



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

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Guidance for the implementation plan for a European Network of Agroecology Living Labs and Research Infrastructures

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Deliverable Number	D4.3
Work Package	WP4
Deliverable type	Report
Dissemination level	Public
Deliverable leader	Thünen Institute
Due date	31 st of August 2023
Submission date	12 th 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	30.09.2023	Gerald Schwarz, Isidora Stojacic, Antonia Riedel, Sylvie Fosselle, Jo Bijttebier, Bastian Gödel, Dolinda Cavallo, Isabelle Couture, Chris McPhee, Korinna Varga, Valeria Csonka, Jose M. Avila, Iira Soto, Daniel Caro, Martin H. Thorsøe, Torsten Berg, Ivana Trkulja, Lisa Haller, Bram Moeskoop, Daniel Monteleone, Heather McKhann, Muriel Mambrini-Doudet, Ophelie Bonnet, May Hobeika, Ana Krywoszynska	
V2	31.10.2023	Gerald Schwarz, Isidora Stojacic, Antonia Riedel, Sylvie Fosselle, Jo Bijttebier, Bastian Gödel, Dolinda Cavallo, Isabelle Couture, Chris McPhee, Korinna Varga, Valeria Csonka, Jose M. Avila, Iira Soto, Daniel Caro, Martin H. Thorsøe, Torsten Berg, Ivana Trkulja, Lisa Haller, Bram Moeskoop, Daniel Monteleone, Heather McKhann, Muriel Mambrini-Doudet, Ophelie Bonnet, May Hobeika, Ana Krywoszynska	
V3	12.01.2024	Gerald Schwarz, Isidora Stojacic, Antonia Riedel, Sylvie Fosselle, Jo Bijttebier, Bastian Gödel, Dolinda Cavallo, Isabelle Couture, Chris McPhee, Korinna Varga, Valeria Csonka, Jose M. Avila, Iira Soto, Daniel Caro, Martin H. Thorsøe, Torsten Berg, Ivana Trkulja, Lisa Haller, Bram Moeskoop, Daniel Monteleone, Heather McKhann, Muriel Mambrini-Doudet, Ophelie Bonnet, May Hobeika, Ana Krywoszynska	

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List of abbreviations

AAFC	Agriculture and Agri-Food Canada
CSA	Coordination and Support Action
EC	European Commission
EIP Agri	European Innovation Partnership for Agricultural Productivity and Sustainability
ENRD	European Network for Rural Development
LAG	Local Action Group
LL	Living Lab
M&E	Monitoring and evaluation
NCP	National Contact Point
NRN	National Rural Networks
OIA	Open innovation arrangement
PN	Pilot network
RI	Research Infrastructure
WP	Work package

Executive summary

This document is Deliverable D4.3 in the Work package (WP) 4 “Implementation and Sustainability of the Network”. WP 4 aims to provide guidance on implementation that ensures the added value and sustainability of the European Network of AE LLs and RIs capturing and promoting long-term processes of transitions to agroecology. In particular, this report relates to Task 4.4 “Identification of key factors for the sustainable long term implementation of the Network” and synthesizes the results of ALL-Ready into guidance for the development of an implementation of the European Network of AE LLs and RIs under the Horizon Europe Partnership on Agroecology.

The overall objective of this report was to provide strategic guidance for the sustainable long-term implementation of the European Network harnessing its potential to contribute to the acceleration of a transition to agroecology in Europe. The report introduces and outlines the tailored application of the business model concept for the development of an implementation plan for the European Network using the Flourishing Business Canvas and its perspectives and key questions. A synthesis of key issues and lessons from the activities and analysis done in the ALL-Ready project is provided and structured along the dimensions of an implementation plan, informing the development of such a plan by the members of the European Network of Agroecology LLs and RIs in the first phase of the Partnership AGROECOLOGY.

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 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. Such key factors need to be considered in the different dimensions of the implementation plan including the overall ambition, vision and mission of the Network, the funding strategy, monitoring and evaluation of the performance of the Network, stakeholder engagement, communication and dissemination, capacity building, the added value of the Network, governance of the Network, upscaling strategies, thematic priorities, IPR and data management and risk factors.

An aim of the guidance is to help the network coordination team and members in co-designing the implementation plan, providing lessons learnt from the preparator work in ALL-Ready and selected examples that worked in practice. This guidance synthesises and compliments key output of the ALL-Ready project such as development of the vision and mission of the European Network (Mambrini-Doudet *et al.*, 2022), the mapping of agroecology initiatives and experiences across Europe (Thorsøe *et al.*, 2023), the experiences from the pilot network and evaluations of stakeholder engagements done in ALL-Ready (Riedel *et al.*, 2023), the booklet on the pilot network (Jonasz *et al.*, 2023), lessons from designing a capacity building programme (Cavallo *et al.*, 2024), review of data principles and strategy (Avila Castuera *et al.*, 2023), the assessment of the added value and key success factors of a European Network (Schwarz *et al.*, 2022, Stojacic *et al.*, 2024), and the various factsheets published by the project (e.g. on criteria for becoming a member of a European Network of Living Labs and Research Infrastructures for agroecology transition and insights and applications of virtual environments, see the [project website](#) and on [Zenodo](#) for further information).

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 living labs and research infrastructures 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). The improved understanding of the potential added value of the European Network in addressing key challenges of the community of agroecology living labs and research infrastructures and promoting transitions towards agroecology enabled the identification of key factors that impact on the sustainable long-term implementation of a European Network. These key factors relate (for example) to adaptive network governance, transparent and sound monitoring and evaluation of the performance of the network. and development of guidelines and protocols to support data harmonization and mobilization (McPhee and Schwarz, 2023), and guide the implementation of the European Network.

This document is Deliverable D4.3 in the Work package (WP) 4 “Implementation and Sustainability of the Network”. While the implementation plan itself has to be developed by the members of the European Network, WP 4 aims to develop guidance for the implementation 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 4.4 “Implementation plan to run the network and policy recommendations” and synthesizes key results of ALL-Ready into the guidance for the implementation plan.

The strategic guidance on developing an implementation plan for the European Network of Agroecology Living Labs and Research Infrastructures outlines the use of the business model concept (Elkington and Upward, 2016, Hoveskog *et al.*, 2017, Karlsson *et al.*, 2019) as a basis for the development of the implementation plan. It highlights key issues and lessons learnt from the activities and analysis done in the ALL-Ready project for the dimension of the implementation plan. The guidance integrates the insights from the development of the vision and mission of the European Network (Mambrini-Doudet *et al.*, 2022), the mapping of agroecology initiatives and experiences across Europe (Thorsøe *et al.*, 2023), experiences from the pilot network and evaluations of stakeholder engagements done in ALL-Ready (Riedel *et al.*, 2023), lessons from designing a capacity building programme (Cavallo *et al.*, 2024), data principles and strategy (Avila Castuera *et al.*, 2023) and the assessment of the added value and key success factors of a European Network (Schwarz *et al.*, 2022, Stojacic *et al.*, 2024).

