

**5th ESP
Europe Conference**
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Observing biodiversity and ecosystem services with farmers: bottom-up pathways for engagement and knowledge co-production

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“Working with farmers to build biodiversity sensitive farming and realise agrobiodiversity management across ecosystems.”

Farmer Clusters: Group of farmers supported by a facilitator working together to improve biodiversity and the ecological health of their connected farmlands.

11 clusters in 9 countries

Farming systems: Arable, grassland and grazing, orchards, olive groves, organic and conventional



Working with Farmer Clusters



- ✓ Transform agricultural production and land management towards more integrated ecosystem management.
- ✓ Improving and restoring degraded ecosystems due to agricultural intensification.
- ✓ Building landscape scale resilience in the face of climate change.

Co-developing activities in Farmer Clusters with and for farmers to enhance local capabilities for biodiversity and ES monitoring.

➡ **Action-based research**



United Kingdom Active
Buchan Farmer Cluster



United Kingdom Active
Cranborne Chase Farmer Cluster



Austria Active
Mostviertel Farmer Cluster



Czech Republic Active
Velké Hostěradky Farmer Cluster



Estonia Active
Kanepi kihlkund Farmer Cluster



Luxembourg Active
Born Farmer Cluster



Austria Active
Burgenland Farmer Cluster

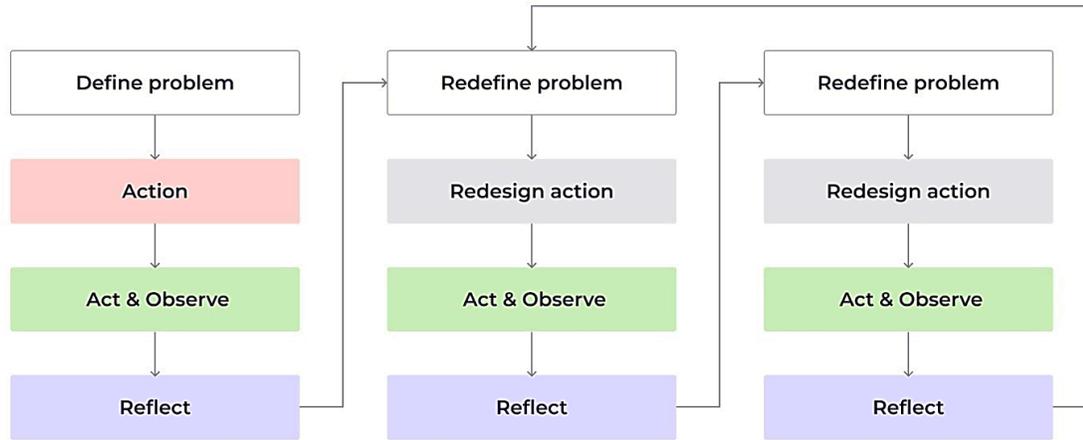


Italy Active
Val Graziosa Farmer Cluster



Spain Active
Cazadores de Aguilar Farmer Cluster

Action-based research



Model of local stakeholder engagement at the science-society interface

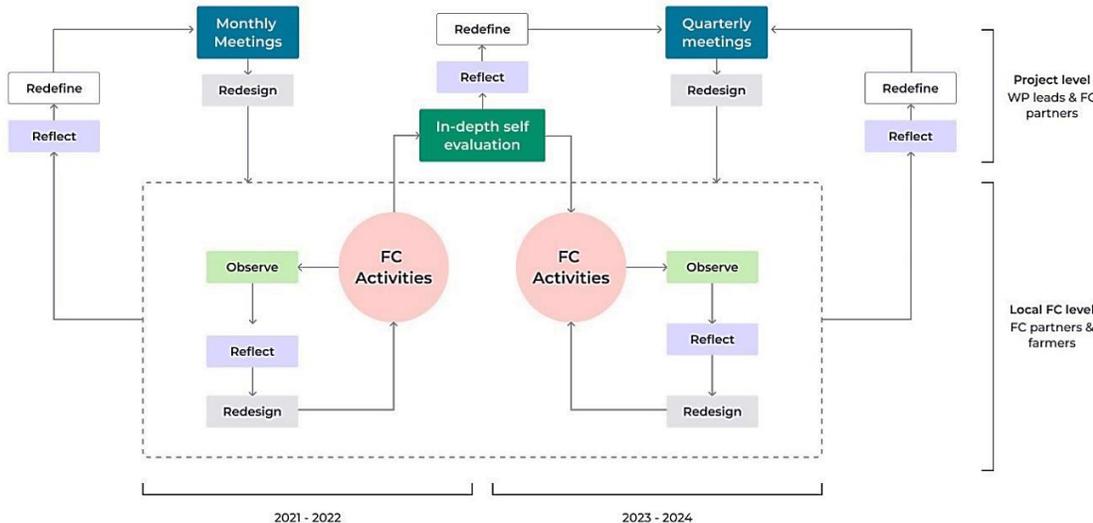
(Danielsen et al., 2022)

- **Modes of interaction and patterns of collaboration** between scientists/researchers and local communities.

