localized in Italy, etc. The capacity building in LifeWatch ERIC covers training on topics such as managing and using data platforms which were developed by LifeWatch ERIC, and virtual research environment – where researchers are educated to develop their data and then publish the data in the open repository.

ENoLL runs a series of training sessions and workshops on capacity building (e.g. methods for setting up living labs and business models for living labs), networking, creating synergy among partners, creates working groups (e.g. agricultural living labs), and engages team members in constant communication. In GRA one of the main target groups for the capacity building is young researchers working in the field of agricultural mitigation strategies. Scholarships for PhD students from countries in the global south are funded to do research for six months in another country. In addition, regular webinars and online meetings are organised. Another target group for capacity building are the compilers of the agricultural and national greenhouse gas inventories to improve the details and consistency of the inventories. In addition, capacity building is provided to senior researchers to advance their methodological skills. Capacities of network members are also supported by developing research infrastructure and training on how to use research infrastructures and equipment.

Capacity building in the DUT Partnership includes different activities, including training and workshops for urban living labs, based on the experience with JPI Urban Europe. The workshops are targeted at the managers of the LLs and provide the opportunity to exchange information on what is currently happening in their different LLs. The workshops are also used to discuss and identify with the managers how the capacity building activities can be further improved and what type of capacity building is needed. Other capacity building activities are more designed for, and open to, wider urban actors, such as the Urban Doers Grant, which is primarily targeted at NGOs, civil society organisations, small and medium sized businesses and entrepreneurs working on urban business transformation. One aim is to enable these actors to build networks and to synthesise the knowledge they gained in the Partnership activities, and thus also providing important input to the further development of the programmes and strategy of the Partnership.

Lessons: Involving the members in the planning of the capacity building programme ensures that the activities fit their needs, with different modules and approaches needed for different target groups.

#### **Data Management**

Another crucial point when it comes to building a sustainable network is the consistency of data, data flow, management, regulations, data storage, etc. Therefore, one of the topics in the interviews was data management and how it was achieved within the project-networks, networks of living labs and other organisations which were relevant for this research.

The ORGANIC FARM KNOWLEDGE project-network provides a platform which is open access. A lot of tools on the platform come from different sources, so the consent for sharing data has been provided by the authors. The platform is used by different stakeholders and therefore contains data of different kinds. Such platforms require common standards of data management and sharing.

As stated above, one of the core activities of LIFEWATCH ERIC is the development of data platforms and virtual research environments – where researchers can develop their data and then publish the data in an open repository. Therefore, LifeWatch has a developed a,data management plan, mainly based on the EOSC (European Open Science Cloud) recommendations. A well-implemented data strategy is crucial to improve transparency and



reproducibility in research and to foster a culture of continuous improvement and adaptation. Working groups have been set up that discuss different topics regarding data management, with specific groups for different data lifecycles or topics, for instance for artificial intelligence, for access and authentication, or use in modelling. The importance of regular workshops and training sessions for stakeholders was emphasised to disseminate good practices in data collection, storage, and analysis, fostering ethical data management practices and emphasising the importance of data in agroecology research and innovation.

Some of the interviewed project-networks do not deal with big data and only have to deal with issues in relation to personal data and the requirements of the GDPR. For example, the BIOFAIR project will produce policy briefs which will contain different data from scientific researchers. The data management plan of the BIOFAIR project provides guidance on how to deal with the personal data following and adhering to GDPR regulations. Several interviewed organisations referred to the importance of the GDPR requirements (e.g. ENAF, SMS) and stressed the need to include issues of ownership and data property rights in the statutory documents that need to be drawn up and agreed on when setting up the network.

Key lesson: Common and harmonised infrastructure and rules for data collection, storage and use are needed as part of a data strategy for the network, which also needs to consider important legal (e.g. data ownership) and ethical aspects.

#### **Cooperation and Engagement**

When we use the word collaboration, typically we are referring to actors meeting, working together and maintaining a dialogue. They need to engage with each other on the strategy to deliver its desired outcomes (Prager, 2015). When we use the word engagement, we are describing an organisation of people who know and care about the mission and vision and who feel personally involved (and engaged) in driving the organisation toward the mission. The difference is that when there is engagement across the organisation or a network, individuals can see that their work contributes to the success of the organisation. Individual organisations need to have a sense of unity and contribution to the network itself. Consequentially, it is important to understand how collaboration and engagement are treated in other entities similar to the future European Network of Agroecology LLs and RIs.

In addition to the scientific publications resulting from FACCE-JPI projects, communication tools addressing a broader audience are used. FACCE JPI works as an umbrella that promotes the setting up of initiatives and projects (e.g. ERA-nets) that foster and carry out capacity building activities.

In LIASON, as part of the project legacy particular attention was paid to cooperation with other project to establish a network of organisations that will work together on fostering innovation in agriculture. This engagement will occur on both national and EU level in the future, especially when adopting the living lab approach within the research.

In order to foster cooperation and engagement within the partnership, DUT organises two governing board meetings per year, which have a workshop character. These workshops aim to foster community building within the partnership, gather input on national perspectives and provide all members the opportunity to pro-actively contribute to developing activities. It is important that members have this opportunity to create a sense of co-ownership of the programme of activities. Similarly, in GRA engagement is facilitated through annual meetings of the research groups, research networks and the council. Engagement is further sustained by collaboratively applying to research calls and to work together on the funded projects.

Lesson: The interviewed networks are always seeking more engagement from the members, through different events, living lab concepts, demo days, workshops, open days. While different approaches towards engagement are in place, depending on the main activity of the network itself, regular events providing opportunities for network members to pro-



actively contribute to shaping the network's activities are important for fostering long-term commitment of network members.

#### **Communication and Dissemination**

The communication activities of every project, network and organisation are one of the main pillars to achieve wider impacts through the dissemination and exploitation of project results. For the future European Network, communication and dissemination play a crucial role since it provides the stakeholders with information on societal challenges which the network addresses and is a key element of the European added value of the network itself. Thus, communication activities target a much wider audience, not only interested parties but also the media and the general public. Some of the organisations we interacted with depicted the communication and dissemination activities as one of their core activities, and others stated that they are in fact of great value to their organisation. Communication and dissemination plans and strategies are key tools for planning and ensuring effective communication.