The overall objective of this Deliverable (D4.3) is to provide strategic guidance for the sustainable long-term implementation of the European Network harnessing its potential to contribute to the acceleration of a transition to agroecology in Europe.

The specific objectives of Deliverable 4.3 are:

- To introduce and outline the tailored application of the business model concept for the development of an implementation plan for the European Network using the Flourishing Business Canvas and its key dimensions.
- To synthesise key issues and lessons learnt from the activities and analysis done in the ALL-Ready project for the dimensions of an implementation plan, informing the development of such a plan by the members of the European Network of Agroecology LLs and RIs in the first phase of the Partnership AGROECOLOGY.

The short report is structured as follows:

- Section 2 describes the methodological synthesis approach of integrating the results of the ALL-Ready project into the strategic guidance for the implementation plan and introduces the application of the business model concept using the flourishing business canvas to co-design network implementation.
- Section 3 summarises key issues and lessons learnt from the activities and analysis done in ALL-Ready for each dimension of the implementation plan following the business model concept.
- Section 4 provides conclusions and an outlook on the use of the guidance for implementation of the European Network in the Partnership AGROECOLOGY.

2. Conceptual and methodological framework of the guidance for the implementation plan

2.1 Purpose of the guidance and data collection

The purpose of the strategic guidance is to support the setting up of the European Network of Agroecology LLs and RIs in the Partnership AGROECOLOGY. The document provides strategic guidance to the future network coordination team and members on a process for developing an implementation plan and the key issues to be considered in co-designing its different dimensions.

It explains the conceptual framework of using the Flourishing Business Canvas for developing a logic model of the different dimensions of the implementation plan of the European Network. The Flourishing Business Canvas is an extension of the standard business model canvas tailored to sustainable business. It is a visual collaborative tool that considers the interdependencies of business models with economy, society and environment, and contributes to shared learning about co-creating values and outcomes in business models and facilitates reflections upon co-design processes with all network members and relevant stakeholders.

An aim of the guidance is to help the network coordination team and members in co-designing the implementation plan, providing lessons learnt from the preparatory work in ALL-Ready and selected examples that worked in practice. This guidance synthesises and compliments key output of the ALL-Ready project such as the experiences from the pilot network and evaluations of stakeholder engagements done in ALL-Ready (Riedel et al., 2023), the booklet on the pilot network (Jonazs et al., 2023), lessons from designing a capacity building programme (Cavallo et al., 2024), the assessment of the added value and key success factors of a European Network (Schwarz et al., 2022, Stojacic et al., 2024), and the various factsheets published by the project (e.g. on criteria for becoming a member of a European Network of Living Labs and Research Infrastructures for agroecology transition and insights and applications of virtual environments, see the [project website](#) and on [Zenodo](#) for further information). Table 1 provides an overview of the ALL-Ready Deliverables that informed the guidance for the implementation plan.

Table 1 Overview of the main ALL-Ready outputs informing the guidance for the implementation plan of the European Network of Agroecology LLs and RIs

ALL-Ready output and data sources for the guidance
D1.1 Reference document with key concepts: Vision for building the network of living labs and research infrastructures for agroecology transition
D1.2 Definitions and a set of inclusion criteria for agroecology living labs, pertinent research infrastructures and their synergies
D1.3 Vision and mission document
D2.3 Drivers of agroecology transition
D2.6 Towards a Network of European Agroecology Living Labs”: Advancing the agroecology transition using living labs
D3.1 Stakeholder engagement
D3.2 Reports of ALL-Ready pilot co-creation experiences
D3.3 Booklet on overall stakeholder recommendations for the implementation of the future European Agroecology LL and RI Network
D4.1 Report on the added value of the European Network
D4.2 Report on the preconditions for the sustainability of the Network and recommendations for its long term success
D5.1 Report on mapped needs and the key endusers of the capacity building programme
D5.3 →Report on the capacity building validation activity and workshops
D6.1 Standards & protocols for FAIR data management identification
D6.5 Data principles and strategy for AgroEcoLLNet

To ensure a consistent data collection across the different Deliverables structured templates with guiding questions were used to collect the input for each of the elements of the implementation plan (sections of the guidance 3.1 – 3.13). The guiding questions for data collection were:

- What is the main purpose of this element of the implementation plan?
- Which key issues need to be considered for this element of the implementation plan?
- What are experiences that have worked in practice?

The filled templates provided an overview and improved understanding of the project results that are of relevance for the different elements of the implementation plan and an inventory of key insights and findings answering the guiding questions. Throughout the guidance specific points, key issues and experiences are highlighted in boxes. Figure 2 provides a schematic overview of the input flows from the Deliverables to the sections of the guidance.



Figure 1 Overview of the input of the main ALL-Ready outputs into sections of the guidance

2.2 The Flourishing Business Canvas to co-design network implementation

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 emphasizes 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).

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 global level, the Global Research Alliance. The experiences on the implementation and management of such other networks of networks provide insights into the preconditions for the sustainability 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 organizations, such a network may display 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 Flourishing Business Canvas provides a visual collaborative tool supporting the co-creation of values and outcomes with all network members and relevant stakeholders (Upward and Davies, 2018).

The Flourishing Business Canvas builds upon the widely adopted business model canvas (Elkington and Upward 2016), aiming to integrate sustainability principles into business design. The term “flourishing” derives from work in industrial ecology (Ehrenfeld 2000) emphasizing the only goal of fostering long-term prosperity for both humanity and the environment. This underscores the importance of embedding sustainability goals in the design of business models. Creating business models with sustainability goals requires collaborative designs that address the mutually reinforcing interdependencies among stakeholders and their interdependent economic, social, and environmental interests and contexts (Hoveskog *et al.*, 2017).

The collaborative view of sustainable business models extends beyond the single-firm models, embracing a network level perspective on sustainable businesses (Abdelkafi and Täuscher 2016). The network-level business model is dynamic, focuses on value co-creation and requires continuous development as the environment of the network and the network itself (for example objectives, size and composition) change (Bankvall *et al.* 2017). Central to this approach is the concept of close cooperation among network members (Palo and Tähtinen 2013), where interactions, which are the basis of this cooperation, play a pivotal role in shaping the network-level business model (Araujo *et al.* 2003) and guiding the development of an implementation plan.



Figure 2 The flourishing business Canvas v2 (Antony Upward/Edward James Consulting Ltd). All rights reserved. <http://www.FlourishingBusiness.org>.

The Flourishing Business Canvas consists of three contextual systems: the environment, society, and the economy; four perspectives: process, people, value, and outcomes; and building blocks with topics and questions to think critically about a business model (Figure 2). The responses to these questions are used to describe and design the business model elements. The Flourishing Business Canvas is a holistic tool that can provide a visual expression of a shared understanding of the framework within which the network and its stakeholders co-create sustainable business models (Upward and Davies 2018). Its use contributes to individual and shared learning about integrated business and network sustainability by considering the co-creation of value and the importance of all stakeholders' interests (Äyväri and Jyrämä 2017). Moreover, the Flourishing Business Canvas can motivate network members to engage in broader and deeper conversations about the elements of an implementation plan. This fosters trust, creativity and innovation. In addition, Karlsson *et al.* (2019) conclude that collaborative business modelling for developing network-level BMs that address environmental and social problems for and with stakeholders can be an effective way to secure and increase long-term funding and promote the growth of a network.

