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Transition en Territoires de l'Agriculture, l'Alimentation et l'Environnement

# Exploring open innovation in ALL: insights from the French TETRAE program



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## What characterizes the dynamics and outcomes of diverse open innovation initiatives for agri-food systems transitions, and what lessons emerge for their governance and collaboration?

Agro Living Labs (ALLs) have emerged in France as hybrid spaces connecting research, practice, and local actors to support agroecological transitions (McPhee et al., 2021; Yousefi and Ewert, 2023). This study explores their diversity within TETRAE, a participatory research program established in 8 French regions, using a mixed-methods approach: a questionnaire to key resource persons from hosted open innovation (Chesbrough, 2003) initiatives (n=49), leading to the identification of four configurations, and three contrasting case studies. Results show ALLs as evolving

frameworks balancing openness and strategic steering. Organizational adaptability responds to funding constraints and mismatches between research and territorial dynamics. Knowledge co-production shifts between expert-led and locally framed processes. Territorial embeddedness builds trust and legitimacy but can limit renewal. This typology refines understanding of ALLs and offers insights on territorial food system transitions.

### 4 propositions

- ALLs operate through **hybrid governance**, combining formal coordination and informal relational dynamics (Gava et al., 2025)
- **Organizational adaptability** is key to remain responsive in uncertain, evolving contexts (Aare and Hansen, 2024)
- The **diversity and complementarity of knowledge** involved shape the co-production processes and outcomes types (Beaudoin et al., 2022)
- The evolution of **territorial embeddedness** in ALLs determines their coordination modes and transition potential (Engels et al., 2019)

### 3 case studies

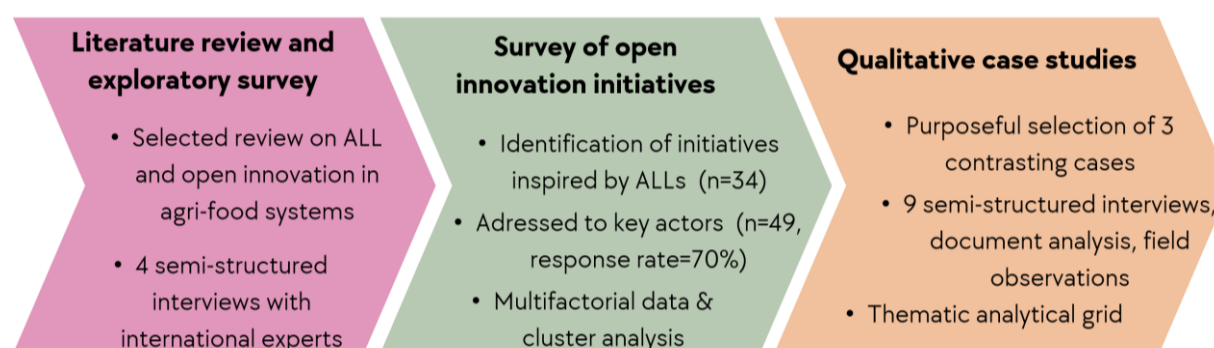
We examined three cases through five lenses: **main goal, format and tools, key actors and governance, knowledge and adaptation, and territorial anchoring.**

**TFC (Ariège)** – Territorial Food Project, “Dynamo” demonstrator and solidarity food fund to transform local food systems for sustainability, equity and resilience. With formal committees and informal facilitation. Co-constructs food sovereignty with pragmatic tools, though some research is seen as abstract. Strong local roots.

**PERCEVAL (Bourse des Arbres)** – Mediation platform, participatory surveys, mapping and planned online marketplace to make scientific knowledge actionable for forest ecosystem services. With shared steering and strong mediation. Combines models and local knowledge with tailored tools for wide use. Builds on DHDA networks (Grand Est).

**AgriAURA2050** – Farmer workshops, climate models, digital platform and field trials to support climate adaptation through co-produced scenarios and solutions. With scientific council and participatory governance. Merges climate modeling with collective ideas, shifting from top-down to bottom-up. Regional scale; formal partnerships (AURA).

### Methods



### Results

#### Four groups of ALLs

	Collaborative networks (N=16)	Participatory research-led initiatives (N=14)	Transformative ALLs (N=14)	Technical participatory (N=5)
<b>Governance</b>	Shared, adaptive coordination among research & territorial actors	Academic leadership; research-driven agenda	Multi-actor, collaborative; explicit transformative aims	Largely internal to research; sector-focused aims
<b>Participation &amp; organization</b>	Strong co-construction; organized as observatories, networks, collectives	Partners mainly consulted; structured as working groups	Active co-definition; diverse multi-actor setups	Participation limited to technical/product focus; small, specialized groups
<b>Knowledge orientation</b>	Empirical locally rooted knowledge	Scientific knowledge prioritized	High transdisciplinarity	Empirical & technical knowledge for value chains
<b>Territorial anchoring</b>	Strong anchoring in local contexts; territory co-defines priorities	Mainly functional; territory as test site	Deeply embedded; territory as driver of change	Functional; territory used for piloting

### Conclusions

- ALLs do not fit a single model but reflect **varied configurations** shaped by local contexts, actor strategies, and institutional settings. It reveals **flexibility** rather than conceptual drift.
- Governance balances **openness** with **coordination**, depending on **trust**, goals, and resources, highlighting **dynamic adaptation**.
- ALLs develop progressively through cycles of experimentation, learning, and reconfiguration, suggesting a **continuum of maturity levels of ALLs**.
- Local anchoring builds legitimacy and resource mobilization but can create path dependencies and scaling limits; successful ALLs combine **territorial roots** with **broader network connections**.