ENAF was created to harness the potential and capabilities of existing national and European networks to contribute more effectively to the agroecological transformations of agricultural and food systems in Europe. This initiative was spearheaded by the Agroecology for Europe (AE4EU) project. It has well-established channels of dissemination and communication. The channels include the website, the knowledge hub and videos and webinars on YouTube that have been produced during the AE4EU project and which might be transferred to ENAF. Within the network people meet on a regular basis, organise workshops and webinars and work on common goals.

The HESSEN Living Lab started with an ambition to improve communication of the organic farming sector to the political representatives in the federal state of Hessen. The political situation is so unfavorable that organic actors are not heard, and the members had to align forces with the Nature Conservation Associations, with all organic farming associations and civil society. The goal of the initiative is to establish an umbrella association to streamline and strengthen communication. Funding for implementing the marketing strategy is sought to improve communication through the home page, seminars, festivals, posters, fliers, and specific marketing initiatives.

In DUT, a communication team ensures good participation at relevantevents. To distribute knowledge and experiences from the projects that were funded different mechanisms are used, e.g. a series of Urban Lunch Talks and webinars on specific topics, targeted at different key audiences. It was highlighted that further attention is needed regarding the synthesis of new knowledge and how to improve the knowledge transfer through these syntheses, e.g. one approach is that journalists are bought in to contribute to these processes.

Lessons: Targeted communication and dissemination mechanisms and activities facilitate the successful outreach to, and engagement with, different types of stakeholders. While all the networks have well established social media channels and different means of communication amongst their members, further funding and ongoing investment is required for specific communication activities.

### 3.2 Reflections from actors across Europe

The first set of regional workshops in autumn 2022 focussed on challenges that LLs and RIs are facing in accelerating transitions to agroecology, including a reflection of funding issues and a first exploration of possible roles of a future European Network of Agroecology LLs and RIs in addressing those challenges. Building on the experiences and lessons for the implementation from other networks of networks, the second set of regional workshops further explored how a future European network can address problems and difficulties that LLs, RIs and other OIAs are facing in the transition process and reflected on key issues of implementation focussing on the themes that the European Network should address, the type of communication and networking



activities that are particularly needed, practical solutions for addressing funding gaps, and gaps in competences and the role of local actors to support development of competences.

## 3.2.1 Roles and contributions of a future European Network to address key challenges of LLs and RIs

Agroecology LLs and RIs face a variety of challenges related to the operationalisation and management of their research and innovation activities. Access to funding is a common challenge for most LLs and RIs. Important funding gaps exist for training and demonstration as well as maintaining infrastructure and networks (Schwarz et al., 2022). The discussions at the regional workshops reflected those key challenges.

Key expectations from a European Network are to foster co-learning and capacity building. In this context improving methodological skills and creating a common understanding of key concepts and methods were raised as important aspects. It is important to foster ownership of engagement, i.e. involved actors are convinced and motivated to engage in networking and cooperation, without necessarily receiving economic incentives for doing so. Activities of such a network can also contribute to developing trust between different types of actors (e.g. farmers, authorities and consumers) that at least in some countries is rather low.

Research projects engage with farms and local actors, but once the project is finished the engagement is discontinued. A long-term strategy providing continuity in the engagement of research and practice actors is needed. This also reflects that more time is needed for farmers to implement new and innovative practices which have been co-constructed during a project (e.g. another two years following a four-year project). Time needs to be accounted for to evaluate experiences and results, and potentially enable adjustments in implementation. This is also particularly important for scaling up findings to wider applicability. Scaling up sustainable agriculture practices from small experimental farms to larger real-life farms is another significant challenge. While it is easier to test and implement new practices on a smaller scale, it becomes much more complicated to replicate them on larger farms. A potential role of a European Network was identified in guiding and supporting the monitoring and evaluation of initiatives (projects) under the umbrella of the Partnership.

Participants raised the expectation that the combination of LLs and RIs can improve data access for research and innovation activities in LLs. However the question of the measurability of results and how to run and use demonstration farms was raised, so that these results apply to real-life farms and at the same time fulfil scientific standards, e.g. enabling group comparisons or yearly assessments in evaluation. In addition, wider and encompassing sustainability assessments of farms and farming systems are time and resource-intensive, or lack details on specific issues. Data for specific issues or topics, e.g. nutrient management, can be collected and analysed, but consistent data and results across a wider range of themes and issues for sustainability assessments of farms are the main subject, then data on biodiversity or social impacts are not collected).

Challenges for research organisations also arise from the transdisciplinarity of research with LLs. The traditional metrics of conventional research with number of publications in journals with high impact factors is not suitable for measuring success of LL research. Adjustments of the evaluation of (transdisciplinary) research would ideally be coordinated internationally and a European Network could promote and support such processes. In addition to transdisciplinary research, participants (from Northern Europe) highlighted that also traditional disciplinary research still has an important role to play. In this context the role of a European network was seen in enhancing synergies between disciplinary and transdisciplinary research. It was highlighted that political science is sometimes overlooked



and not included in LL research, but it is important to better understand governance mechanisms of networking and cooperation in transitions to agroecology.

Advisory services are a central actor for LLs with the important role of knowledge transfer and facilitating the transfer of innovations implemented on a particular farm to other farms. Several projects have developed data collection and dissemination tools (Decision Support Tools - DSTs) to foster communication between advisors, researchers and farmers. The planned European Network could address questions concerning the long-term provision of tools and databases to help promoting continuity in implementing and upscaling innovations and also further analyse what is needed from research infrastructures.