In the case of ALL-Ready, the Flourishing Business Canvas was used to develop a logic model of the different dimensions of the implementation plan of the European Network. Key dimensions of the implementation plan were identified based on key themes for factors of success for the network implementation including, for example, the strategy, ambition and objectives of the network, funding strategy, monitoring and evaluation of the network, network governance, stakeholder engagement, IPR and data management (Stojacic *et al.*, 2024). The perspectives (processes, values, people and outcomes) and key questions of the Flourishing Business Canvas have been applied to the dimensions of the implementation plan, to review their composition and to facilitate a common understanding of their role and relationships in the network implementation (Figure 3). Because of the extensiveness and complexity of the tool, the boxes and language were simplified and adapted to the aims and requirements of facilitating and guiding the implementation of the European Network of Agroecology LLs and RIs.

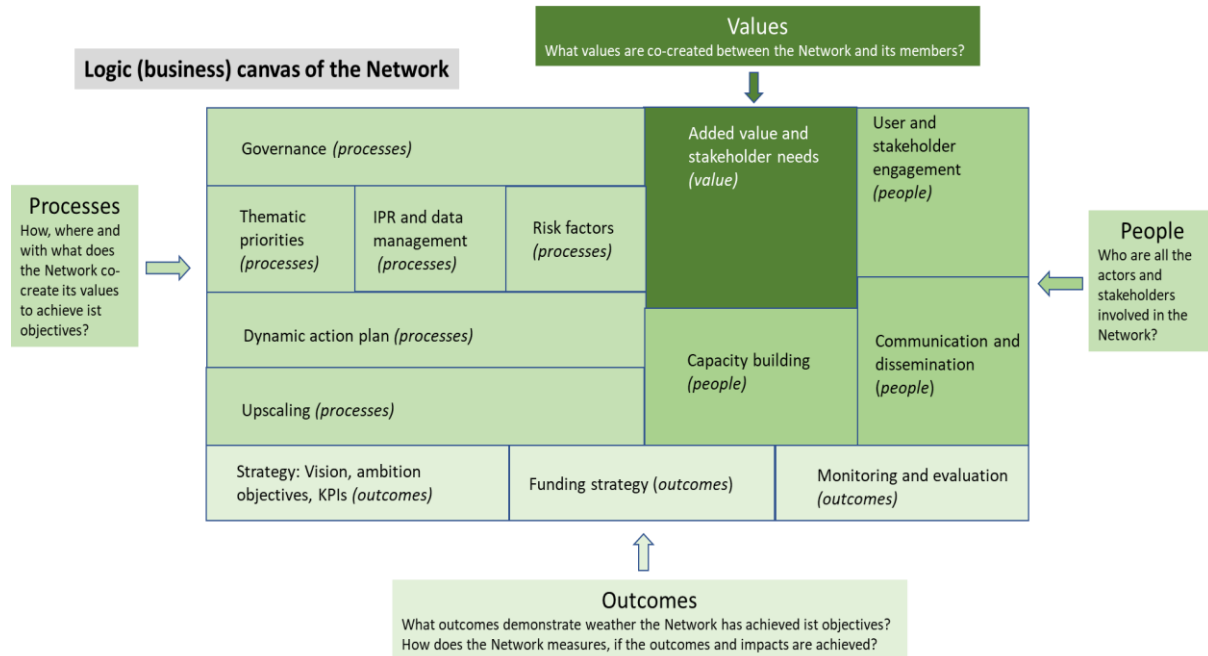


Figure 3 Logic model of the network implementation: Application of the perspectives and questions of the Flourishing Business Canvas to the dimensions of the implementation for a European Network

Further advantages of using the Flourishing Business Canvas in the development of the implementation plan of the European Network in the Partnership AGROECOLOGY were explained and discussed with the pilot network, complementing the training on business models provided to the pilot network as part of the capacity building programme (see Cavallo *et al.*, 2024). Key advantages include: i) using the questions of the Flourishing Business Canvas systematically helps the network members to learn about the different aspects of sustainable network implementation and the connections of the network to its economic, social, and environmental contexts; ii) recording of the responses to the building block questions offers a consistent way of documenting the sustainable business model and implementation of the network; and iii) fostering a collective understanding of the future business model of the European Network based on the consistent structure of the canvas creates trust among network members, which is expected to facilitate collaboration on network activities.

3. Guidance for the implementation plan

3.1 Strategy: Ambition, vision and objectives

A key purpose of the strategy is to ensure common ground and understanding amongst the diversity of organisations and objectives involved in the network. This includes the definition of key concepts that are of relevance for defining the ambition, vision and objectives of the Network.

The unique features of Agroecology LLs need to be considered in the development of an overall strategy of the European Network. These unique features include the very strong local embeddedness, the large diversity of their origins, from networks or communities willing to develop new practices to arrangements developed under policies, as well as the diversity of the actors and stakeholders involved, and the heterogeneity and intensity of knowledge produced.

The co-creation process with the pilot network and other stakeholders involved in agroecology transitions led to the definition of a vision and mission for a European Network of Agroecology LLs and RIs. The vision is that the European Network will accelerate the transition to agroecology throughout Europe by connecting and empowering place-based innovation from 2023 onwards. The mission of the Network emphasises the role of connecting RI, LL and other open innovation initiatives across Europe that support practices for agricultural production that pilot, create and use diversity. Organisations joining the European Network identify themselves with a set of criteria, including:

- co-creation of knowledge and innovation;
- promotion of resilience, sustainability and diversity;
- support for climate change adaptation and mitigation;
- synergies between ecosystem functions;
- promotion of efficiency and responsibility in the use of natural resources;
- development of circular and solidarity economies, value given to social and ecological justice.

Further key issues to be considered in the development of an overall network strategy are:

- to facilitate and enable the possibility to upscale and out-scale local advances through productive synergies beyond cultural frontiers and to monitor progress across Europe,
- to ensure that its activities are appropriately supported by regional and national funders,
- to empower the diversity of actors involved as knowledge-makers, produces a continuous science–policy dialogue,

- to deliver evidence needed for a stronger alignment of the funding landscape with the needs for agroecological innovation,
- and to enable the production of new and relevant transdisciplinary research questions to strengthen the field of agroecology.

These key issues are linked to the ambition of the Network to support inclusive place-based innovation that accelerates the transition to agroecology at the local, regional and national levels in every European country.

The vision and mission co-created in ALL-Ready provide the starting point for further developing an overall strategy for the European Network during its initiation phase at the beginning of the Partnership Agroecology. Objectives and key performance indicators need to be developed in a participatory process with the members of the European Network. Regular reviews and updates of the objectives and key performance indicators are required and to maintain the focus of the network on key objectives and activities.

3.2 Funding strategy

The main purpose of defining a funding strategy for the European Network is to ensure the long term financial sustainability of the Network, ensure sufficient financial resources for the coordination and management of the Network and its various activities, and for delivering its added value to its members and the wider community of agroecology LLs and RIs.

