Policy brief

Accelerating agroecology transition using living labs: policy enablers and barriers

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In Europe, policy enablers for agroecology transition with living labs as key research and innovation mechanisms include: adequate research funding and priorities, policy directions and advisory support. These enablers affect abilities to structure and operate living labs.

Low quality or absence of these enablers renders them barriers to transition. There is considerable geographical variation: barriers are most notable in Southern and Eastern parts of Europe. Policy siloes and a lack of systems thinking in policy is a barrier across Europe.

Agricultural knowledge and innovation systems (AKIS) are central to supporting living labs. AKIS are composed of farmers and their organisations, research and advisory systems.

However, the capacities of AKIS' across Europe to support the development of living labs vary considerably. Differentiated approaches are needed to strengthen the capacity of AKIS, and should focus on geographical 'hotspots' where AKIS are particularly weak.

Source:FiBL

Policy context and challenge

The ambitions of the Green Deal and the Farm to Fork strategies require a green transition of agri-food systems, along the lines of agroecology re-design. New knowledge, new technologies and new farming systems need to be put in place at an increasingly swift pace.

To achieve this, EU policy and research programs have assigned central roles to AKIS actors, as promoters of user-driven innovation, co-creation of knowledge and the integration of research and innovation processes.

Living labs and decentralised research infrastructures, combined in multi-stakeholder, open innovation arrangements have been singled out as particularly useful research and innovation mechanisms for accelerating agroecology transition.

This entails bringing farmers, researchers, advisory services, authorities and policy levels closer together in collaborative research and innovation processes.

The co-funded Horizon Europe Partnership 'AGROECOLOGY' is a core research investment in this regard. It will address the complexity of agroecology transition using living labs, through a mixture of calls and supporting activities.

Approach and results

This policy brief is based on two ALL-Ready mapping tasks: (i) *The mapping of Policy Drivers* (Thorsøe *et al.*, 2022) for agroecology transition. Using qualitative methods, data was collected through National Contact Points, representing research, policy and practice in 23

countries across Europe. (2) *The Mapping of Competency Needs* (Vervoort *et al.*, 2022) focusing on living labs, in implementing and managing research and innovation for agroecology transition. Here the majority of respondents represent living labs and related initiatives.

Summary of results:

- **Funding barriers**

Funding for research and innovation in EU Framework programmes reach parts of Central, Eastern and South-Eastern Europe only to limited extents. In many countries in these regions low levels of basic funding for research aggravate this situation.

However, in general funding gaps exist for research activities that go beyond scientific experimentation. Funding for the open innovation activities that are associated with living labs, which entail training, demonstration, processes of social mobilisation and networking, has been limited.

Related to the funding gaps, research funding is characterized by short term funding horizons: Research involving living labs connote lengthy and often non-linear processes required to ensure collaborative research, with end-users at the center.

- **Barriers associated with perceptions of agroecology, and policy directions**

Across Europe, there is considerable variation with respect to understandings of agroecology as 'practice', 'science' or 'movement'. However, regardless of emphasis, the concept is not well understood in general. This state of affairs has implications for the envisioning and planning of agroecology transition pathways at both policy and practice levels.

Most national policies do support practices associated with agroecology, including fertilizer and manure management, diversified crop rotation and integrated pest management. However, these support schemes are rarely associated with visions of agroecology transition.

ALL Ready

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Living lab practitioners emphasize that improving understanding of agroecology will enhance their abilities to frame agendas, work in more cross-disciplinary fashion and foster collective action for agroecology transition

- **Operational barriers to living labs**

Applied to the primary sector, the living labs concept is novel in many parts of Europe. Reflecting this novelty, living labs lack methodological capacities for implementation: Living labs experience difficulties in setting up farm experiments, and facilitating and structuring co-creation processes. Jointly monitoring and evaluating as well as documenting and communicating progress and results (i.e. knowledge sharing) is also challenging.

This lack of skills makes it difficult to 'stay innovative', and eventually affects the potential for scaling-up, i.e. convince other farmers of the wisdom of adopting agroecology practices.

Living lab practitioners also point to the well-known 'aging farmer population' and succession problematic, as a barrier to innovation and diffusion.

- **Barriers associated with AKIS**

AKIS capacities in general are seen to be inadequate for fostering transition, and more so in Southern and Eastern parts of Europe. This renders these innovation systems ill-equipped to promote multi-stakeholder innovation and other key user-centered knowledge generation practices.

Degrees of fragmentation of AKIS elements, into independent knowledge networks of farmers, researchers, and advisory systems, rather than integrated systems, also vary considerably. The lowest levels of integration are found in Southern and Eastern Europe. Limited AKIS integration with underpinning public policy is a barrier throughout Europe.

Indeed, considering that the involvement of end-users is an important element of research for agroecology transition, poor relationships between farmers, advisory services and the research community are a severe barrier.

Advisory systems in general often appear to lack systems and transdisciplinary perspectives, and hence the holistic thinking required for agroecology transition.

Moreover, a number of respondents find that the values that underpin agri-food production systems and associated AKIS elements, do not work in favor of a transition towards agroecology.

Conclusions

Displaying considerable geographical variation, the severity of the identified barriers, may usefully be understood in contexts of relatively strong or weak national and regional AKIS.

Levels of integration of AKIS elements, with the underpinning public policy that is needed to support AKIS actors as transition networks are key indicators of barriers to agroecology transition.

This implies that capacity building aimed at addressing these barriers requires differentiated, place-specific approaches.

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Key recommendations

- Design agile funding arrangements, nationally and transnationally, to reflect the relatively longer timescales needed for research in living labs
- Strengthen AKIS capacities through training on systems thinking, agroecology concepts and perspectives
- Apply differentiated approaches to strengthen the capacity of AKIS, considering geographical 'hotspots' where AKIS are particularly weak.
- Align funding for supporting AKIS to ensure a better geographical balance
- Design research themes in funding programmes to reflect the place-based nature of solutions for, and perceptions of, agroecology transition
- Strengthen methodological development for living labs with respect to the governance of living labs, including the facilitation of participatory processes and communication.
- Strengthen capacities of living labs to design and implement scientific experimentation.
- Strengthen capacities of living labs to document and detail innovation through institutionalised monitoring and evaluation processes
- Provide support for capacity building specifically targeted at young farmers to mitigate the barrier of generational succession that is rooted in the wider structural constraints that face agriculture.

References

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About ALL-Ready: 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 (IR) that will enable the transition towards agroecology throughout Europe. Based on the premise that agroecology can strengthen the sustainability and resilience of farming systems, the project will contribute to addressing the multiple challenges that they are facing today including climate change, loss of biodiversity, dwindling resources, degradation of soil and water quality.

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