Advisory services could take on a facilitator role acting as a network manager beyond the duration of the project to promote continuity and to achieve a common understanding of key concepts, methods, challenges and solutions. Positive experiences with advisory services taking on such roles were cited both from Europe and the US. Opportunities for training of advisors through a capacity building programme of a European Network could be explored. But participants highlighted that this would be linked to several issues. One issue is funding, as funds are often only available within a particular project. If the person is only employed as a network manager for the specific project, reaching continuity is questionable, as persons often move on to new tasks and roles after the end of the project. Here it is important to work with advisors who are only partly financed by the project but have other long-term funding to continue their work and act as a network manager. It is also important that the person is a trusted advisor, has a good standing in the community, is experienced in providing advice and is familiar with the topics. But farms which are not members of a particular association can have difficulties in getting access to advisory services.

The coordination and facilitation of connecting actors can require going beyond farming (depending on the thematic focus of a LL), including value chain and other rural actors. This necessitates flexibility in running the LL or network. Coordination contact points could be established that can accompany LLs with an important role in initiating contacts and the exchange of ideas across actors in the value chain. Value chains can have an important role in promoting continuity of the LL. Sustainability criteria in value chain businesses increase in importance and depending on the topic and thematic focus of a LL, lessons could also be learnt from the experiences of existing food policy councils and producer-consumer associations. But long-term infrastructures and networks for value chain involvement are needed. And roles, approaches and outcomes of participation need to be advocated. This requires institutions, such as a European Network, that increase the visibility of LLs to a wider audience to highlight the benefits and purposes of participation.

It is important to do a stakeholder and social network analysis at the beginning of the LL to understand relationships and required governance levels to address the sustainability issues and identify actors that need to be considered in the LL. A challenge is to ensure that civil society is not only involved at the end of the development but is involved from the start (to different degrees depending on the topic), with citizen science playing a central role. It is necessary to consider consumers as actors who are affected by agricultural activities.

Concerns were raised, in particular for an Eastern European context, that consumers tend to be price-sensitive and (agroecologically produced) goods at higher prices might not be bought. This financial uncertainty makes it risky for farmers to switch to agroecological practices if they are not financially compensated.

LLs build on a place-based concept. Within this place-based concept particular locations are known, used and accepted by different actors and important to transfer knowledge out of the LLs. Such a place-based approach would also help research infrastructures to ensure particular relevance of their results for the specific local contexts. This was also indicated by experiences in the Netherlands, which highlight the importance of embedding the challenges of the farmers and farms within a regional context. This is done through regional LLs that



address regional challenges (including economic but also social challenges) and the establishment of networks of regional actors.

Particular attention needs to be paid to the means of communication and approaches to engagement with farmers. Communication and engagement should reflect equal footing and appreciation of farmers. The purpose of engagement goes beyond data collection with farmers having an active role in the decision-making processes of LLs. Suggested mechanisms to improve communication and engagement include briefing of young or unexperienced researchers at the beginning of a project on the specific aspects and requirements of cooperation with farmers, with guidance and practical advice provided throughout the project. An even more effective option can be to ensure that the communication and cooperation strategy is explicitly explained in the research proposal to ensure that this is considered from the beginning.

Farmers who already participate in LLs have a high intrinsic motivation. But a challenge remains how to reach other farmers and actors. Risks for farmers of participating in LLs need to be addressed (e.g. in case experiments fail) and conflicts with policy funding rules were highlighted that affect the willingness of participation. And while climate change related challenges might potentially increase motivation of farmers to change farm management and take part in LLs on AE transition, not all farmers can be reached through LLs and AE transitions. Farmers will look for measures and tools for sustainable farming, only if these also generate an economic benefit. Here policy might have an important supporting role in establishing this link. LLs can pilot the implementation of policy measures that help to establish a link between sustainability objectives and the economic viability of the farms.

In this context the participants highlighted the need for the European Network to be well connected with the different levels of policy-making. Many LLs operate at the local level, which implies engagement with policymakers from local authorities and municipalities, who are well positioned to understand the particular issues faced by LLs in their area and context. Through their communication channels, these local policymakers can then help to reach higher-level policymakers at regional and national levels. By building these connections and networks, it may be possible to create a more cohesive and effective approach to promoting sustainable agriculture practices across different levels of policy-making.

Different funding sources are used in the LLs and RIs, with national public and regional public funds from different ministries as well as EU funding being key sources. However, participants from Eastern Europe highlighted that funding from national governments is relatively low and not easy to obtain due to geographical differences and corrupt systems. EU project funding can be highly competitive and time-consuming to request. Funding requirements are often too restrictive for research and innovation actions in LLs. The challenge is to create a funding environment that provides the flexibility and fosters co-creation with a diverse set organisations and actors, which is essential for real transformation. Co-developing funding proposals has a cost, which needs to be considered in pre-funding models. Further elaboration and consideration of such pre-funding models is needed. Also, funding rules need to consider the opportunity cost of participation of farmers (e.g. at time spent at project meetings and not available for work on the farm).

In addition, Eastern European participants raised the possibility of involving (or forming) private start-ups using venture capital as an addition to EU funds, which is less bureaucratic and faster, particularly in the agricultural sector where there is a lot of interest in innovation and new technologies due to underdevelopment. But venture capital requires constant strong growth and investors often want a say in the outcome of the work, raising concerns about farmers being used as 'guinea-pigs', making it less suitable for LLs and RIs, and unappealing for farmers.

Experiences also show that small, publicly visible projects are easier to fund than larger, more impactful long-term projects. Generally, project related funding has a short timeframe of a few years that does not align with the requirements and conditions of co-constructing on-farm research and innovation actions. The need for longer term funding with a horizon of



(e.g.) 15 years was emphasised, which would also support the long-term provision of tools and databases through research infrastructures. Participants at the Northern regional workshop raised the issue of institutionalising LLs and the role of private companies and businesses in upscaling innovations from LLs. A European network could foster capacity building on how to institutionalise LLs that are acting as incubators for innovations in transitions to agroecology and on the long-term processes of upscaling the innovations (social and technological) to larger scale application by companies and businesses. Participants at all four workshops also expect from a European network practical solutions such as collaborating in fundraising, data management or equipment usage.

Based on the discussions of the challenges and issues of LLs and RIs, workshop participants explored and identified possible roles and contributions of a European Network relating to strengthened networking and collaboration, strengthened knowledge creation, exchange and diffusion resulting in further improvements in organisational aspects of the LLs and RIs and supporting long-term continuity strategies. The following box summarises possible key roles of a European Network suggested by participants of the first set of regional workshops.