The implementation plan of the European Network needs to aim for a long-term funding strategy that ensures its long-term sustainability in alignment with its ambitions and objectives. The strategy has to consider the financial requirements and needs of the Network, including the generation of revenue streams as well as cost structures for the management and activities of the Network. In addition, it should address funding gaps of LLs and RIs participating in the Network and thus strengthen their capacity to contribute to accelerating the transition to agroecology.

Adequate resource allocation for network management is a critical issue for the successful implementation of the Network. The funding strategy needs to outline actions that ensure the availability of funds for network management. One recommendation from the pilot network is to include funding for managing and driving the network activities in each proposal involving the Network. 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 implementation plan needs to account for the risk of changing higher-level political objectives that might affect the availability of public funding and increase the uncertainty about budget availability. Political support and long-term commitment of public authorities are therefore crucial.

The experiences from the pilot network indicated potential sources of funding for networking activities. 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 some members (example of organic players raised) leaving the Network. It is recommended that the funding strategy of the European Network considers the setting up of a committee that evaluates arising opportunities for private funding, identifying potential ethical concerns.

To mitigate funding uncertainty, outreach activities to national ministries and diversification of revenue streams beyond public funding should be pursued. Exploring a membership fee, is an option, but feasibility and acceptance among members need to be taken into account. Highlighting the added value of participating in the Network can increase acceptance of such

fee and convince LLs and RIs to invest in a membership fee for such a European Network. Alternatively, experiences from the pilot network suggest that generating revenue streams through fees for specific services the European Network provides, e.g. participation fees for specific in-person events, webinars and training, would be more acceptable to the prospective members of the Network. Such an approach might also help to better understand what brings the most value to the European Network.

Further key issues for the funding strategy relate to addressing funding gaps of agroecology LLs and RIs. Recommended measures to include in the funding strategy are to provide practical solutions for addressing funding gaps, e.g. through guidance on, and coordination of collaboration in, fundraising, and addressing operational challenges through coordination of common data management or facilitating cooperation in equipment usage.

3.3 Monitoring and evaluation

Monitoring and evaluation (M&E) will be a vital component of the European network to promote agroecology and sustainability in agriculture. Generating evidence on the benefits of developing and participating in the European Network fosters buy-in and commitment from funding organisations and living labs and research infrastructures. This requires the development of tools or approaches to monitor and evaluate the performance of the network transparently and soundly. To assess the network's impact, performance metrics and indicators are defined, and data is regularly collected from various sources, including surveys, interviews, and field assessments. A baseline assessment provides a reference point for measuring progress, while stakeholder feedback is sought to adapt network activities as needed. Impact assessments demonstrate the adoption of agroecological practices, improvements in soil health, and enhanced biodiversity, among other outcomes. Additionally, KPIs are of crucial importance to understand different parameters, eg. how many LL and RI are in the network, from the pilot network phase to the maturity phase and along the way, etc. The M&E process informs continuous improvement, helping the network refine its strategies and ensure its long-term sustainability. In essence, M&E is the linchpin for the success of the European Network in fostering sustainable agriculture and ecological harmony.

The M&E process also contributes to continuous improvement. By systematically reviewing and learning from the findings, the network can adjust its activities, fine-tune training programs, and optimize research initiatives based on lessons learned. This dynamic approach to improvement is instrumental in staying responsive and adaptive to the evolving challenges and opportunities within the agricultural sector.

Lastly, the M&E system serves as a means to assess the network's long-term sustainability and its capacity to maintain its mission and activities well into the future. By evaluating its strengths and potential vulnerabilities, the network can develop strategies to secure the necessary funding, support, and partnerships needed to ensure its longevity and enduring impact on the landscape of sustainable agriculture.

3.4 Stakeholder engagement

Stakeholder engagement is foundational to the network's success, serving as a crucial avenue for collecting valuable knowledge and building upon stakeholders' experiences, expertise, and motivation. Involving stakeholders throughout the network is paramount, actively incorporating their needs to enrich the network's foundation with diverse information and perspectives. Recognizing varied values and perspectives is hereby key, especially in a European-wide network, where stakeholder engagement plays a pivotal role in identifying and comprehending diverse needs. This can be achieved by tailoring the approach to regional and local requirements which ensures responsiveness to the unique demands of all European regions, creating a network that effectively serves a wide array of stakeholders. Stakeholder

engagement extends beyond information gathering; it intertwines with co-creation processes, fostering a sense of ownership which is crucial for long-term success. Involving stakeholders in decision-making and development processes not only empowers them but also fosters genuine investment, making sustainability and durability essential criteria for measuring the network's success. A network built with active stakeholder involvement is more likely to endure changing circumstances.

The network aims to reach and co-create value with a diverse range of individuals, groups, and organizations, with a particular focus on RIs and LLs. Several factors come into play when choosing stakeholders:

- **Geographical Scale:** Considering the broad scope of the network, it's essential to identify stakeholders at various geographical scales. This ensures a comprehensive understanding of diverse regional needs and variations.
- **Type of Stakeholder Group/Activity Scope:** Tailoring engagement strategies based on the specific nature of stakeholder groups or the scope of their activities allows for more targeted and effective collaboration.
- **Maturity Level of LL/RIs:** Recognizing the maturity level of Living Labs and Research Infrastructures is crucial. Different levels may require different approaches, acknowledging the varying capacities and needs of stakeholders.
- **Potential Interest of the Stakeholder in the Future Network:** Assessing stakeholders' potential interest in the future network helps prioritize and focus efforts on those most likely to contribute meaningfully.
- **Importance of the Stakeholder for the Future Network:** Identifying the significance of each stakeholder for the future network ensures that key players are actively involved, contributing to the overall success and sustainability of the initiative.

Additionally, addressing hard-to-reach stakeholders is crucial. These are individuals or groups facing practical constraints such as limited access to information, absence from established networks, lack of trust in EU-related processes, time constraints, or perception of minimal value in participating in a European network. Strategies for engagement need to be tailored to overcome these barriers and ensure their inclusion in the project. General suggestions for stakeholder identification include employing diverse approaches to identify stakeholders and customizing the geographical focus based on regional variations. This targeted approach is deemed more advantageous than diversification solely based on variations among key end-user groups. Recognizing the uniqueness of each stakeholder and adapting engagement strategies accordingly enhances the network's ability to meet user and stakeholder needs effectively.

3.5 Communication and dissemination

The main purpose of communication and dissemination within the network is multi-faceted. Effective communication serves as a pivotal tool in achieving the network's objectives by facilitating knowledge exchange, building support, and advocating for network goals. Furthermore, it plays a crucial role in disseminating research findings and project outcomes, providing a channel for feedback and issue management, thereby ensuring the network's success and impact. Notably, LLs seeking funding for dissemination activities underscore the vital role of communication in achieving their primary purpose.

