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BRUFO2050

Possible pathways towards a more sustainable food system in Brussels

Research report Q5

Suggested citation:

De Schaepmeester, H., Riera, A., Amrom, C., Mathijs, E., & Baret, P. (2026). *Possible pathways towards a more sustainable food system in Brussels. BRUFO2050 Research Report Q5*. SFERE/KU Leuven & SYTRA/UCLouvain. Funded by Innoviris.Brussels. https://sytra.be/publication/brufo2050/

Visuals by Céline Chevalier.

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Glossary

Adaptability: The capacity of actors within a system to influence its resilience—essentially, in a socio-ecological context, to manage and adjust the system in response to change (Walker et al., 2004b)

Barrier: A specific factor within a system that hinders the adoption of innovative practices or strategies. When barriers outweigh the drivers of change, the existing production system becomes reinforced and self-perpetuating, creating a lock-in situation (Weituschat et al., 2022).

Exploratory scenarios: "Multiple plausible futures described in words, numbers and/or images" (van Notten et al., 2003). This systems science method embraces uncertainty and complexity instead of predicting a single future, recognising the inherent unpredictability of decision-making contexts (Borjeson et al., 2005; Riera et al., 2025; van der Sluijs, 2005).

Food loss: The uneaten portion of the edible part of raw materials and food products. These products are not necessarily discarded—they can be redirected to food donation, processing, or other recovery pathways. Examples include production surpluses or unsold products donated to food aid (D'Hoker, 2017).

Food system: "The entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products originating from agriculture, forestry or fisheries, together with the broader economic, societal and natural environments in which they are embedded" (FAO, 2014).

Food supply chain: A managed process combining knowledge and skills from diverse fields—including electronics, biology, economics, psychology and logistics—to ensure food reaches consumers efficiently and safely (Bourlakis & Weightman, 2003).

Food waste: The portion of food losses that is discarded or used for non-food purposes, including secondary flows of food raw materials. Products become food waste for reasons such as expiry, poor storage, or leftovers (D'Hoker, 2017).

Lever: A factor or mechanism that can be strategically activated to influence a system, overcome an existing lock-in, and enable a transition toward a more desirable state (Courtois et al., 2024).

Lock-in: A situation in which policies, technologies, cognitive frames, infrastructures and social systems co-evolve until they become stable and self-reinforcing (Courtois et al., 2024). Lock-ins arise when feedback loops between these factors constrain actors and systems to a particular pathway, limiting transitions to superior alternatives (adapted from Truong et al., 2022).

Multi-stakeholder scenarios: Exploratory scenarios that incorporate multiple legitimate perspectives, allowing diverse actors to jointly address complex challenges such as food security and sustainability (Reilly & Willenbockel, 2010).

Resilience: The capacity of a system to absorb disturbance, reorganize, and continue functioning while retaining its essential structure, identity and feedbacks (Walker et al., 2004b).

Resilience of the food system: The ability of a food system to absorb shocks, reorganise, and adapt while maintaining its essential functions. The concept expands on sustainability by explicitly integrating risks of rupture, shocks, and dependencies between the food system and other systems.

Transition: A process rooted in socio-technical innovation theory, describing how niche-level activities scale up into broader socio-technical regimes, leading to long-term systemic change (Geels & Schot, 2007; Kemp et al., 2007; Rotmans, 2005). Transitions involve co-evolution across societal dimensions. The multi-level perspective distinguishes niches, socio-technical regimes and landscapes. Shifts in landscape or regime conditions can allow niche innovations to flourish and form new regimes.

Transformation: A fundamental change in the structure, functions and relationships within a social-ecological system (Vervoort et al., 2016). Transformations involve emergent patterns across social, institutional, cultural, technological, ecological and political dimensions. They are inherently political, often involving contested goals and redistributions of power or resources (Patterson & Paterson, 2024).

Transformability: "The capacity to create a fundamentally new system when ecological, economic or social conditions make the existing system untenable" (Walker et al., 2004a; Vervoort et al., 2016).

Sustainable development: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987, p. 37).

Sustainable consumption: "The use of goods and services that meet basic needs and improve quality of life, while minimising the use of natural resources, toxic materials and emissions over the life cycle, so as not to compromise future generations' needs" (Ofstad et al., 1994).

Sustainable food system: A food system that delivers food security and nutrition for all without compromising the economic, social and environmental foundations needed for future generations (FAO, 2014). This implies:

- economic sustainability – profitability throughout the system;
- social sustainability – broad societal benefits and equity;
- environmental sustainability – neutral or positive impacts on natural ecosystems.

1 Introduction

BRUFO2050 is a forward-looking research project that asks how the Brussels-Capital Region can move towards a more sustainable and resilient food supply by 2050.