#### Roles and contributions of a European Network

- To showcase effective solutions for dealing with the challenges posed by climate change and pressures such as droughts on the continuation of farming activities, fostering the adoption of more sustainable farming practices
- To ensure good information flow and a wider reach of actors on the ground, the European Network should be linked to national-level networks, although the discussion indicated that such networks are not yet established in all countries.
- To facilitate transnational exchange of experiences of LLs and RIs and their members (including learning from more mature and long-established initiatives). Regional clusters could focus on specific thematic priorities of particular regions. Thematic sub-networks would enable a prioritisation on particular key themes without a regional focus. Initial suggestions for key themes and topics for knowledge exchange and capacity building through a European Network included:
  - standardised approaches for data management plans building on experiences from different institutions across Europe,
  - methodological guidance on developing and managing LLs (including criteria and key characteristics of LLs, key success factors considering the perspectives of different actors and guidance on overcoming challenges in successfully setting up and running LLs, long-term involvement of actors and integration of new actors over time)
- To promote the continuity of research and innovation actions, e.g. by addressing fragmentation of farming and research sectors, providing tools and databases supporting long-term and transboundary data collection and management of interdisciplinary experiments, and guiding and supporting monitoring and evaluation of initiatives under the umbrella of the Partnership
- To provide practical solutions for addressing funding gaps, e.g. through guidance on, and coordination of and collaboration in, fundraising, operational challenges (e.g. coordination of common data management or facilitating cooperation in equipment usage), and institutionalising LLs and processes of upscaling innovations (social and technological) to larger scale application by companies and businesses.
- To foster policy dialogue, thereby increasing the understanding and engagement of policy stakeholders in LLs and more generally in agroecology transitions, considering that local policymakers are better positioned to understand the particular issues faced by LLs in their area and context.

Figure 2 Summary of roles and contributions of a European Network suggested by participants of the first set of regional workshops



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## 3.2.2 Key issues for the implementation of a future European Network

Based on the lessons for the implementation from other networks of networks (section 3.1), the second set of regional workshops in spring and summer 2023 further explored key issues for the implementation of a future European network. Complementing the exchanges with the pilot network (section 4), discussions aimed at improving the understanding of which thematic areas and what kind of activities as part of the European Network would be particular useful for AE LLs and RIs across Europe. The focus was on insights into topics, themes and issues that the European Network should address, types of communication and networking activities particularly needed, practical solutions for addressing funding gaps, and capacity building including regional gaps in competences and the role of local actors to support development of competences. Insights on capacity building are reported in Cavallo *et al.* (2024).

#### Topics, themes and issues that the European Network should address

While the severity and phases of its evolution differ, severe drought and other challenges in relation to climate change mitigation and adaptation affect farming across Europe (Toretti *et al.*, 2023)). Participants across the regional workshops have identified lack of precipitation, heat waves and water management as key challenges for future farming with farmers being on the verge of abandoning their businesses. This is not only of relevance on the Iberian Peninsula but has also been highlighted for Eastern Europe and the Baltic Sea region. The lack of water in wells exacerbates the situation and poses a severe threat to farming in these areas. Encouraging farmers to adjust their farming techniques can be a challenging task due to their, sometimes entrenched mindset. However, participants showcasing effective solutions for dealing with the challenges posed by climate change may help to convince farmers to adopt more sustainable and resilient farming practices.

One question that has arisen in the workshop discussions is how to encourage farmers to reduce their inputs to improve soil biodiversity and health. Participants suggested the possibility of using mainstream media to raise awareness of the benefits of sustainable farming practices and showcase the results of successful case studies. This can help trigger the interest of farmers in practices that promote soil health while also emphasising the broader socioeconomic aspects of sustainable agriculture. By promoting the idea that sustainable farming practices can lead to both environmental and economic benefits, farmers may be more willing to adopt new practices that prioritise soil health and biodiversity.

In the context of improving soil health and increasing drought resistance, participants emphasised the importance of traditional varieties and landraces, and the potential for the reintroduction of underutilised crops providing benefits for ecosystem services such as pollination services and soil stabilisation. A potential theme for the European network dealing with the management and improvement of the genetic diversity of cropping systems would also need to cover aspects of high-quality seeds and highlight the benefits for water management. Further identified topics relate to carbon farming, the role of livestock for soil health (e.g. through higher permanent soil cover of litter and plants in grazing systems reducing soil erosion and reduced or eliminated use of inorganic fertilisers) and indicator and monitoring systems for soil health.

Improved crop rotations benefit from synergies between crops in the temporal sequence and (or) in the same space. Such crop rotations with a higher diversification of crops are key strategies to support agroecosystem functioning that keeps soils fertile and plants healthy since synthetic pesticides are prohibited (Barbieri et al. 2017, Frelih-Larsen *et al.*, 2022). In addition to crop rotation, participants also highlighted further aspects of improved management of cropping systems including the use of software systems, cost management, early detection of disease, human resource management, and pest management.



Agroforestry is a multifunctional land use system that is recognised for its role in a transformation to sustainable agriculture and its potential to address societal problems such as loss of biodiversity, deforestation, overdraft of and threats to the long-term supply of water, and greenhouse gas emissions (Buratti-Donham *et al.*, 2023, Schwaab *et al.*, 2015). Workshop participants recognised the importance of agroforestry and emphasized the need for further knowledge exchange on addressing challenges in implementing agroecological agroforestry systems. Reference was made to possible cooperation and synergies with the AF4EU project and the Regional Agroforestry Innovation Network as well as research carried out by the Global Research Alliance.

More generally, participants highlighted the importance of enhancing the knowledge on the principles of agroecology (HLPE, 2019) and how to apply these in practice in farming and food systems. In addition, the need to address topics in relation to the economics of agroecology was highlighted. This could include business models adapted to small-scale agroecological systems, enhancing short supply chains through improved infrastructure and logistics chains.