Concept of value creation stories

(Wenger-Trayner et al., 2011)

- Communities can develop a common purpose and achieve **value-added outcomes** via shared activities mediated by **strings of storylines and developing narratives**.



Engagement and activity pathways



Pathway 1: Sporadic engagement and interaction, micro narratives

Contained engagement activities, loose string of interactions, limited potential for building lasting shared focus on topics/aims. Collaboration and relationship building are restricted to discrete activities.



Pathway 2: Recurring engagement and interaction, arching narratives

Recurring engagement with a consistent topic, enhanced potential for a shared focus on aims/outcomes, collaboration is reinforced through cross-referenced activities and shared practices.



Pathway 3: Continuous engagement and interaction, coherent stories

Activities develop into one consistent action over time, clear shared focus and purpose. Collaboration is built through the activity and essential for it succeed over time.



Pathway 4: Other types of active engagement, interactions and narrative forms

Other continuous and discontinuous forms of engagement with varying degrees of collaboration and levels of shared purpose between farmers, FC facilitators, experts external to the FC and the wider communities, including the general public and citizens.

 Farmers  Facilitators, Scientists



Pathway 2: Observing and managing grassland diversity

Aims

Encouraging farmers to observe and document grassland biodiversity and increase awareness of their grasslands, using citizen science tools (iNaturalist).

Activities

- ✓ iNaturalist project and training for farmers – opportunistic monitoring
 - ✓ 560 observations, 12 farmers, 310 species
- ✓ BioBlitz with farmers during FC event – joint observations
- ✓ Grassland monitoring on newly sown meadows – joint observations
- ✓ Biodiversity farm portraits co-created with farmers – communicating results

Change of awareness and practice

- ✓ Reestablish heritage meadows, by turning intensively managed grassland back to extensive grassland and resow local seed mixes.



Pathway 3: Wildlife camera trapping

Aims

Raise awareness of the old orchards' function for biodiversity.
Highlight the presence of nocturnal and hard to sight animals and expanding overall knowledge of wildlife presence in orchards.

Sequence of activities

- ✓ Co-developing the idea of camera traps in orchards with farmers
- ✓ Installing camera traps together with farmers
- ✓ Farmers collecting and screening images from cameras
- ✓ Pre-sorting of images using CS tool (Picture Pile) by farmers and further analysis of images by scientific partner (LIST)
- ✓ Feedback and discussion of results with farmers

Change of awareness and practice

- ✓ Increased understanding of importance of maintaining and restoring heritage orchards.
- ✓ Considerations on change of grassland/grazing management.



Some key insights and outlook

Time availability and effort for farmers – limiting factor

Role and capacity of facilitator/facilitating team – critical for ensuring leadership and farmer by-in

Perceived exposure of farmers – vulnerability vs. opportunity



Pre-post intervention interviews: assessing the effects of farmers' engagement on awareness and willingness to adopt biodiversity-friendly and ES enhancing farming practices.

(Led by Uni Osnabrück)





www.recodo.io



New Online Platform!

At the frontiers of farming + biodiversity...



News + Resources for:

Researchers,
Farmer Clusters,
Local leaders,
Policymakers,
NGOs.

Tools + Materials on:

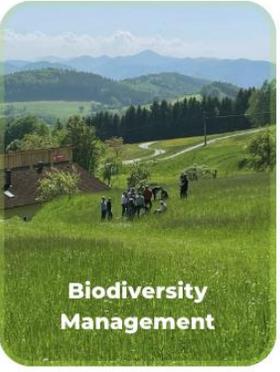
- Ecosystem assessment
- Biodiversity monitoring
- Biodiversity management
- Knowledge exchange
- Local action



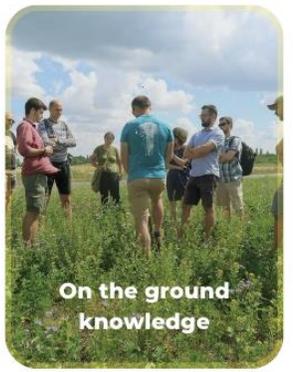
Multi-stakeholder platform



Ecosystem Assessment



Biodiversity Management



On the ground knowledge

Discover relevant resources through the resource finder. Access dedicated tools like software for Farmland Ecosystem Assessment and management and interactive datasets from across the Cluster network.

Explore automated and Cluster-managed news feeds curating interesting stories from news sites around the web and from on the ground. Access media on key activity, topics, tools and new research publications.

Get involved with the event series 'Recodo In Real Life', running in 2025 to bring stakeholders together with the platform's resources. The series will include in-person events, webinars and a final conference.

Resource library and tools

News and Media

Event Series

Create free online profiles and share news from your Farmer Cluster, joining FRAMEwork's seeded network. Access best practice resources for starting and running successful Clusters - like guidelines, an interactive course and citizen science materials for local community engagement.

Farmer Cluster Network Resources



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