FUTURES4FOOD

Connecting futures and stakeholders of food systems by designing effective transition trajectories

Contract - B2/202/P3/FUTURES4FOOD

SUMMARY

Context and objectives

The FUTURES4FOOD (F4F) project was developed in response to the pressing need for a sustainable transformation of our agri-food systems. These systems play a major role in pushing ecological boundaries—impacting climate, biodiversity, nutrient cycles, and land use—and are tightly connected to human health, equity, and wellbeing. Despite growing awareness and scientific consensus on the need for change, food system transitions remain difficult to achieve. The complexity of these systems and the diversity of stakeholder interests make them "wicked problems," resistant to simple solutions or top-down policy interventions.

To address this challenge, FUTURES4FOOD aimed to design and test a transdisciplinary and co-creative methodology for guiding transitions in food systems. This methodology, called the Designing Feasible Futures Framework (DF3), was applied and evaluated in two case studies: the cereal sector and the protein transition in the Belgian food system. The overall ambition was to explore how this method could contribute to systemic change and how it could be embedded in policymaking processes.

The project had three main objectives:

1. To develop and test the DF3 framework—a structured, participatory approach to sustainability transitions.
2. To co-create visions and strategies for sustainable futures with stakeholders in two food system areas: cereal production and the protein shift.
3. To explore how DF3 can be aligned with new forms of governance capable of tackling complex societal problems.

The DF3 approach combines insights from transition theory, systems thinking, and transdisciplinary research. It is structured around four key modules:

- Framing: jointly identifying and defining problems;
- Complexity: mapping systemic interconnections and causal relationships;
- Multi-actor interaction: engaging stakeholders across the food system;
- Futures: co-developing visions and roadmaps toward a desirable future.

A key innovation is the integration of three types of knowledge essential for sustainability transitions: systems knowledge (understanding current realities), target knowledge (envisioning preferred futures), and transformation knowledge (knowing how to move from the present to the desired state). The methodology was implemented using participatory workshops, interviews, systems mapping, and action research.

Case study 1: The Belgian cereal sector

Cereals play a central role in Belgian agriculture, yet most of the production is used for animal feed or bioenergy. The value chain for food-grade cereals is underdeveloped, and stakeholders often work in isolation. The F4F project initiated a national process to foster dialogue, identify system barriers, and co-create a shared vision.

Through interviews, stakeholder mapping, and participatory workshops, several key challenges—termed "stakes"—were identified. These included the need for better infrastructure, tailored advisory services, improved value distribution, and stronger policy support. Based on this analysis, the group co-developed a shared aspiration:

"By 2050, one in two breads, biscuits or beers consumed in Belgium will be produced with Belgian grains, and one in three will be organic."

To move towards this goal, four working groups were formed, each tackling a specific area: seed multiplication, market demand, value chain fairness, and institutional development. While the national dialogue was well received, the project also highlighted limitations. In particular, there was limited autonomous momentum among stakeholders and a strong reliance on the research team for coordination and follow-up.

Case study 2: The protein transition (Green Deal Protein Shift)

The second case study built on the Green Deal 'Protein Shift on our Plate' (GDPS), an initiative launched by the Flemish Government to encourage more plant-based protein consumption. Its main objectives were to shift the population's protein intake ratio from 60% animal / 40% plant to 40% animal / 60% plant by 2030 and to reduce total protein consumption.

F4F researchers contributed to the design and evaluation of this initiative, introducing systems thinking tools such as systems mapping and a theory of change based on "triggering positive tipping points." These tools helped identify five systemic conditions for successful transition: affordability, quality, accessibility, cultural acceptance, and food skills.

Although the GDPS successfully raised awareness, promoted collaboration, and generated concrete actions, it also faced challenges. Stakeholders differed in their motivations (e.g. health vs. sustainability), and roles were not always clearly defined. In some cases, lack of mandate or time prevented active engagement. Nonetheless, the initiative had clear impacts: organisations

implemented new actions, built new relationships, and gained valuable insights into food system transformation.

Cross-case insights and lessons learned

The two case studies offered complementary perspectives. In the cereals case, the initiative was bottom-up and researcher-led, requiring substantial effort to build trust and legitimacy. In contrast, the GDPS was government-led, which gave it greater authority and visibility but also created higher expectations among stakeholders.

Both cases showed the importance of early engagement, clear roles, and adaptable facilitation. They also revealed how transdisciplinary processes are shaped by context: institutional history, timing, leadership dynamics, and the balance between concrete results and systemic learning all played a role in the outcomes.

Effective transition management requires careful attention to leadership and collaboration. Stakeholders must move through phases of awareness, motivation, commitment, and ultimately performance. Trust, ownership, and a shared sense of purpose are key enablers. Without them, efforts remain fragmented or symbolic.

Conclusions and recommendations

FUTURES4FOOD demonstrated the value of a structured, transdisciplinary approach to food system transformation. The DF3 framework proved effective in building shared understanding, identifying actionable pathways, and promoting collaboration. However, it also requires long-term investment, policy support, and skilled facilitation.

FUTURES4FOOD concludes with the following key recommendations:

1. Integrate co-creation frameworks like DF3 into formal policymaking, especially in domains dealing with complex challenges.
2. Invest in long-term facilitation and support structures to maintain stakeholder engagement and learning over time.
3. Clarify stakeholder roles and expectations from the start, and ensure that ownership is distributed rather than centralised.
4. Encourage short-term milestones and tangible actions to build momentum without losing sight of long-term goals.
5. Support cross-sectoral platforms that enable shared visioning, data sharing, and experimentation.

Overall, FUTURES4FOOD shows that inclusive, systems-based thinking is not only possible—it is essential to designing just and effective food futures.

Keywords: Sustainability transition, Food system, Co-creation, Stakeholder engagement, Systems thinking