Further themes identified in the workshop discussions relate to the governance of agroecology transition and systems level approaches. Participants highlighted the importance of the territorial scale of governance allowing for support structures and resources to be tailored to specificities of place and increasing the potential for mobilising resources and cooperation to further advance agroecology transition within a particular territory or place. However, territorial governance approaches were seen as complex and new approaches for many stakeholders, highlighting the need to learn from experiences existing in some European countries (e.g. France, Italy and Spain). The European Network could in particular utilise experiences from the Biodistricts in Italy over the last 15 years (and similar initiatives in other countries such as the food territories in France), including the legal requirements ,criteria and policies that support the implementation and management of Biodistricts.

Advancing agroecology transition requires a range of actions from food system actors, including initiatives that go beyond agricultural production to include processing and retail and that develop the demand side (Zawalińska *et al.*, 2022). The main role of such a European Network was also seen in raising awareness of topics and impacts of transitions to sustainable food systems for wider society (e.g. social aspects of access to healthy food), which has the potential to increase motivation of wider food systems actors to engage in LLs and transitions to agroecology. Knowledge creation, exchange and dissemination on food system approaches is suggested to involve actors from logistics, food services, food processors, retail, and farmers, also fostering their involvement in a policy dialogue. This is to empower local actors to be actively involved in the development and governance of food systems.

Across all four regional workshops participants highlighted the need for an enhanced use of digital tools for monitoring environmental impacts of agroecology transition and for frameworks and tools for evaluating the impacts of LLs on advancing transitions to agroecology. Particular needs were also identified for the use of data collection tools, the harmonsation of data collection and use, and the promotion of open access to data on agroecology transition.

Some of the identified themes to be addressed by the European Network are at the core of other Horizon Europe Partnerships and Missions (e.g. soil health – Soil Mission) and would need to be addressed in close collaboration with the other Partnerships and Missions. While there were some differences in the identified topics that a European Network should address (e.g. due to different experiences with the LL approach), there was a large overlap of key themes across the regional workshops, potentially indicating that thematic working groups would be a more adequate mechanism than regional clusters or sub-networks.

Figure 3 provides an overview of key themes for the European Network suggested by the participants of the regional workshops.





Figure 3 Topics, themes and issues that the European Network should address

#### Communication and networking activities that are particularly needed

Workshop participants raised concern about a fragmentation of the farming sector and as well of the research sector and expressed the expectation that the communication and dissemination activities of the European Network should bring the two sectors closer together, ensure a better internal coordination of research activities and improve the integration with practice. Often the short duration of research projects and the predefined scope imply that coordination is not sufficiently prioritised. A second more general point that participants highlighted is the need to differentiate in the implementation of the European Network between communication within the network and with the wider community of actors engaged in agroecology transition.

Participants emphasised that communication and dissemination activities need to support and promote a change in the cooperation culture between research and practice, and thus in the governance of LLs. Working in a LL presupposes a new identity for both researchers and practitioners. Participants reported experiences that the way research institutions are working with farmers and other practice actors is often contradictory to the concept and participatory process of LLs. In this context, participants suggested that practice actors also should be provided with the opportunity to contribute to the coordination of LLs and to lobby this new process of doing of research. Coordination of LLs should not necessarily be led by research organisations but also by other actors to balance power relations. The uptake of a coordinating role by other (non-research) actors (e.g. farmers association or environmental conservation organisation) could be a criterion for setting up LLs.



A particular challenge for the communication and dissemination activities is the diversity of target audiences. This requires both activities that are specifically tailored to one target group or type of stakeholder and system-level communication across several target audiences. Communication activities for a specific target audience need to match the demands of the particular type of stakeholder and use an adapted language. Participants emphasised that workshops need to be organised through a lens of the target audience, to make it interesting for them and considering their particular background. Peer to peer learning is seen as an important mechanism for the communication and dissemination activities and the European Network to facilitate establishment of peer to peer learning between different LLs.

At the same time participants (e.g. at the Northern regional workshop) highlighted the need for greater system-level communication between different types of stakeholders, which is seen as a key communication task for the network to build a holistic and systemic vision for agroecology transition based on robust multi-stakeholder discussions (including consumers). The European Network should enable such multi-stakeholder discussions, the results of which should feed into the strategic objectives of the partnership. In addition, participants of all regional workshops expect communication and dissemination activities that are targeted at different levels from EU-level lobbying (providing a stronger voice for agroecology transition in EU-level policy-making) to reaching actors at the local level.

The discussions at the regional workshops emphasised the importance of different forms of communication beyond scientific information. Participants identified a need to experiment with different forms of knowledge exchange, especially participatory and open exchanges which support peer to peer learning and community building. In large groups and events, it is challenging to build relationships and foster human connections. Specific and different formats and tools need to be explored. A "storyfication" of experiences was highlighted, stressing place-based differences and impacts. Impacts of transition narratives and experiences are enhanced by the co-design of contents and presentations of supporting evidence from the perspectives of stakeholders with different roles in food systems.

Participants emphasised the fundamental role of data and evidence-based communication to inform the decision-making of farmers, policy-makers and consumers, e.g. to convince farmers to take up sustainable farming practices. While data are often available, the use of data for communication needs to be enhanced, including the translation of data into easy to understand information. Participants highlighted the availability of decision support tools such as TAPE (Mottet et al., 2020) and SMART (Landert et al., 2020) that have the potential to provide data and evidence for knowledge transfer and stressed the need to further examine and enhance their use for knowledge transfer and to support decision-making across a wide range of conditions.

Clear guidance and information are needed on how to get involved in the network and how to cooperate (both within the European Network but also within LLs and between LLs and RIs). With the many different labels and types of LLs that are currently promoted in the European research environment and funding programmes (soil LLs, agroecology LL, climate LLs, rural LLs, farm LLs, etc.), participants reported uncertainty amongst stakeholders regarding what a LL is, highlighting the need to clearly communicate this concept and help different stakeholders understand how they can become involved in a LL or in developing a LL. Participants noted that this would be particularly helpful, if such guidance would be developed (or at least be co-developed) by farmers and other actors engaged in LLs. The language has to be attractive and transparent. Guidance on cooperation between stakeholders in LLs and RIs could utilise platforms and be complemented by the organisation of visits to share good examples from countries across Europe.