The project aims to identify strategic actions towards a more sustainable and resilient food supply system by analysing the current system, identifying barriers and lock-ins, and exploring possible future scenarios (Figure 1). Building on the findings of the previous research questions, the present report focuses on the actions that can contribute to overcoming these barriers and progressing towards a more sustainable food supply system.

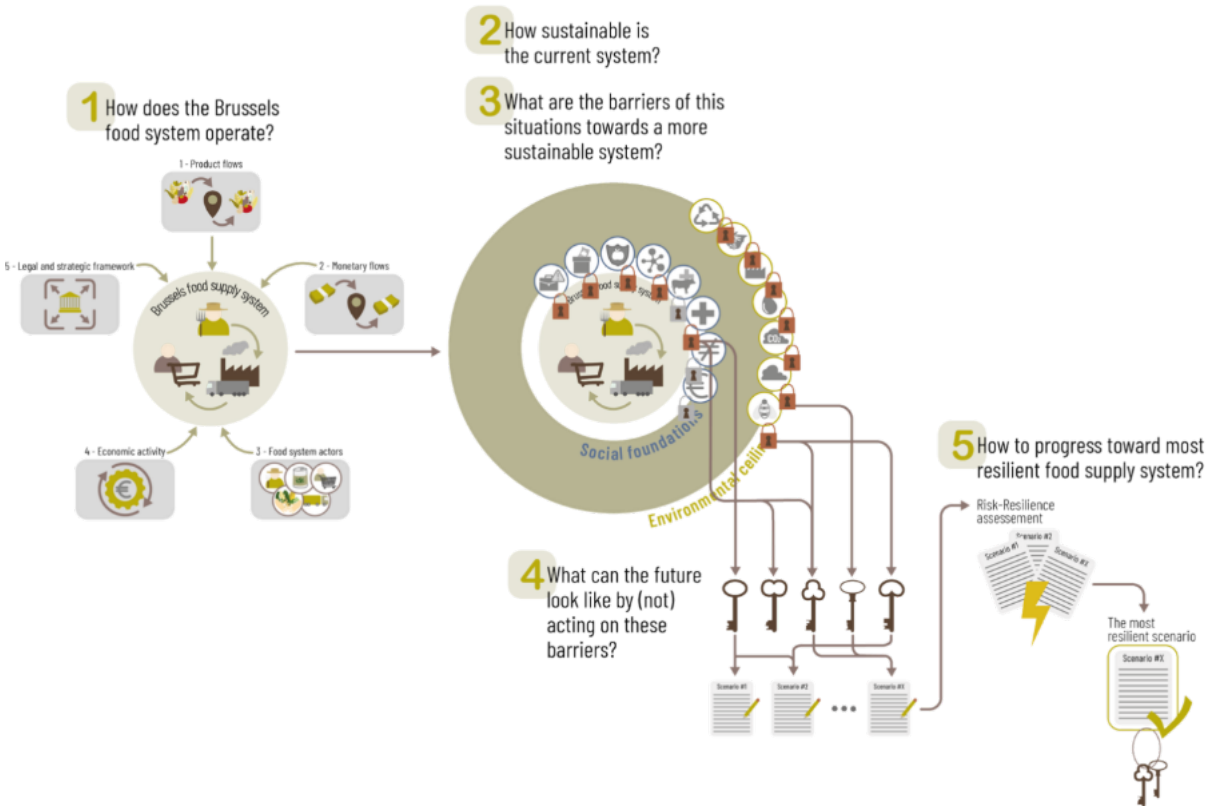


Figure 1: *Framework of the BRUFO2050 project.*

Research question 3 identified three interconnected clusters of barriers that currently create a lock-in in the Brussels food system: (A) the demand for sustainable food is too limited, (B) the costs of doing sustainability are too high, and (C) the offer of sustainable products is insufficient. Rather than operating as separate challenges, these clusters interact with and reinforce one another. Limited demand constrains market opportunities for sustainable businesses, high operational costs limit investment in local capacity, and insufficient supply contributes to limited accessibility and affordability. The findings of Q3 therefore provide the starting point for identifying where and how actions can contribute to breaking these interdependencies.

Research question 4 subsequently explored how the food system could evolve under different possible futures. Four exploratory scenarios were developed and quantitatively assessed, providing alternative futures of the Brussels food system towards 2050. These scenarios are not intended as predictions, but as plausible futures against which different actions can be explored.

Research question 5 builds on both exercises (Figure 2) by asking how the identified barriers can be addressed through concrete actions, and to what extent these actions remain relevant across different future contexts. In this sense, the scenarios developed in Q4 provide the conditions against which proposed actions can be tested. This approach makes it possible to distinguish between actions that are highly context-dependent and those that remain relevant across multiple futures.