The network's activities and innovation processes are communicated both internally and externally through a variety of channels. Internally, regular meetings, collaboration tools, and shared documentation keep network members informed and engaged. Externally, communication takes diverse forms, including public announcements, press releases, social media, and official websites. These channels are employed to inform stakeholders, partners,

and the broader community about the network's initiatives and achievements. This comprehensive approach to communication ensures that both internal and external stakeholders are well-informed and aligned with the network's objectives. Effective communication enhances the impact of the network's innovations on a broader scale by fostering collaboration and support.

Key issues in communication and dissemination for the network encompass a range of considerations. Recognising the varied interests and information needs of stakeholders, messages need tailoring to different audiences. Clarity and timeliness are important, ensuring that information is conveyed effectively and in a timely manner. Consistency in messaging across various platforms and communications can maintain a cohesive and reliable image. Privacy and security are critical concerns, emphasising the need to prioritise the protection of sensitive information, while also sharing knowledge with others. Encouraging two-way communication fosters an environment where stakeholders feel heard and valued. Additionally, effective communication strategies should include crisis management planning to address unforeseen challenges promptly. Consideration of accessibility, multicultural aspects, and legal compliance is crucial to ensure that communication is inclusive and adheres to relevant regulations. Gathering feedback and insights from network members is integral to refining communication approaches continually.

Examples of good practices in communication and dissemination involve tailoring messages to diverse audiences, using clear and engaging content, and employing multiple communication channels. Sharing success stories highlights the impact of the network's initiatives while providing regular updates keeps stakeholders informed and engaged. Hosting a variety of engagement events, including both online and in-person network meetings, enhances collaboration and fosters a sense of community among stakeholders. These practices collectively contribute to effective communication and dissemination, maximising the network's reach and impact.

3.6 Capacity building

Capacity building is strategically designed to empower members of the network with the necessary knowledge and skills, fostering an effective agroecological transition. The primary objective is to ensure the success of this transition by strengthening organisational capacity, enhancing collaboration, increasing impact, and securing the sustainability of LLs and RIs. Different competencies are needed to fulfil these objectives. A framework of competencies is an observable and measurable list of skills and behaviours that lead to outstanding performance within specific roles or contexts. This framework identifies the competencies and needs of key users at three levels:

- At the individual level, capacity building involves reshaping attitudes and behaviours by enhancing individual skills, knowledge, and performance through training, experiences, motivations, and incentives. This process aims to maximize the benefits of participation, knowledge exchange, and ownership.
- At the institutional level, the focus is on enhancing organisational performance through strategies, plans, rules and regulations, partnerships, leadership, organizational politics, and power structures. This includes improving organisational systems, processes, roles, and responsibilities.
- At the systemic level, capacity building is on enhancing the policy framework to address economic, political, environmental, and social factors. This involves considering economic growth, financing, labour markets, political context, policy and legislative environment, class structures, and cultural aspects in a coherent and mutually reinforcing manner.

This structured competency framework, spanning three distinct levels, is instrumental in analysing and identifying inadequately developed competencies at local, national, and European levels. Serving as an analytical tool, it provides insights into specific needs and variations across European regions, laying the groundwork for prototyping customised capacity-building programs tailored to key end users. The All-Ready testing phase showed, that the following competencies need to be further developed throughout Europe to foster agroecology transition. The following recommendations for the future network can close skill and knowledge gaps and overall support the development of the five competencies.

- **Systems Thinking:** The future network should support systems thinking to comprehend path dependencies, avoid unintended consequences, and assess both short and long-term consequences of complex challenges in the agri-food system. Researchers were identified as a key target group, and collaboration with the Partnership on sustainable food systems is recommended.
- **Agroecology as a Concept:** Disparities in awareness of agroecology across countries were noted. Efforts are suggested to inform policymakers and showcase inspiring examples at municipal and regional levels. Education, from primary schools to universities, was emphasised for integrating agroecology. There is a need for a widely accepted narrative and a shared understanding to address diverse definitions.
- **Agroecology in Practice:** Barriers to wider implementation, such as a lack of knowledge and economic constraints, were identified. The network could support introducing experimental fields, promoting knowledge exchange among farmers, and addressing economic challenges through innovative business models. The role of LLs in developing participatory guarantee schemes and community-supported agriculture is emphasised.
- **Co-Creation:** The introduction of co-creation during formal education, and research institutes were identified as key players in setting up initiatives. Challenges in aligning research proposals with early stakeholder involvement were acknowledged, suggesting a need for changes in research proposal development, promoted by the future network.
- **Agroecology as a Science:** Emphasis of the future network on the collaboration between farmers and researchers by the future network on a large scale and highlighting the asset of RIs in developing open databases on the economic impact of agroecology practices could support agroecology sciences.

Further, a crucial consideration is the incorporation of diverse needs at different competency levels. This insight underscores the importance of tailoring capacity-building initiatives to the specific requirements of individuals, institutions, and the broader systemic context. During the ALL-ready phase, it became evident that emphasising a shared understanding across the entire stakeholder ecosystem related to agroecology and agri-food is good practice. To achieve this, we recommend creating a comprehensive glossary encompassing definitions of various aspects of the transition to agroecology, the establishment of LLs and RIs, and the development of a network.

In addition, a recommended good practice is to diversify the Capacity Building Program based on the four European regions rather than different (thematic) groups of key end users. This strategic choice is due to the relatively small differences among these groups, compared to the disparities observed across different European regions. Project partners recommend integrating these identified good practices into the CBP of the future network to overcome the issue of identifying and considering the different needs across users.

3.7 Added value and stakeholder needs

The European network excels in delivering added value by creating a dynamic ecosystem for the exchange of knowledge and ideas. This exchange of experiences and expertise fosters a culture of continuous learning and adaptation, allowing stakeholders to gain valuable insights from one another's successes and challenges. Research Infrastructures, for example, can learn practical techniques and sustainable farming methods from the living labs in the network which have successfully implemented agroecological practices. Living labs, on the other hand, benefit from a wealth of field-based data and access to real-world implementation sites, enabling them to use research data and information that is directly relevant and impactful.

The network's emphasis on research and innovation further amplifies its added value. By serving as a platform for interdisciplinary research initiatives, the network contributes to the development of novel solutions and best practices in the realm of agroecology. Stakeholders within the network have the opportunity to collaborate on studies that address pressing agricultural and ecological challenges.

Another dimension of the network's value lies in its role as an educational and capacity-building platform. It equips the LLs and RIs with the necessary knowledge and skills to implement agroecological practices effectively. This directly addresses the needs of individuals seeking to adopt more sustainable farming methods or those pursuing careers in agriculture and environmental science.

Addressing the specific needs of various external stakeholders is central to the network's mission, as well. For farmers who are directly interconnected with LLs, the network provides knowledge, technical support, and practical solutions to improve crop yields while reducing environmental impact. Researchers belonging to RIs gain access to research infrastructure, funding opportunities, and a platform to disseminate their findings, fulfilling their need for resources and exposure. Students from RIs acquire valuable educational experiences and mentorship to enhance their understanding of agroecology and sustainability. Environmental organizations could benefit from data, research findings, and a platform for advocacy, etc.