Figure 4 provides an overview of key issues for the communication and dissemination activities for the European Network identified by the participants of the regional workshops.





Figure 4 Key issues for communication and networking activities

#### Practical solutions for addressing funding gaps

Workshop participants explored practical solutions that the European Network could support to address funding gaps. Several suggestions were provided on how LLs could sustain themselves, including using overlapping funds from different research grants, which implies that there will be sufficient funding beyond an individual project, but also requires continuous fundraising activities which may disturb the core purpose of a LL. Practical solutions that the European Network can provide include guidance on funding acquisition, including sharing good and successful experiences, and how to communicate and translate the values that a LL or RI provides to different funding organisations. Participants highlighted the issue of double funding (e.g. funded activities of a LL overlap with farm management activities covered by CAP payments), which entails the risk of cuts in CAP payments for farmers. The question was raised if the European Network could provide strategic advice to farmers how to deal with this risk and how to negotiate with funders and authorities. Participants across the regional workshops proposed that the European Network could provide guidance on collaboration in fundraising and take on a coordinating role of such efforts.

Funding for basic operational support for LLs or RIs is lacking from national governments (e.g. maintenance of orchards as labs and infrastructures). Participants suggested that the European Network can provide support to address operational challenges of LLs and RIs, e.g. through coordination of common data management or facilitating cooperation in equipment usage, reducing the cost of the LL or RI.

Co-developing funding proposals has a cost for farmers and other stakeholders involved in LLs and RIs. Participants emphasised that such cost need to be considered in pre-funding models, financing activities in the involvement of developing proposals. Further elaboration



and consideration of such pre-funding models through the European Network would strengthen the involvement of practice actors in LLs and RIs. Also, funding rules need to consider the opportunity cost of participation of farmers (e.g. time spent at project meetings and not available for work on the farm).

Participants suggested that the European Network could develop a set of recommendations to funding agencies and ministries on what kind of funding structures and requirements are needed to support transformative change in farming and food systems, while at the same reducing bureaucracy.

In addition to securing public funding over the long-term, participants also emphasised the importance of considering business models for LLs that reduce the dependency on public funding. Experiences from start-ups in the agricultural sector were reported, which indicate that sometimes farmers are more willing to try innovative ideas and technologies when there are no subsidies or public funding available. Rules and requirements of public funding can act as a barrier to innovation. The implementation plan of the European Network should give attention to opportunities for LLs and RIs to generate revenue streams complementing public funding. Guidance on developing business models for LLs and RIs and how to generate revenue streams was desired by participants across the regional workshops.

Gradually phasing in of private funding was also suggested as a long-term funding model for the European Network. Participants expressed the expectation that there will be various sources of private funding available, including businesses and foundations, when the Network is up and running. But private project partners need to be able to see the benefit of the activities in the short term and therefore may not initiate activities on their own.

	/	Guidance on funding acquisition and on translation of values to funders
Thematic priorities		Coordination of collaboration in fundraising
mematic promies		Guidance on successful revenue generation and business models
Types of communication and		Provision of support for operational management of living labs
dissemination activities		Supporting common data management and cooperation in equipment usage
		Elaboration of pre-funding models for proposal development
funding gaps		Recommendations to agencies and ministries on funding requirements
		Supporting funding continuity through gradually phasing in private funding

Figure 5 provides an overview of practical solutions for addressing funding gaps through the European Network, suggested by the participants of the regional workshops.

Figure 5 Practical solutions for addressing funding gaps



## 4. Recommendations for the implementation of the European Network

Recommendations for the long-term implementation of the European Network were codeveloped with the pilot network, integrating the lessons from the other networks of networks and from the regional workshops with experiences from the pilot network activities. The recommendations were structured along the dimensions of the framework of factors of success for the network implementation (section 2.2.3) and are summarised in Table 4.

The basis for the implementation of the European Network is a common vision and mission to ensure a common understanding of the purpose, ambition and objectives of the Network amongst the diversity of members and to maintain a focus of the network on key objectives. Such a common vision and mission require frequent reviews and updates (e.g. every two years). Pilot network members highlighted the importance of commonly defining the expectations and benefits of members to avoid misunderstandings and unnecessary dropouts.

Concerns were raised that the emphasis on agroecology might lead to organic partners dropping out and engaging in other networks, due to perceived competition between these two concepts. Clarity is needed about the benefits and win-win for organic LLs when they are part of a European Network that takes conventional farmers on board as well. The relationships between organic farming and agroecology could be taken up in forthcoming events of the European Network and / or the Partnership focusing on commonalities and differences between the two concepts and the way to go forward.

The European Network will include a diverse range of LLs and RIs with experiences differing in terms of organisations, objectives, approaches, thematic expertise and the level of expertise in running an initiative. While this diversity increases the complexity of managing the Network, pilot network members emphasised the advantages of fully embracing the benefits due to the diversity of its composition, profiting from a wide range of different experiences and expertise valuing place-based innovation and research and transdisciplinarity, and offering a space for open dialogue between stakeholders and between disciplines.

Pilot network members emphasised that time will be needed to establish the right governance of the Network and the openness required to adjust the governing approach. In addition, the size of the Network will change over time. The governance of the Network thus needs to be adaptive enabling consolidation processes and activities, including time to develop relationships that permit trusted open exchange, the review and adaptation of governance processes, and the further evolution of the network infrastructure. The implementation of the Network needs to take into consideration a potential tension between the urgency to develop effective solutions and the patience required for developing trusting collaborative relationships for effective co-creation.

Adequate resource allocation for network management is a critical issue for the network governance. Pilot network members emphasise the need to include funding for managing and driving the network activities in each proposal. Experiences from other networks of networks and feedback from the EAB highlight the importance of having dedicated full-time staff members for the different management and coordination activities (e.g. in relation to the overall network coordination, science integration, management of knowledge and innovation, and data management) and suitable governance structure for the Network (e.g. including a permanent network secretariat, governing board, stakeholder advisory board and a general assembly). Pilot network members stressed that further development of the governance of the European Network needs to be conducted collaboratively by network members at the beginning of the Partnership AGROECOLOGY, resulting in a statutory document.

