CLEVER FOOD

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The Food 2030 Unlock Strategy: Guidelines for a Multi-level and Systemic Approach to Overcome Lock-ins and Barriers.

Objective of the Policy Brief

To provide policymakers and food system stakeholders with concise policy recommendations and actionable guidelines at the macro (international), meso (national–regional), and micro (local) levels for implementing the CLEVERFOOD's Food 2030 Unlock Strategy, supported by case examples from two other FOOD 2030 projects. The aim of this strategy is to break systemic lock-ins and foster sustainable food value chains across Europe.

About the projects

VISIONARY and BEATLES are two sister EU-funded projects of CLEVERFOOD dedicated to accelerating the transition toward sustainable, climate-smart, and socially fair agri-food systems. Both investigate behavioural drivers, value-chain dynamics, and systemic lock-ins that hinder change, while identifying levers and policy solutions that can enable the widespread adoption of sustainable farming and food practices. This Policy Brief draws on key insights from both projects, with a focus on the production and the sustainability of farming practices.

The Food 2030 Unlock Strategy approach towards lock-ins and barriers in Europe's food systems

Despite the growing evidence that the current food systems and our lifestyle have adverse effects on health and environment, and numerous initiatives and efforts to address harmful effects (e.g. food-strategies, councils, -labeling, -hubs and living labs, and more plant-based food diets), it seems that current mainstream food systems, policy imperatives as well cultural preferences/ lifestyle are impervious to change.

This is why the CLEVERFOOD project has put forward the Food 2030 Unlock Strategy (FUS) which uses Focus Group-guided insights on lock-ins and barriers. These focus groups engaged Transition Management Initiatives (TMIs), such as (Policy) Living Labs and other change makers, especially addressing social and/or technological innovation as drivers for change.

FUS food system approach builds upon (1) multi-level pathways of geographic scales, jurisdictional responsibilities and stakeholder environments; (2) evidence-based interventions for strengthening the Science-Policy-Interface; and (3) a co-monitoring approach at different time intervals (1-5 years) in collaboration with the Food 2030 network food innovators.

This Policy Brief illustrates practical approaches for implementing FUS through insights from two case studies from the CLEVERFOOD sister EU projects BEATLES and VISIONARY. FUS features a multi-level approach for overcoming systemic (external) lock-ins and operational (internal) barriers (see **FIGURE 1**) at the macro, meso and micro level.

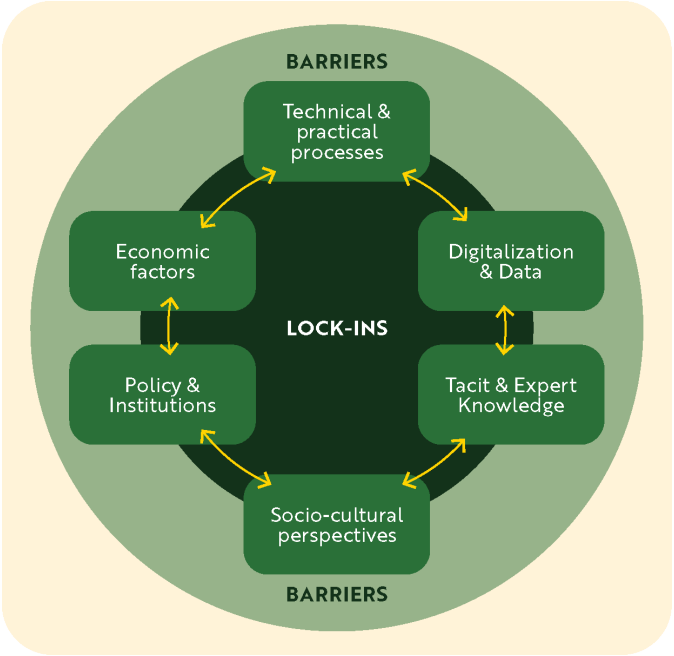

FIGURE 1: Typical lock-ins and barriers in a transition towards sustainability

Definitions

Lock-in (external forces): Deep-rooted conditions that maintain the current linear system, like investments in large-scale farming, poverty or dependency in energy prices. These are hard to change because they reinforce each other and keep the dominant system in place.