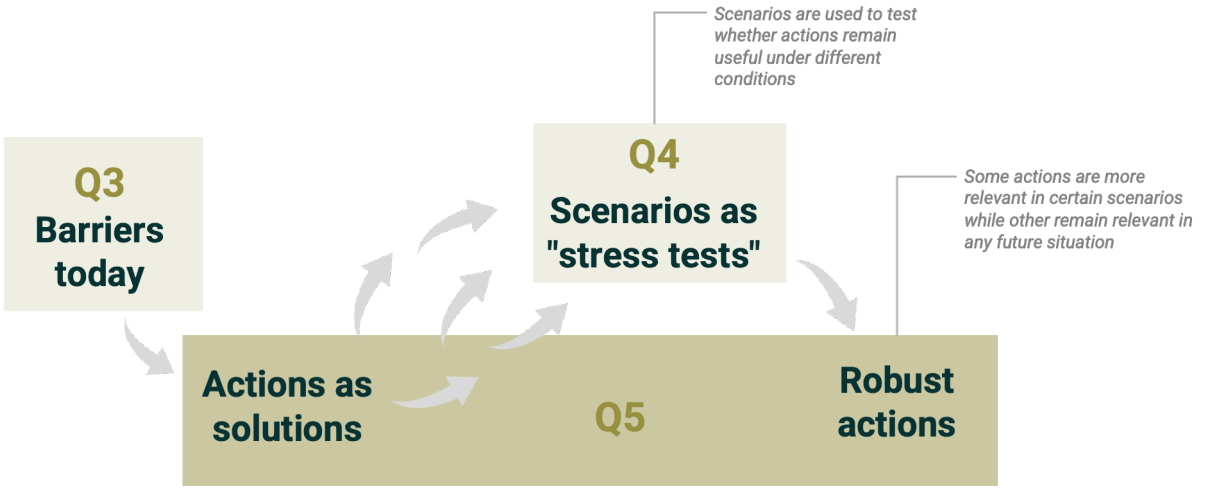


Figure 2 : *Methodological flow of research question 5 (actions), building on barriers (research question 3) and scenarios (research question 4).*

2 Methodology

2.1 Transition thinking and participatory foresight approach

As highlighted in previous reports, the methodological framing of BRUFO2050 is rooted in transition thinking. Food-system transitions involve co-evolution across multiple dimensions of a system, including technological, economic, institutional, cultural and political dimensions (El Bilali, 2019; Geels, 2018). Barriers to change can emerge within any of these dimensions. When such barriers reinforce one another, they can create a systemic lock-in or a situation in which the existing food system becomes resistant to change, making more sustainable alternatives difficult or even impossible to develop (Courtois et al., 2024; Oliver et al., 2018a).

Within this perspective of transition thinking, the study adopts a broader participatory foresight approach. Foresight is a futures-thinking approach that is particularly valuable in sociotechnical systems characterised by high levels of uncertainty, complex interactions, and future developments that cannot be reduced to a single expected trajectory (Könnölä et al., 2011; Riera et al., 2025). The food system of the Brussels-Capital Region represents therefore a relevant case, as it encompasses complex interactions between a wide diversity of consumption practices, food actors and potential development pathways (Amrom et al., 2026).

In contrast to forecasting, which generally seeks to estimate likely future developments from observed trends and assumptions, foresight opens the decision space to multiple plausible futures (Voros, 2003). Exploratory scenarios are therefore understood as non-normative (i.e. not pre-identified) plausible descriptions of alternative futures rather than predictions of what will occur (Borjeson et al., 2005; Riera et al., 2025). Consequently, the four scenarios developed in Q4 were not used to estimate which future is most likely. Instead, they served as testing environments in which the robustness and relevance of possible actions could be explored under different future conditions. By examining how actions perform across a range of plausible futures, it becomes possible to identify strategies that remain relevant under different circumstances (Wiebe et al., 2018) and are more likely to support long-term transitions.

Within this combined framework of transition thinking and participatory foresight, Q5 was designed as an action-oriented phase of the research process. Overall, the methodological flow of BRUFO2050 can be considered to follow the successive and iterative steps of transition cycles, as proposed by transition governance research, and which can be summarized as follows: assess the current situation – envision via possible futures – implement transition pathways (Dendoncker et al., 2018; Duru et al., 2015; Gaupp et al., 2021; Loorbach, 2010; Riera, 2026).

2.2 From barriers to cross-scenario action directions

A central characteristic of research question 5 is its participatory approach**.** While the barriers identified in Q3 were derived from interviews with actors across the Brussels food system, and the scenarios in Q4 were developed through an expert-based scenario exercise, Q5 brings these two elements together through direct collaboration with food system actors during two dedicated workshops. The objective is therefore not only to identify possible actions based on the research findings, but to jointly develop and assess actions with actors who are directly involved in, and affected by, the transition of the Brussels food system.