Funding of transdisciplinary networks and their long-term implementation and management require flexibility to adjust funding contracts and imply accepting changes in network



governance. The availability of long-term funding can be negatively impacted by changing higher-level political objectives and uncertainty about budget availability. Political support and long-term commitment of public authorities is therefore crucial.

Pilot network members identified different potential sources of funding for networking activities amongst LLs and RIs. Experiences include the use of funding from the Rural Development Programmes, EU projects, national and regional ministries including competitive calls, a diverse range of stakeholders involved in the LLs contributing to funding, and LLs compensating a small amount of the costs by themselves. Concerns were raised about funding for the network from big companies, as this might lead to ethical conflicts and to some members (example of organic players raised) leaving the Network. Acceptance of private funding for the European Network should be properly evaluated by a committee to address potential ethical concerns.

Recommendations to mitigate funding uncertainty include outreach activities to national ministries and generating their own revenue streams to be less dependent on public funding. Challenges and potential advantages of implementing a membership fee were discussed, as a means to generate revenue for the Network. A detailed explanation and justification of a membership fee is required to ensure that all members of the European Network understand what the fee pays for. However, concerns were raised about the feasibility of fees for members (e.g. it was indicated that the fee in the ENoLL is not feasible for every LL). Pilot network members stressed that providing education on the added value of the network (e.g. including the creation of knowledge on what is a LL, what is the value added, and what is the strategic importance of investing in LLs in addition to investing in scientific publications) leads to higher acceptance of the membership fee by member organisations. It is important to make the benefits of joining the European Network visible to convince LLs and RIs to invest in a membership fee for such a European Network.

In addition to membership fees, other funding ideas were explored. This includes funding through fees for specific services the European Network provides, e.g. participation fees for specific in-person events, webinars and training. It was suggested that such an approach might also help to better understand what brings the most value to the European Network.

Robust data management is a key issue for the long-term implementation of the European Network. Given the global nature of agroecological challenges and the Europe-wide scope of the Network standardised data collection and analysis protocols are important to ensure data integrity and comparability. Pilot network experiences confirmed the need for developing guidelines and protocols to support agroecology data harmonisation. The Network should foster collaboration amongst participating LLs and RIs to establish a secure centralized and easily accessible data repository, adhering to FAIR principles and ethical data management practices, and enabling efficient data sharing among partners. But plans are needed to mobilise and fully utilise the data, going beyond archiving data into a common repository. Legal advice and expertise are needed that consider differences between countries, and also address the issue of ownership of new knowledge generated through activities of the European Network.

Several risks for the successful implementation of the European Network have been identified. The pilot network members identified network and stakeholder fatigue as the most important risks to consider. One reason is the high number of existing networks that compete for the engagement of stakeholders in the agricultural and rural development arena in Europe. In this context, the experiences with the pilot network highlight the importance of paying attention to the right facilitation approaches, engagement tools and techniques to keep stakeholders involved in, and excited about, the European Network and of consistent and frequent updates of the website.

Table 4 provides an overview of the recommendations structured along the dimensions of the framework of factors of success for the network implementation.



Table 4 Overview of recommendations for the successful implementation of the European Network from the pilot network

Purpose and target	Network governance	Funding issues	Policy dialogue	Thematic areas
Ensure common ground	Use adaptive governance	Include outreach activities	Organise policy co-	Knowledge sharing and
and understanding	to respond to changes in	to national ministries to	creation events involving	networking to be
amongst the diversity of	size and experiences of	safeguard long-term	all members and policy	accompanied by
organisations and of	members	funding for specific network	stakeholders from across	transnational research
objectives	Important to differentiate	activities, e.g. permanently	the network	Review priority setting of
Establish common mission	between strategic and	Tunded agroecology advisor	Publish and organise	thematic areas as part of
and vision, and ensure	operational level of	Generate revenue streams	annual policy briefings at	the development of annual
regular updates, e.g.	network governance	to reduce dependency on	different levels based on	workplans
every two years	Ensure availability of	public funding	network activities	Candidate themes include
Maintain focus of the	dedicated full-time staff	Establish an evaluation	Target policy influence	agroecology as a revenue
network on key objectives	for managing and driving	framework for private	also at national, regional	model, conservation
and activities	the network activities	funding	and local levels	farming and one health

IPR and data management	Risk factors	Communication and dissemination	Upscaling of the network	Any other issue
Set up plans for mobilising datasets - not just archiving into a common repository Develop guidelines, and protocols to support agroecology data harmonisation Provide legal advice and expertise considering differences in laws between countries, and regarding ownership of new knowledge	Pay particular attention to risks that relate to funding, focus of the network and engagement of stakeholders Ensure tangible opportunities to engage in person or via webinars Pay attention to the right facilitation tools and techniques to keep stakeholders involved and website continuation	Map network members and their interests and engagement commitments Be clear about audiences and their contributions and roles in the network to target activities Enhance communication with other similar networks in other scientific domains Use very clear language for publicising the network and its benefits	Scale up the network (including its infrastructure) step by step with consolidation in-between. Ensure close cooperation with other thematically related European partnerships and missions Support the development of LLs / RIs at a local level by national ministries to foster diversity in the network.	Support the building of connections and relationships between participants of LLs/RIs, not just the managers and coordinators



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## **5.** Conclusions: Synthesis of key factors and policy recommendations

The overall objective of this report was to derive preconditions for the sustainability of a European Network of Agroecology LLs and RIs based on the identification of key success factors impacting on its sustainable long-term implementation. The report analyses and synthesises key factors for the sustainable long-term implementation of the European Network of Agroecology LLs and RIs based on the mapping activities in WP2, additional empirical data collection done through interviews with a selection of networks of networks within the European and international agricultural and rural development arena, regional workshops with agroecology LLs, RIs and funding organisations across Europe and participatory engagements with the pilot network. Recommendations are derived for the sustainability and the long-term success of the European Network informing the strategic guidance for its implementation plan (Schwarz *et al.*, 2024).