Barrier (external & internal): Specific obstacles that block progress, such as lack of funding for small farmers, regulations or public perception. These can eventually be removed with targeted actions.

The complexity of macro-level policies, such as the European Common Agricultural Policy (CAP) and Multi-Annual Financial Framework (MFF) on the one hand and, on the other, national and regional network organisations striving for integrated approaches at the meso level and the reality of farmers trying to make loose ends meet (micro level), requires resource intensive adjustments and fine-tuning. Aware of these challenges, the recent EU CAP Network Report (May 2025) acknowledges substantial CAP-related administrative burdens for farmers, generating both internal (farmer's time for paperwork, compliance with complex rules) and external costs (advisory services). Besides the need for support measures at the national and regional level, there are also cultural barriers as well as deficits in tacit knowledge and digital know-how at the farmstead level.

Real-world lessons and leverage points from two EU projects

Case study 1: How can organic farmers be enabled to adopt climate-smart agricultural (CSA) practices?

Project: BEATLES
Author: Blanca Casares Guillén, AEIDL

Location(s): Navarra (ES) & Bavaria (DE)
Timespan: 2022 - 2026

Barriers & lock-ins identified:

- Lack of tacit knowledge & expertise at farmer level regarding CSA practices.
- Economic factors such as the perceived cost of implementing CSA practices.
- Socio-cultural barriers relating to behaviour and identity of farmer groups regarding adoption of new practices.
- Institutional barriers related to the alignment of CSA recommendations and existing organic certifications.

Interventions

- **Macro**: Align Multi-Annual Financial Framework (MFF) and CAP instruments under National and Regional Partnership Plans (NRPP) for 2028-2034 with behavioural insights and value-chain coordination, introducing carbon farming incentives and performance-based payments.
- **Meso:** Strengthen regional advisory networks (e.g., INTIA, Naturland) to provide integrated, climate-organic support services, demonstration farms, and cooperative learning platforms.
- **Micro:** Apply behaviourally informed approaches—like social norm messaging, peer

learning, and storytelling—to overcome risk aversion and identity conflicts within organic communities.

Takeaway message for policy makers

To enable climate-smart transitions in organic farming, a coordinated multi-level strategy is required. CAP instruments under the upcoming NRPPs, supported by MFF funding, must align economic incentives with behavioural insights and value chain coordination. Tailoring support to organic farmers' unique motivations and constraints is essential to achieving the EU's sustainability goals.

FUS-based assessment

There appears to be major gaps between resolving issues of administrative burden at different governance levels and the necessary attention to social-cultural barriers and regional-local specifications. After all, farming is about entrepreneurship so that both organic farming and climate-smart-agriculture (CSA) should be considered as rewarding business opportunities beyond 'checking boxes of administrative forms' to receive subsidies. BEATLES demonstrated that effective engagement came from a series of co-creation activities:

- Participatory, multi-stakeholder, value-chain engagement via co-creation workshop conducted with 15-25 stakeholders.
- Behavioural experiments as well as surveys and interviews to map decision-making factors influencing farmers and consumers.
- Business strategy and policy recommendation development, aligning behavioural insights, farmer motivations, institutional support, research and value chain actors.
- Multi-actor working group at the EU level (coordinated by AEIDL, the European Association for Innovation in Local Development), ensuring that insights were connected to macro-level dialogues and policy discussions.

The above co-creation activities illustrate that offering financial support for specific farming practices should be considered as a (temporary) first step facilitating the transition towards a more sustainable system. Effective engagement came from participatory advisory systems and peer-to-peer exchanges that respected organic farmers' values and autonomy. However, policy instruments often lack flexibility for farm-scale realities and failed to integrate behavioural incentives, limiting the uptake of CSA practices.