The approach of both workshops is detailed below.

2.2.1 Workshop 1: Translating barriers into actions

The first participatory workshop was held in November 2025 and brought together twenty-two food actors from Brussels. Participants were selected to ensure maximum diversity in terms of consumption practices, food sectors, and perspectives on sustainability (see Appendix A for a full list of participating organisations). This diversity was intended to support four key logics of participation: grounding the research in lived practices, imagining alternatives, enabling action, and analysing systemic dynamics (De Schaepmeester, De Bauw, et al., 2026).

The workshop had two main objectives. First, it aimed to establish a shared understanding of the Brussels food system, the sustainability vision adopted by BRUFO2050, and the clusters of barriers identified through the interviews and described in Q3. Second, it aimed to develop a set of potential actions to address these barriers and contribute to a more sustainable future for the Brussels food system.

Following a plenary presentation and discussion, participants were invited to propose actions by adding sticky notes to posters illustrating the barriers within each cluster: (A) demand and social inclusion, (B) entrepreneurship and economic feasibility, and (C) logistics and supply chains. The proposed actions were then discussed and collectively refined. Initially, discussions were organised separately for each cluster, allowing participants to explore the specific barriers and potential actions associated with each part of the food system.

The workshop generated a broad range of potential actions rather than a final or prioritised strategy.

2.2.2 Consolidating and structuring actions for scenario testing

Following workshop 1, the proposed actions were consolidated and organised to prepare them for the second workshop. This involved bringing related actions together, clarifying their formulation and structuring them within a common framework comprising the three clusters, broader areas for action, and the proposed actions associated with each theme.

In parallel, the project team developed four exploratory scenarios towards 2050, as described in the dedicated Q4 report (Riera et al., 2026). The scenarios were constructed using a 2×2 matrix based on two critical external drivers: the evolution of farming practices and systems (intensive vs. extensive) and the evolution of the market structure (homogenous and globalized vs. diverse and localized). These drivers represent external factors over which actors in the Brussels food system have limited or no direct control, but which may nevertheless strongly influence the future development of the food system. The resulting four scenarios describe contrasting but plausible future contexts (Table 1).

Table 1: *Description of four exploratory scenarios investigated within BRUFO2050.*

Scenario	Short description
S1 Global efficiency	Brussels as a smart hub in an efficient, technology-intensive global food system.
S2 Sustainable islands	A mosaic of relatively distinct local and regional food circuits, where eco-efficient farming co-exists with alternative systems (e.g. organic).
S3 Coordinated sustainability	Brussels as a hub for fair and sustainable global trade, with stronger coordination and standards.
S4 Agroecological networks	Brussels at the centre of local food sovereignty, with small-scale and seasonal production.

2.2.3 Workshop 2: Testing actions against future scenarios

In March 2026, the second participatory workshop brought together twenty-three food actors (see Appendix A). As in workshop 1, participants were selected using a strategy aimed at ensuring diversity of perspectives and backgrounds.

The workshop aimed to explore how the actions developed in workshop 1 would hold up under different future conditions. Following a presentation of the project's progress and the results of workshop 1, participants were invited to assess and challenge the relevance of the consolidated actions within each of the four scenarios. Working with the same three clusters, participants used coloured stickers to indicate the actions they considered most relevant in each scenario. This exercise was followed by discussions on how their implementation might change under different future conditions. This process helped identify both actions whose relevance depended strongly on the context, and actions that recurred across different future scenarios.

2.2.4 Cross-cluster and cross-scenario synthesis

Following Workshop 2, the results were synthesised across the three clusters and four scenarios. The generic action matrix (Table 18) provides a detailed overview of how actions were discussed and interpreted within each scenario. It preserves scenario-specific insights while making it possible to compare the relevance and interpretation of actions across different futures. Moreover, it provides a basis for distinguishing actions that remained relevant across all four scenarios from those that recurred in several scenarios or whose relevance depended more strongly on the context.

Although the three clusters provided the organising framework for the workshops, the synthesis also considered connections between them. This made it possible to identify broader action directions that cut across different parts of the food system.

2.2.5 Feasibility, responsibilities and existing initiatives

Following the cross-scenario synthesis, a subsequent 'expert committee' discussion examined the implementation conditions associated with the main action. The expert committee consisted of policymakers working on food-related issues at the federal, Walloon and Brussels levels, including representatives from the FOD/SPF Economy, SPW Wallonia and Bruxelles Environnement, alongside researchers from KU Leuven and UCLouvain. The discussion considered feasibility, expected effectiveness, priority, existing initiatives, implementation barriers, relevant stakeholders, and governance responsibilities.

This discussion complemented the workshop findings by adding perspectives on the practical policy conditions required to implement the identified actions. These insights helped deepen the interpretation of the cross-scenario findings and identify factors that may support or constrain implementation.