Large scale diffusion of agroecological innovations requires actions across the value chain including processing and retail. A European Network would be able to reach the entire value chain, from input suppliers to consumers, promoting value chain solutions (e.g. improving quality standards and improving access to markets).

In summary, the European Network offers a multi-dimensional added value through knowledge exchange, research, education, and tangible impact on ecosystems. The European Network is expected to raise awareness of topics and impacts of transitions to sustainable farming and food systems for wider society, reaching the entire value chain and promoting value chain solutions. By meeting the diverse needs of its stakeholders, it plays a pivotal role in advancing the cause of agroecological practices and sustainability of the concept of agroecology.

3.8 Governance of the network

Network governance is a complex and multifaceted concept that plays a pivotal role in shaping the way organizations, both public or private, operate and make decisions within the context of their interconnected networks. At its core governance within a network is to create a meticulously structured framework that guides decision-making, management practices, and overall oversight. This ensures that the network operates efficiently and ethically, consistently reflecting its core mission and the best interests of its diverse membership and stakeholders.

A clear structure for defining roles and responsibilities helps minimise ambiguity and ensures that individuals or entities within the network understand their functions, thereby reducing potential conflicts and enhancing overall efficiency. Additionally, it offers a systematic approach to risk management, which is crucial in today's dynamic and interconnected world. Proper risk assessment and mitigation strategies are vital to safeguard the network's stability and protect it from potential disruptions. Accountability is another cornerstone of network governance. Members and stakeholders can trust in the network's ability to act responsibly and to share the best knowledge possible, in the topic of agroecology as well as provide tools to facilitate the objectives of the network.

Crucially, network governance is fundamentally about promoting the network's sustainability and success. By providing a structured decision-making framework and instilling responsible management practices, governance enhances the network's resilience and adaptability in a constantly changing environment. Furthermore, governance mechanisms promote transparency, ensuring that decisions are made openly and that resources are managed responsibly. This transparency not only cultivates a sense of trust among members and stakeholders but also helps in the effective allocation of resources, ultimately contributing to the network's long-term prosperity.

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. Such a network is likely to display a large diversity of objectives, funding sources and timelines, and implementation models. Effective governance of networks requires shared principles enabling constructive engagement and dealing with disagreements among the network actors. 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 (see also section 3.1).

The experiences from the ALL-Ready project 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. The implementation of the European Network needs to consider 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 (see also section 3.9). 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.

The example of ENOLL, the European Network of Living Labs, provides a concrete illustration of network governance in action, which was examined in detail during the project as a network which started from a project and expanded into a sustainable network with numerous members. ENOLL's governance structure is designed to ensure effective decision-making, responsible management, and the promotion of its core mission within the living lab community. Let's delve deeper into the elements of ENOLL's governance framework and give practical insights into a successful story:

1. Council: ENOLL's Council, consisting of 19 members who were partners in the original FP6 project, plays a central role in decision-making and governance. The Council is responsible for electing key figures within the network.
2. Secretariat: A Secretariat is established to manage administrative functions. It includes a Chairperson, Treasurer, and Secretary. The Secretary is elected by the

Council and the network's Director, emphasizing the importance of internal governance mechanisms in leadership and management.

3. Vice Chair: The addition of a Vice Chair, who brings significant knowledge and expertise, showcases the network's commitment to effectively utilizing the skills and insights of its members for the benefit of the entire community.
4. Administrative Offices: ENoLL has structured its administrative functions into various units, including network administration, policies, finance, capacity building, dissemination, and communication offices. This division of responsibilities ensures that different aspects of governance are efficiently managed.
5. Working Groups: The segmentation of members into Working Groups based on sectors highlights ENoLL's dedication to specialization and expertise. This approach enables focused efforts in specific areas and aligns with the principles of governance related to defining roles and responsibilities.
6. General Assembly: The General Assembly, comprising all members, allows for the active participation of the entire network. Effective members possess voting rights, while adherent members can engage in discussions. This inclusivity is a testament to the network's commitment to transparency and ensuring that all voices are heard.

In summary, ENoLL's governance framework serves as a practical example of how network governance principles are applied in a real-world context. It showcases the importance of clear structures for roles and responsibilities, the involvement of key stakeholders in decision-making, adherence to regulations and standards, and the overall promotion of transparency and responsible management of resources. ENoLL's governance model demonstrates how networks can adapt and evolve to meet their objectives while nurturing a vibrant and collaborative community.

On the other hand, the governance structure of the Canada Agroecosystem Living Labs Network serves as a valuable example of managing a heterogeneous network. Allowing for consolidation processes and activities is vital for the network's long-term implementation. The network is supported by Agriculture and Agri-Food Canada (AAFC), which administers programs and funding through its Programs Branch. AAFC's dedicated Living Labs Division, part of the Science and Technology Branch, manages innovation, science delivery, and network infrastructure. Roles within the division include:

- Associate Director
- Coordinators
- Teams focusing on science, data management, climate change, innovation, and socio-economics.

This organized approach ensures effective coordination and expert management in network governance, promoting collaboration and knowledge exchange within the network.

Therefore, the theoretical framework of network governance is a multifaceted and essential concept that serves as the backbone for effective, ethical, and sustainable network operation. By defining roles, managing risks, ensuring accountability, and adhering to regulations, network governance provides the necessary tools for networks to thrive and fulfil their missions while promoting transparency and responsible resource management.

3.9 Upscaling strategies

The main purpose of a strategy for upscaling the European Network is to ensure that the European Network can sustainably grow and expand its activities and reach, taking into account changing needs and growing interest amongst the community of agroecology LLs and RIs in Europe.

A potential upscaling of the European Network needs to be done step-by-step and carefully considered in the governance of the network. Experiences from other networks of networks such as the AAFC's nationwide network of living labs in Canada highlight the importance of allowing for consolidation processes and activities in the evolution of the 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. While it is important to apply an "open-door-principle" during the upscaling and to embrace the benefits of diversity in the composition of network members, core principles of agroecology LLs and RIs need to be consistently maintained during the upscaling, in line with the vision and mission of the Network.

The upscaling of the European Network needs to be done in close collaboration with other European Partnerships and Missions to ensure complementarities and synergies between growing networks at the European level. Further key issues for developing a strategy to upscale the European Network are the consideration of linkages with national and regional networks, and supporting their development in countries where these do not exist yet, as well as supporting development of LLs and RIs at local level by national ministries to foster diversity in the network.

Experiences from the engagement and co-creation processes in the pilot network also generated recommendations for specific activities that could be scaled-up to support the transition more effectively to agroecology by LL/RIs on the European scale. Recommendations for activities that could be scaled up include:

- Establishing a shared network repository storing information on activities of all LL/RIs and a regular newsletter for information and event sharing.
- Implementing a formal onboarding system, mentoring of new members and a mandatory training process for newcomers.
- Increasing the number of farmers, agronomists, and advisors in the network through the member LL/RIs or externally.
- Continuing and expanding the workshop formats and learning roundtables with all the co-creation methods used in the pilot network for the European network
- Creating a LL/RI classification (accessible to everyone) that allows a better overview and exchange on specific topics, including subgroups by thematic working groups that can support scaling up by sharing know-how and best practices.
- Organizing field visits to further foster knowledge dissemination and awareness raising of the Network
- Providing training on LL & RI setup, stakeholder engagement and management.
- Facilitating peer-to-peer consulting through regular online or offline sessions in the Network where members can exchange ideas and experiences on specific issues of interest or problems.