Case study 2: Test design principles for collective actions to improve water resource sustainability

Location(s): Spain, Hungary, Denmark
Timespan: 2022 - 2026

Organization VISIONARY
Author: Raluca Barbu, Highclere Consulting

Barriers & lock-ins identified:

- **Economic factors:** Financial and administrative barriers for farmers to engage in cooperative water management.
- **Policy & Institutions:** Fragmented land ownership and lack of collective decision-making structures.
- **Digitalisation & Data:** Limited data on

groundwater levels, pollution, and consumption

- **Socio-cultural barriers:** Low trust among farmers and between users and public authorities.

Interventions

- **Macro**: CAP eco-schemes and agri-environmental payments linked to water efficiency. Implementation of national water laws and Water Framework Directive.
- **Meso:** Establishment & legal recognition of collective irrigation/groundwater associations. Basin authority involvement and policy experimentation platforms.
- **Micro:** Farmer-level monitoring of water use and nitrate levels. Adoption of drip irrigation, scheduling tools, and drought-resilient crops. Peer-enforced rules for abstraction, shared infrastructure, and penalties

Takeaway message for policy makers

Sustainable water governance requires a balance between bottom-up collective action and supportive top-down frameworks. Key enabling conditions include clear water rights, farmer participation, shared monitoring, financial incentives and proportional enforcement. Policies should empower local water user groups while ensuring accountability and ecological limits.

FUS-based assessment

The approach uses a set of design principles (Cox et al., 2010[1]) as a diagnostic tool to assess the institutional robustness of water management schemes in the three cases. The barriers observed are:

- Fragmented land ownership and a lack of collective decision-making structures.
- Low trust among farmers and between users and public authorities.
- Weak or inconsistent enforcement of water abstraction rules.
- Limited data on groundwater levels, pollution, and consumption.
- Over-reliance on top-down regulation without stakeholder ownership.
- Financial administration burden for farmers to engage in cooperative water management.
- Hungary's system has potential but struggles with implementation and collaboration.
- Denmark's top-down approach lacks user involvement, which limits its effectiveness.

It appeared that while the institutional design principles offer a valuable lens to assess institutional fit, they provide only limited insight into the individual-level motivations, constraints, and social dynamics that shape farmer participation. Institutional design is necessary but not sufficient as implementation depends, among others, on economic, environmental and behavioural factors. Effective engagement came from participatory advisory systems and peer-to-peer exchanges that respected organic farmers' values and autonomy. However, policy instruments often lacked flexibility for farm-scale realities and failed to integrate behavioural incentives, limiting the uptake of CSA practices.

Breaking the Deadlock: Policy Recommendations for a Sustainable Food Future.

To address systemic lock-ins and barriers, the case study leaders have identified several strategic actions across the micro, meso and macro levels (see **TABLE 1**).

According to FUS multi-level approach, the observed barriers and lock-ins will require that local transition actors (e.g. farming associations, Living Labs, etc.) are supported by concerted action at the regional (meso) and international (macro) scale. Next, we provide policy recommendations for each of key policy messages.

[1] Cox, M., Arnold, G., Tomás, S. V. (2010). A review of design principles for community-based natural resource management. Ecology and Society 15.

TABLE 1: Selected FUS strategic actions targeted by the selected case studies.

FUS Strategy Actions	BEATLES	VISIONARY
MACRO		
Invest in Sustainable and Diverse Farming & Food Systems	X	X
Harmonisation of international standards, indicators and policies	X	
Address socio-cultural lock-ins		X
MESO		
Strenghthen Value Chains and Market Access	X	
Enhance Food System Resiliance	X	X
Foster Collaboration & Governance	X	X
MICRO		
Strenghten Rural-Urban Links		X
Establish Food Governance Structures	X	X
Behaviour change	X	

As **TABLE 1** indicates, the scope of suitable recommendations is much larger than those that are addressed above. However, we consider the multi-level nature of these recommendations highly significant in addressing the pressing issue of food system change as a wider political and societal challenge.