3 Results

This chapter presents the results of the participatory workshops, as well as the intermediate steps and subsequent synthesis through which the findings were consolidated and analysed.

As the results evolved throughout this process, different terms are used to distinguish between the successive stages. Workshop 1 generated a set of *proposed actions* to address the barriers identified in Q3. In preparation for workshop 2, these proposals were consolidated, clarified and organised into a more structured set of actions, grouped under broader themes within each of the three clusters. During workshop 2, participants assessed and challenged the relevance of these actions under each of the four future scenarios. Following Workshop 2, the findings were again analysed and synthesised across clusters and scenarios. The original actions were therefore reformulated into broader *generic actions*, capturing the overall direction of change, while the more specific proposals and discussion points were used to define how these actions could be translated into concrete, *scenario-specific actions*.

The following sections present the results of these successive stages.

3.1 Workshop 1: Translating barriers into actions

3.1.1 Cluster A: Demand and social inclusion

This cluster addressed the social and demand-side conditions of a sustainable food transition. More specifically, cluster A highlights that insufficient demand for sustainable food is not simply a matter of individual choice or motivation. A combination of barriers related to knowledge, capabilities, infrastructure, institutions, norms and values, interactions, and market conditions makes sustainable food less accessible, affordable, and culturally relevant to different groups in Brussels.

The proposed actions therefore included both demand-oriented measures and structural accessibility measures. The potential actions that were identified to relieve barriers from this cluster are detailed in Table 2.

Table 2: *Potential actions to relieve barriers related to the insufficient demand for sustainable food (cluster A).*

A1. Clarify and communicate what sustainable food means • Develop a clearer, practical understanding of sustainability, taking into account production, transport, emissions and working conditions, while recognising that different perspectives exist. • Move away from overly technical sustainability labels and promote the broader concept of "good food": food that is good for people, the planet and communities. • Improve awareness of seasonality, including for fruit, vegetables and fish.
A2. Strengthen school food systems • Create a more consistent and equitable food environment across schools. • Provide healthy food and snacks for all children, for example soup and fruit. • Support on-site school kitchens, or partnerships with local/social restaurants where an on-site kitchen is not feasible. • Make regulations and administrative arrangements more flexible so existing kitchens and restaurant infrastructure can be used. • Integrate food education and cooking skills into the curriculum.

- Involve children actively in preparing and choosing food, rather than treating them only as consumers.
- Benchmark successful examples from other cities and countries and adapt proven practices to Brussels.
- Explore shared kitchen infrastructure for smaller schools.

A3. Improve access, affordability and equity

- Expand solidarity pricing and cooperative food shops.
- Provide public support, including funding and access to suitable spaces, for community food initiatives.
- Improve access to clear and inclusive information about healthy and sustainable food.
- Support preservation and food-skills practices such as pickling and fermentation.
- Pilot subsidised sustainable food markets in lower-income neighbourhoods.
- Strengthen the role of neighbourhood shops as access points for sustainable food.
- Encourage local authorities to benchmark successful initiatives elsewhere.
- Address the structural causes of food insecurity with the long-term aim of reducing the need for food aid.

A4. Engage professional cooks and support cultural adaptation

- Develop and support ambassadors/key actors who demonstrate how sustainable food can work in different cuisines.
- Encourage restaurants and cooks to adapt non-local cuisines using seasonal and locally available ingredients.
- Promote creative recipes that make sustainable food attractive and culturally relevant.
- Improve working conditions and incentives to address shortages of professional cooks.

A5. Reduce food waste and strengthen food skills

- Develop campaigns and workshops around cooking with leftovers and surplus food.
- Promote recipes and practical examples for revalorising food waste, such as leftover-based dishes.
- Strengthen people's capabilities, creativity, knowledge and confidence to actually transform surplus food into meals.
- Promote preservation techniques and other practical skills that extend the use of food.

A6. Strengthen policy and structural support

- Develop more permanent food markets in Brussels neighbourhoods.
- Explore tax incentives or subsidies for businesses using local and/or organic products.
- Ensure longer-term funding for Good Food initiatives and community projects.
- Improve coordination between public authorities, schools, restaurants, community initiatives and other food-system actors.

3.1.2 Cluster B: Entrepreneurs and economic feasibility

Cluster B focused on the conditions under which sustainable food businesses and value-chain actors can operate and scale. During the discussion, the participants did not identify a single economic model for sustainable food businesses. Instead, they highlighted the need to

consider the interaction between costs, market organisation, regulation, infrastructure, scale and demand. The question of 'sustainable scale' was explicitly left open. It was discussed that scaling can improve economic viability but can also create new pressures or undermine the characteristics that make an initiative socially or environmentally sustainable.