A European Network of Agroecology LLs and RIs is a major component of the Horizon Europe Partnership AGROECOLOGY. Agroecology LLs and RIs face significant challenges, particularly in terms of funding constraints, which the European Network can help address. The network has the potential to support inclusive place-based innovation that accelerates the transition to agroecology at the local, regional, national and European levels. Its main benefits lie in strengthening collaboration, raising awareness, addressing funding gaps and promoting value chain solutions. Reaching the full potential of the European Network requires a long-term strategy and a common understanding of key factors impacting on its successful implementation and evolution over time (including the governance of the network and its funding, thematic priorities, communication and dissemination activities, IPR and data management, and policy requirements and dialogue).

The European Network of Living labs and Research Infrastructures follows an "assembled" model of network creation, whereby existing or new components are gathered together into a unified but heterogeneous network. Among its component organisations, such a network may display a much greater diversity of objectives, funding sources and timelines, and implementation models. The heterogeneous nature of the assembled European Network of AE LLs and RIs needs to be reflected in its implementation and management and has implications for the supporting policy and funding environment.

The European Network will include a diverse range of living labs and research infrastructures with experiences differing in terms of thematic expertise and the level of expertise in running an initiative. Enabling adaptive governance that responds to changes in size and experiences of its members will utilise the benefits from and values of, the diversity of its composition. The heterogeneous nature of the network requires the allocation of adequate resources for network management and coordination.

Allowing for consolidation processes and activities is a key factor of success for the longterm implementation of a heterogeneous network. Time is needed to develop relationships enabling trusted open exchange, to establish, review and adapt governance processes, as well as objectives, values and activities of the network, and to develop and evolve network infrastructure.

The complexity and diversity are success factors for the European Network of Agroecology LLs and RIs, but they also make its implementation challenging. Related key issues are the coordination and integration of activities, the high number of transactions and risk of meeting fatigue, and the utilisation of additional benefits such as enhanced network resiliency.



Generating evidence on the benefits of developing and participating in the European Network fosters buy-in and commitment from funding organisations and LLs and RIs. This requires the development of tools or approaches to monitor and evaluate the performance of the network in a transparent and sound manner.

A further key factor in facilitating knowledge exchange, data sharing and integration of scientific methods and results between living labs and research infrastructures is the development of guidelines and protocols to support data harmonisation and mobilisation.

#### Key success factors for the implementation of the European network

- Adaptive governance responding to changes in size and experiences of its members
- Adequate resource allocation for network management and related governance structures such as a permanent network secretariat
- Step-by-step development of the network importance of network consolidation
- Developing approaches to enhance network coordination, and for monitoring and evaluation of the performance of the network to provide evidence on benefits of creation and participation
- Focus of activities on knowledge sharing, networking and demonstration across Europe to be complemented by transnational research
- Outreach activities to ministries to ensure long-term funding for specific network activities, and generating revenue streams to reduce dependence on public funding
- Developing guidelines and protocols to support data harmonisation and mobilisation
- Addressing legal differences across countries and issues of ownership of knowledge

Figure 6 Key success factors for the implementation of the European network

The pivotal role of agroecology in supporting key European policies, such as the Green Deal, is widely recognised by European Institutions. The Horizon Europe Partnership AGROECOLOGY with its European Network of Agroecology LLs and RIs is an important investment in promoting research and innovation on transitions to agroecology in the next 7 – 10 years. Long-term funding beyond the duration of the Partnership is vital and long-term political and financial investments are needed at local, regional, national and European levels.

Research policies and flexible funding mechanisms need to accommodate adaptive governance and embrace the changing roles and responsibilities of different types of actors and dynamic action plans of the network. Further research is needed to understand the impacts of different types of networks on successful long-term implementation and governance. Funding programmes need to encourage such research into defining network types and their characteristics as these have implications for how a network functions and how such large-scale networks of LLs and RIs may need to be supported by both policy and practice. Figure 7 summarises the policy recommendations.

The analysis of the experiences of a similar network of networks improved the understanding of key factors for the sustainable long-term implementation of the European Network. The identified key success factors and recommendations support the prospective members of the European Network to develop the implementation plan for the governance, funding and activities of the European Network so that the network can best respond to the expectations



of the agroecological community in Europe. Lessons learnt on key challenges of LLs and RIs, and on the contribution of the network to addressing these challenges, will inform the development of further methodological guidance for the LL approach and the definition of the requirements and conditions for effectively integrating the LL approach with RIs in the Partnership AGROECOLOGY, closely involving policy-makers and funding organisations at European, national and regional level.

Policy recommendations to harness the potential of the European network

- Recognize in research and funding policies the long-term nature of network implementation and required continuity in political and financial investment that go beyond standard R&I project cycles.
- Design research policies and provide flexible funding mechanisms that accommodate adaptive governance, and changing roles and responsibilities of different types of actors and dynamic action plans of the network.
- Ensure eligibility of management and coordination activities of the different types of actors engaged in the Network and ring-fence funding for these kinds of activities in funding programmes.
- Require in research and funding policies the generation of sound evidence of the performance and impact of the Network through transparent monitoring and evaluation of its processes and activities.
- Ensure common application of EU standards and requirements for data management and protection that facilitate transboundary data harmonisation and mobilisation.
- Promote science-policy-society dialogue in support of the establishment and implementation of evidence-based policies for agroecology transition and to increase the awareness of the added value of a European Network amongst private and public funders
- Support close cooperation of the European Network with other networks in the agricultural and rural development arena in the EU, e.g. the EU CAP Network and Mission Soil.
- Encourage research into defining network types and their characteristics and develop tools and approaches to increase network coordination and performance.

## Acknowledgements

This report is compiled for the HEU ALL-Ready project (Grant Agreement No. 101000349). We would like to thank the pilot network members, and other initiatives and organisations for participating in the interviews and workshops and for their valuable input in the discussion of the key issues for the implementation of a European Network for Agroecology Living Labs and Research Infrastructures reported in this Deliverable.



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