3.10 Thematic priorities

The European Network is a pioneering initiative with a primary focus on agroecology, which is an interdisciplinary approach to agriculture that emphasizes the integration of ecological principles into farming practices. This approach aims to create more sustainable and resilient agricultural systems by working in harmony with natural ecosystems. Within the realm of agroecology, the engagement with the pilot network and the wider community of agroecology LLs and RIs identified a range of topics for consideration in the European Network. These include:

- **Sustainable Farming Practices:** The network is dedicated to promoting and researching sustainable farming practices that align with agroecological principles. These practices prioritize soil health, minimize the use of synthetic inputs, and

optimize resource efficiency, which is vital in agroecology to create agricultural systems that are in harmony with nature.

- **Biodiversity Conservation:** Biodiversity conservation is a central pillar of agroecology. The network is committed to supporting strategies that protect and enhance biodiversity within agricultural landscapes, which is crucial for maintaining ecological balance and supporting healthy farming ecosystems.
- **Agroforestry and Agroecosystems:** Agroecology emphasizes the integration of trees and perennial crops into agroecosystems as a means to enhance biodiversity, sequester carbon, and ensure long-term sustainability. This approach aligns closely with the agroecological principle of mimicking natural ecosystems to create more resilient and productive agricultural systems.
- **Education and Training:** Education and training programs are essential to the dissemination of agroecological knowledge and practices. The network aims to provide training and capacity-building programs to empower farmers, researchers, and students to implement agroecological principles effectively, thus contributing to the broader adoption of sustainable and ecologically sound farming methods.
- **Governance of agroecology transition and systems-level approaches:** The territorial scale of governance is important to allow 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. Territorial governance and systems-level approaches are complex and new approaches for many stakeholders in LLs. The European Network could build on experiences from the Biodistricts (e.g. in Italy) and other initiatives of territorial governance across Europe.

The European Network, as a collection of living labs and research infrastructures, serves as a dynamic ecosystem for the advancement of agroecology. By providing a practical, hands-on environment for testing and implementing agroecological principles, the network enhances the impact of agroecology in real-world agricultural landscapes, ultimately contributing to a more resilient and environmentally friendly food system. By focusing on sustainable farming practices, biodiversity conservation, agroforestry, and education, the network aims to drive the adoption of agroecological practices and create a more sustainable and resilient future for agricultural systems.

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 need to be addressed in close collaboration with the other Partnerships and Missions.

3.11 IPR and data management

Proper data principles ensure consistent and accurate data collection, a cornerstone for robust research. The implementation plan needs to provide a framework for IPR and data management, as diverse stakeholders, from farmers to policymakers, rely on this research. It ensures data is managed systematically, fostering trust and facilitating collaborative efforts. Without such guidelines, data can become fragmented, leading to potential inaccuracies, and hindering cooperation amongst LLs and RIs. A robust data strategy ensures data is used purposefully, maximising its impact by directing research towards meaningful, actionable insights that can drive sustainable agricultural practices forward.

Such a data strategy needs to build on established data principles, which consider openness and transparency, FAIR data principles, ethical data collection and use, interoperability and standardization, data quality and integrity, inclusivity and diversity, and sustainability guaranteeing the availability and accessibility of data for future research. Among the principles, in particular openness and transparency, FAIR data principles, and ethical data

collection and use need to be emphasised. These principles facilitate scientific rigour, but they also ensure that science serves the public good.

A roadmap including timelines, responsibilities, and resource allocation will ensure the successful adoption of the proposed data principles and strategy. It is recommended to collaborate with the network members in the development of the roadmap to ensure buy-in and support for the strategy's successful execution. The implementation of the data principle and strategy needs to pay attention to data collection and management, data governance, sharing and access, data analysis and interpretation, data visualization and communication, capacity building and training, monitoring and evaluation of the data strategy and continuous improvement. Recommendations from the pilot network further highlight the importance of paying particular attention to setting up plans for mobilising datasets (not just archiving into a common repository), developing guidelines and protocols to support agroecology data harmonization, providing legal advice and expertise considering differences in laws between countries, and regarding ownership of new knowledge.

In addition to setting up a data strategy, the implementation plan of the European Network needs to outline a data governance model to ensure data quality, security, and lifecycle management. It is a prerequisite for the responsible management of data assets, thereby complementing IPR strategies. The data strategy developed in ALL-Ready (Deliverable D6.5) provides detailed descriptions of different data governance models. Centralised governance models have the advantages of greater consistency in data management, easier compliance with regulations and standards, and a lower risk of duplication of efforts. But less flexibility to adapt data management to specific needs and the risk of creating bottlenecks if the centralised data management team is overloaded need to be considered. Decentralised governance models have the advantages of greater flexibility to adapt to different project needs, facilitating innovation and adaptability. Disadvantages are the risk of inconsistency in data management and greater complexity to ensure compliance with regulations.

Elements of these two models of data governance can be combined to a hybrid model to create a more balanced approach. In such a hybrid model, a central team sets general policies and guidelines, while decentralised teams adapt these guidelines to the specific needs of their projects. This approach offers a balance between the efficiency of the centralised model and the flexibility of the decentralised model. In addition, a federated model of data governance can be of relevance for a network of networks, where multiple institutions across different countries collaborate. In this model, each collaborating entity maintains a degree of autonomy in managing its data but also adheres to a set of common policies and guidelines. This ensures both consistency and flexibility in data management.

A particular challenge of the data management of the European Network is the diversity of network members consisting of different types of LLs, RIs and other OIAs. While already transnational data management across different RIs is complex (e.g. dealing with differences in national laws and regulations), challenges are amplified when LLs and RIs require a common approach for data management (e.g. in relation to maintaining scientific standards of on-station experiments in real life settings of LLs). These issues will be further examined in the Partnership AGROECOLOGY, with close involvement of the European Network.

3.12 Risk factors

The implementation plan needs to account for existing and potential risks that might impact the successful long term implementation of the European Network. One mechanism to include and manage risks is a risk register, similar to risk registers used in larger projects (e.g. Horizon Europe). The risk register needs to be adapted to the characteristics of such a network of network and enable the identification and analysis of risks, and planning of responses. Steps to be done in the risk management with the register are to identify risks,

eliminate risks if possible and to design preventative measures, to perform a risk assessment (including likelihood and impact), to assign responsibilities and contingency plans to address risks, and to monitor risks and to adjust the management plan as needed.