The potential actions identified to relieve barriers from this cluster are detailed in **Table 3**3.

Table 3: *Potential actions to relieve barriers related to the high scaling costs for sustainable food entrepreneurs (cluster B).*

B1. Strengthen marketing for sustainable products

- Create a dedicated fund to promote sustainable products in Brussels, potentially inspired by existing models such as VLAM in Flanders.
- Explore financing through processors and transformation sectors, supported by public authorities.
- Make better use of existing networks, such as local grocery stores, for marketing and supply instead of creating new structures.

B2. Address regulatory grey zones

- Update legislation to address regulatory grey zones affecting circular-economy practices, including fermentation and culturally specific food processes.
- Engage umbrella organisations and sector federations to identify and prioritise these regulatory issues.

B3. Reduce space and cost barriers

- Develop mechanisms to make urban spaces more accessible for food production and innovation.
- Explore stronger Brussels–Flanders–Wallonia cooperation to retain businesses and avoid relocation caused by space or cost pressures.

B4. Strengthen knowledge sharing and transparency

- Create a non-profit platform for voluntary exchange of sourcing information and sustainable practices.
- Improve transparency while taking intellectual-property concerns into account.
- Establish a regular stakeholder platform bringing together different food-system actors in Brussels to share good practices, build trust and improve mutual learning between small and large companies.

B5. Clarify and communicate sustainability

- Shift from negative or polarising framing towards more constructive communication.
- Develop a clear definition of sustainability.
- Address greenwashing by communicating concrete progress and actions rather than claiming that products or businesses are fully sustainable.
- Clarify the meaning of “local”, particularly in relation to the wider Belgian food system rather than only Brussels.

B6. Address the question of sustainable scale

- Define what an optimal sustainable scale means, balancing economic, social and environmental considerations.
- Ensure that scaling up does not undermine producers or compromise sustainability principles.

- Stimulate private businesses in ways that do not make profit maximisation the sole objective.

B7. Explore true-cost pricing

- Reform tax and VAT systems to better reflect environmental and social costs.
- Introduce incentives for sustainable practices rather than relying only on penalties.
- Explore mechanisms whereby higher costs for highly processed or environmentally damaging products can help finance sustainable alternatives.
- Develop transparent indicators that can guide adjustments to pricing.

B8. Address market dynamics and power

- Make power relations between actors more visible in order to address market imbalances.
- Encourage benchmarking and exchange of good practices between large- and small-scale companies.
- Learn from successful models in other regions and countries to improve Brussels' food policy and infrastructure.

B9. Explore circular-economy and waste incentives

- Consider whether making waste processing more expensive could create incentives for waste reduction and valorisation. The workshop only touched briefly on this, so I would present it as a potential lever rather than as a firmly agreed action.

B10. Ground policymaking in practical realities

- Design food policies that are more closely connected to the practical realities faced by businesses and other actors in the food system.

3.1.3 Cluster C: Logistics and supply chains

Cluster C focused on the supply-chain conditions needed to connect production and supply with Brussels demand. A recurring principle was to avoid assuming that new infrastructure is automatically required. The discussion repeatedly returned to the need to start from what already exists, including existing buildings, initiatives, partnerships and logistics operators. Coordination and shared use were therefore treated as important elements that are needed in complement to physical investment.

The potential actions identified to relieve barriers from this cluster are detailed in Table 4.

Table 4: *Potential actions to relieve barriers related to the insufficient supply of sustainable food (cluster C).*

C1. Strengthen digital coordination and information sharing

- Develop or connect digital systems that improve coordination between producers, logistics providers, buyers and other food-system actors.
- Improve visibility of supply and demand, including information on available products, quantities, timing and delivery requirements.
- Provide training and support so that digital tools are not only developed but effectively used by smaller and less digitally equipped actors.
- Use digital platforms to facilitate matching between supply and demand rather than treating digitalisation as an objective in itself.

C2. Develop mutualised logistics and shared infrastructure

- Encourage shared logistics arrangements between food-system actors to reduce fragmented transport and improve efficiency.
- Coordinate transport routes and deliveries across actors where possible.
- Improve access to shared facilities for storage, handling, cross-docking and distribution.
- Make the full cost of orders and logistics more visible, including transport, handling and last-mile costs.
- Explore shared infrastructure where individual actors cannot economically provide the required capacity themselves.

C3. Connect and strengthen existing hubs and infrastructure

- Map existing food-related logistics, storage, processing and distribution initiatives in and around Brussels.
- Strengthen connections between existing sites, rather than automatically creating new parallel infrastructures.
- Identify and address specific infrastructure gaps, such as cold storage, cross-docking, intermediate processing and last-mile facilities.
- Explore strategically located smaller hubs or micro-hubs where they can solve concrete logistical bottlenecks, for example at the edge of Brussels or close to existing transport networks.
- Ensure that hubs are connected to a network of actors and do not function as isolated infrastructures.