Key policy messages deriving from the two cases

1. CAP instruments under NRPPs, supported by MFF funding, must align economic incentives with behavioural insights and value chain coordination.
2. Sustainable water governance requires a balance between bottom-up collective action and supportive top-down frameworks.

As both messages point in the same direction, namely more integrated and coordinated efforts at different governance levels, we like to emphasize the way in which FUS actions can contribute to tackling the above challenges. For example, with special attention to the role of Transition Management Initiatives, such as (Policy) Living Labs, thereby especially addressing social and/or technological innovation as drivers for change.

MACRO-LEVEL: Invest in Sustainable and Diverse Farming & Food Systems

In principle, existing schemes such as agri-environmental payments under CAP offer support to CSA (e.g. organic farming) or water-efficient farming. And while it is true, that Green investment plans (over €100 billion per year) have recently shifted towards more flexible and performance-based systems in partnership with national and regional authorities, its focus on clean energy, rural development, and climate adaptation is rather unspecific when it comes to addressing the food system at large - risking a patchwork of fragmented measures with no integration into regional and municipal strategies (see Eurocities 2025), no security for new business models along the whole food chain and only small incentives for social and technological innovation. The current investment schemes are hence far away from the urgently needed system approach (FAO 2025; FUS 2025).

Recommendations:

- Introduce and anchor the concept of a Food System Approach to the post-2027 NRPP with clear emphasis on social and technological innovation at the level of regions and municipalities. creating clear and coherent

connections along the full food chain.

- Make payments dependent on regions and municipalities to set up long-term food strategies strengthening urban-rural links, reducing the ecological footprint of food consumption, shifting towards alternative protein sources and requiring industry players to actively support these objectives.
- Engage with the European Food Observatory (JRC or EEA) with satellite partner organisations at the national and regional level to monitor progress and guide the investments.

MESO-LEVEL: Enhance Food System Resilience

FUS emphasises creating integrated and resilient food systems for city-regions considering ecological limits. This approach to resilience involves balancing food production with economic, social, and environmental factors, often using a systems thinking framework to navigate shocks and stressors like the COVID-19 pandemic or climate change. Sustainable food regions (RUAF 2023) are based on the principles of the ecological footprint assessment (SUSMETRO 2022) and regionally available food production, aiming to improve food system resilience through a holistic approach, and implementation of knowledge transfer, community engagement, experimentation, innovative business models, procurement, circular economy principles and food system education.

Recommendations

- Improve the viability of agricultural businesses, especially micro, small, and mid-sized sustainable farms via landscape-level planning, co-creation processes and multi-actor involvement along the food chain.
- Invest in diversification of product lines, sustainable agricultural practices incl. community supported agriculture, awareness campaigns, social activities. Make use of impact investment brokerage events to open new opportunities outside existing subsidies.
- Introduce evidence-based food planning schemes at the level of sustainable food regions allowing long-term regional development perspectives.

MICRO-LEVEL: Establish Food Governance Structures

Projects like BEATLES and VISIONARY offer just a small subset of a widely acknowledged body of knowledge that derives from research-driven on-the-ground stakeholder exchange with practitioners, policymakers and citizens. The two case examples presented in this Policy Brief, demonstrate that tacit knowledge, motivation, regional identity, and cultural dispositions and alignment play a key role when engaging with farmers (and consumers) in food system transition. Notably, a shared value system with regard to personal and societal ambitions. Currently, many of the emerging governance structures, such as Living Labs or other Transition Management Initiatives are temporary and limited in scope - which poses high risk to the overall long-term mission of a food system transition.

Recommendations:

- Define and facilitate intermediate structures to define and implement collective strategies with the participation of stakeholders from the quadruple helix (government, industry, academia, citizen) and from rural and urban environments, building on an integrative and innovative food system governance.
- Harmonise and further develop existing participatory methods and tools for co-creation, monitoring and knowledge-sharing in the food system transition across the food-systems levels.
- Provide long-term perspectives for LLs and other TMIs at the local-regional level to support farmers and to bridge the gap between urban-rural processes, by encouraging and nurturing multi-level cooperation that shaps a system approach of food.