Common risks in network implementation relate to funding uncertainties, stakeholder involvement, data management and availability, and changing contexts and policy environments. Several risks for the successful implementation of the European Network have been identified through the various activities in ALL-Ready. 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. particular attention to risks that relate to funding, focus of the network and engagement of stakeholders

4. Conclusions and outlook

The overall objective of this report was to provide strategic guidance for the sustainable, long-term implementation of the European Network, aiming to harness its potential to contribute to the acceleration of a transition to agroecology in Europe. The report introduces and outlines the tailored application of the business model concept for the development of an implementation plan for the European Network using the Flourishing Business Canvas and its perspectives and key questions. A synthesis of key issues and lessons from the activities and analysis done in the ALL-Ready project is provided and structured along the dimensions of an implementation plan, informing the development of such a plan by the members of the European Network of Agroecology LLs and RIs in the first phase of the Partnership AGROECOLOGY.

The 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. Its potential lies in facilitating 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. However, 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. Such key factors need to be considered in the different dimensions of the implementation plan including the overall ambition, vision and mission of the Network, the funding strategy, monitoring and evaluation of the performance of the Network, stakeholder engagement, communication and dissemination, capacity building, the added value of the Network, governance of the Network, upscaling strategies, thematic priorities, IPR and data management and risk factors.

The guidance provided for implementing a European Network of Agroecology LLs and RIs is based on the insights from the work and analysis done in the ALL-Ready project in preparation for the Horizon Europe Partnership AGROECOLOGY. The guidance will directly contribute to the activities of WP8 of the Partnership (Coordination of the European Network of Agroecology LLs & RIs) and will inform the implementation plan and governance scheme of the European Network to be co-designed by the coordination team and members.

Acknowledgements

This report is compiled for the H2020 ALL-Ready project (Grant Agreement No. 101000349). We would like to the initiatives, funding organisations and members of the pilot network for participating in the interviews and workshops and for their valuable input to the discussion on the guidance for the implementation plan of a European Network for Agroecology Living Labs and Research Infrastructures reported in this Deliverable.

References

- Abdelkafi, N., Täuscher, K. (2016). Business models for sustainability from a system dynamics perspective. *Org Environ* 29(1):74–96
- Araujo, L., Dubois, A., Gadde L-E (2003). The multiple boundaries of the firm. *J Manag Stud* 40(5):1255–1277
- Avila Castuera *et al.* (2023). Data Principles and Strategy for AgroEcoLLNet. Deliverable report D6.5. ALL-Ready Project.
- Äyväri, A. and Jyrämä, A. (2017). Rethinking value proposition tools for living labs. *Journal of Service Theory and Practice*, 27(5), pp.1024-1039.
- Bankvall, L., Dubois, A., Lind, F. (2017) Conceptualizing business models in industrial networks. *Ind Market Manag* 60:196–203
- Cavallo, D., Couture, I., Fosselle, S.; Bijttebier, J. (2024). Report on the capacity building validation activity and workshops. Deliverable report D5.3. ALL-Ready Project.
- Clauß, T., Ritala, P. (2023) Network governance institutionalization: Creating mutual value by harnessing and avoiding conflicts in interorganizational networks, *Journal of Business Research*, 163, 113880, <https://doi.org/10.1016/j.jbusres.2023.113880>
- Ehrenfeld, J. R. (2000). Industrial ecology: Paradigm shift or normal science? *American Behavioral Scientist*, 44, 229-244. <https://doi.org/10.1177/0002764200044002006>
- Elkington, R. and Upward, A. (2016). Leadership as enabling function for flourishing by design. *J Glob Responsib.* 7(1):126–144.
- European Network for Rural Development (ENRD) (2022) Networking. https://enrd.ec.europa.eu/networking_en [last accessed 30.10.2023]
- FAO (2018) The 10 elements of agroecology. Guiding the transition to sustainable food and agricultural systems. Food and Agriculture Organization of the United Nations, Rome.
- Flourishing Business CanvasSM, Interactive Detailed Guide, Produced by the First Explorers Community of the Tool for Leaders, Antony Upward / Edward James Consulting Ltd. Flourishing Startups, EIT-Climate-KIC, 2023. For more information, see <https://flourishingbusiness.org/>
- Hoveskog, M., Halila, F., Mattsson, M., Upward, A., & Karlsson, N. (2017). Education for Sustainable Development: Business Modelling for Flourishing. *Journal of Cleaner Production*,
- Hu, N., Chen, Z., Gu, J., Huang, S. and Liu, H. (2017) Conflict and creativity in inter-organizational teams: The moderating role of shared leadership. *International Journal of Conflict Management*, Vol. 28 No. 1, pp. 74-102. <https://doi.org/10.1108/IJCMA-01-2016-0003>
- Jonasz, G., Varga, K., Csonka, V. (2023). The ALL-Ready Pilot Network: Inspiring Examples and Experiences of Agroecology Living Labs and Research Infrastructures Across Europe and Canada. ALL-Ready Project. <https://doi.org/10.5281/zenodo.10074805>

- Karlsson, N.P., Hoveskog, M., Halila, F. and Mattsson, M. (2019). Business modelling in farm-based biogas production: towards network-level business models and stakeholder business cases for sustainability. *Sustainability Science*, 14, pp.1071-1090.
- Mambrini-Doudet, M., Gascuel, C., Gödel, B., McKhann, H. (2022). Vision and Mission of the future network. Deliverable report D1.3, ALL-Ready Project.
- McPhee, C., Schwarz, G. (2023). Living lab networks in agriculture: Success factors and policy implications. Agriculture and Agri-Food Canada and Thünen Institute, Ottawa and Braunschweig. <https://doi.org/10.5281/zenodo.10042097>
- Palo, T., Tähtinen, J. (2013) Networked business model development for emerging technology-based services. *Ind Market Manag* 42:773–782
- Riedel, A., Hobeika, M., Frelih-Larsen, A., Varga, K., Fosselle, S., Bijttebier, J. (2023). Booklet on overall stakeholder recommendations for the implementation of the future European Agroecology LL and RI Network. Deliverable report D3.3. ALL-Ready Project.
- Schwarz, G., Hobeika, M., Stojacic, I., Gödel, B., Perez, RC. (2022). Report on the added value of the European Network. Deliverable report D4.1. All-Ready project. 28 p, <https://doi.org/10.5281/zenodo.7447971>
- Sörensen, E. and Torfing, J. (2009) Making governance networks effective and democratic through metagovernance. *Public Administration*, 87: 234-258. <https://doi.org/10.1111/j.1467-9299.2009.01753.x>
- Stojacic, I., Schwarz, G., Riedel, A., Hobeika, M., Fosselle, S.; Bijttebier, J., Gödel, B., Cavallo, D., Couture, I., Haller, L. (2024). Report on the preconditions for the sustainability of the Network and recommendations for its long-term success. Deliverable report D4.2. ALL-Ready project. <https://doi.org/10.5281/zenodo.10728338>
- Thorsøe, M.H., Berg, T., Schwarz, G., Gödel, B. (2023). Towards a Network of European Agroecology Living Labs: Advancing the agroecology transition using living labs. Deliverable report D2.6. ALL-Ready project.
- Upward, A., Davies, S.N. (2018). Realizing the flourishing imperative. In: Wunder T (ed) *Rethinking strategic management: competing through a sustainability mindset*. Springer International, Heidelberg