C4. Improve supply–demand matching and connect different scales

- Develop mechanisms that better match the volume, timing and characteristics of supply with actual demand.
- Create intermediary solutions between very small-scale producers and large industrial or retail systems.
- Adapt procurement, logistics and distribution models to different producer and buyer scales rather than assuming one optimal scale.
- Support actors that can bridge fragmented local supply with larger institutional or commercial demand.

C5. Strengthen Brussels–Flanders–Wallonia and interregional cooperation

- Improve coordination between actors and infrastructures across Brussels, Flanders and Wallonia.
- Strengthen food belts and regional networks connecting production, processing, storage, distribution and urban demand.
- Facilitate cooperation between actors that currently operate in separate or parallel networks.
- Explore ways of making existing regional infrastructure more accessible to smaller and alternative food networks.

C6. Use public procurement to create stable demand

- Use public procurement to create predictable demand for sustainable and local food.
- Develop procurement opportunities at different scales so that small producers, cooperatives and larger suppliers can participate.
- Coordinate procurement between institutions where appropriate to create sufficient volume and visibility.

- Extend the role of procurement beyond purchasing towards education, health and wider food-system objectives.
- Better align procurement requirements with the production capacity and organisational realities of sustainable suppliers.

C7. Strengthen regulatory dialogue and simplify administrative barriers

- Create stronger dialogue between food-system actors and public authorities around regulations affecting logistics, processing and distribution.
- Address regulatory barriers related to transport, licences, food safety requirements and administrative procedures.
- Explore where regulatory requirements can be simplified or made more proportionate to the scale and type of actor.
- Avoid regulatory systems that unintentionally exclude smaller producers, shops, bakeries or alternative food networks.
- Improve coordination between different levels of government where responsibilities are fragmented.

C8. Professionalise logistics and supply-chain capacities

- Strengthen knowledge and skills in logistics, supply-chain management, marketing and economic planning among smaller food-system actors.
- Provide practical support to organisations that want to participate in sustainable logistics networks but lack specialised expertise.
- Develop intermediary organisations or actors that can provide logistical and organisational support across several smaller businesses.
- Combine infrastructure investment with the organisational capacity needed to operate and coordinate it effectively.

C9. Use Brussels' cultural diversity as a source of supply and demand diversification

- Recognise culturally diverse food businesses, neighbourhood shops and community networks as part of the food-system infrastructure.
- Connect initiatives emerging from different communities with wider food-system networks.
- Support exchange between alternative and conventional supply chains rather than allowing initiatives to remain isolated.
- Use cultural diversity to diversify both demand and supply, including through new products, cuisines and food businesses.
- Map existing community-based initiatives and identify opportunities to connect them with existing infrastructure and partnerships.

C10. Strengthen food-system resilience and preparedness

- Develop contingency planning for disruptions in external supply chains.
- Diversify suppliers, regions and countries of origin where dependence creates vulnerability.
- Consider strategic reserves or other forms of preparedness for essential food products where appropriate.
- Monitor risks linked to climate change, energy prices, geopolitical developments, production concentration and transport disruptions.
- Strengthen resilience through diversification and preparedness rather than relying exclusively on increasing local production.

3.2 Workshop 2: Testing actions against future scenarios

Before workshop 2, the possible solutions from workshop 1 were consolidated into a set of 9 actions per cluster (Table 5). In workshop 2, participants indicated which of these actions they considered relevant under each scenario, and each scenario was then discussed in detail per cluster. The results are presented below per scenario: for each scenario, the implications for the Brussels food system as a whole are discussed first, followed by the three barrier clusters. The resulting scenario-specific actions are brought together in the generic action matrix in section 3.3 (Table 18).

Table 5: *Overview of clusters and proposed actions, as presented to actors during workshop 2.*

Cluster	Area for action	Proposed actions
Consumption and social foundation	Inclusive food environments and food education	Consistent school food environments
		Curriculum & skills
		Awareness campaigns
	Cultural adaptation and positive (re)framing of sustainability	Clear definitions
		Cultural diversity
	Accessibility and financial solidarity	Solidarity models
		Food as medicine
		Social inclusion
		Incentives & public procurement
Entrepreneurs and economic feasibility	True cost pricing and market justice	Polluter pays and address imbalances
		Price steering
		Price transparency
	Space and flexibility for innovation	Affordable production space
		Optimal scale and non-profit models
		Regulatory "grey" zones
	Collective marketing and knowledge sharing	Brussels marketing strategy
		Stakeholders platform
		Ground policy in reality
Logistics and supply chains	Shared infrastructure & hub creation	Mutualized infrastructure and hubs
		Shared logistics and compliance
		Existing sites and unconventional partnerships
		Specialized processing
	Digitalisation and data-driven planning	Integrated digital platforms
		Professional training
	Institutional support and training	Public procurement
		Regulatory simplification
		Contingency planning

3.2.1 Scenario 1: Global efficiency



***Figure 3**: Illustration of scenario 1 (global efficiency): Brussels as a smart hub in efficient, technology-intensive global supply chains.*

In the global efficiency scenario, Brussels is a hub connected to long, highly automated global supply chains dominated by large companies. Food is produced and processed elsewhere, prices reflect global competition, and environmental impacts are addressed afterwards rather than prevented. While this system offers efficient supply and product variety, it leaves Brussels dependent on external suppliers and with limited control over availability, prices and losses. The challenge is to retain the benefits of global connectivity while safeguarding health, resilience and local value (Figure 3).

Cluster A: Demand and social inclusion

The actions of cluster A that participants considered relevant in scenario 1 are shown in Table 6. Each dot represents one sticker placed by a participant.

***Table 6:** Cluster A actions considered relevant in scenario 1.*

Area for action	Proposed actions	S1 Global efficiency
Accessibility and financial solidarity	Incentives & public procurement	● ● ● ● ● ● ●
	Food as medicine	● ● ● ● ● ●
	Solidarity models	● ●
	Social inclusion	
Inclusive food environments and food education	Consistent school food environments	● ● ● ●
	Awareness campaigns	● ● ●
	Curriculum & skills	●
Cultural adaptation and positive (re)framing of sustainability	Clear definitions	● ●
	Cultural diversity	● ●

Participants expected sustainability to focus mainly on emission reduction, with less attention to healthy diets. They therefore highlighted individual health as an entry point for keeping healthy eating on the agenda, alongside education and awareness-raising to link healthy and sustainable choices and maintain access to nutritious, balanced food. Schools were seen as one of the few settings where Brussels can influence children's food environment, through school meals, food education and restrictions on unhealthy food advertising and availability around schools.

Reliance on international markets also raised concerns about price volatility and food affordability for vulnerable households, particularly given Brussels' limited influence over market conditions. Participants therefore discussed public support, including food-security measures and financial assistance. They also warned that market concentration and rapid product innovation could narrow product availability and threaten the cultural diversity of Brussels' food landscape.

Cluster B: Entrepreneurs and economic feasibility

The actions of cluster B that participants considered relevant in scenario 1 are shown in Table 7. For cluster B, participants collectively decided where to put the dot sticker.

Table 7: *Cluster B actions considered relevant in scenario 1.*

Area for action	Proposed actions	S1 Global efficiency
True cost pricing and market justice	Polluter pays and address imbalances	●
	Price steering	●
	Price transparency	●
Space and flexibility for innovation	Affordable production space	●
	Optimal scale and non-profit models	●
	Regulatory “gray zones”	
Collective marketing and knowledge sharing	Brussels marketing strategy	
	Stakeholder platforms	
	Ground policy in reality	

As large-scale processing moves out of the region, Brussels' food businesses increasingly focus on final preparation and sales. With standardised ingredients sourced globally, restaurants and other food-service businesses are expected to grow by differentiating themselves through creativity, quality and customer experience.

Participants identified true-cost pricing as a key action, arguing that carbon markets and true-price accounting should reflect the environmental impacts of global transport and intensive farming. They questioned what claims such as “emission-free” mean in a system based on intensive monoculture and warned that carbon offsetting could enable greenwashing. Clear definitions and robust standards were therefore considered essential to ensure credible sustainability claims.

Cluster C: Logistics and supply chains

The actions of cluster C that participants considered relevant in scenario 1 are shown in Table 8. Each dot represents one sticker placed by a participant.

***Table 8**: Cluster C actions considered relevant in scenario 1.*

Area for action	Proposed actions	S1 Global efficiency
Institutional support and resilience	Contingency planning	● ● ● ● ● ● ● ●
	Regulatory simplification	● ● ●
	Public procurement	● ●
Shared infrastructure and hub creation	Existing sites and unconventional partnerships	● ● ● ●
	Shared logistics and compliance	●
	Mutualized infrastructure and hubs	
	Specialized processing	
Digitalisation and data-driven planning	Professional training	● ● ●
	Integrated digital platforms	● ●

Dependence on external supply chains was identified as the main vulnerability. Rather than prioritising local production, participants emphasised diversification and preparedness, proposing a structured contingency plan to identify critical dependencies and public strategic reserves of essential food products, purchased when prices are low.

They questioned whether supplying countries could be relied upon during major crises and stressed the need to identify priority products for emergency planning. Participants also noted vulnerabilities in alternative production systems: vertical farming depends on affordable energy, while large-scale monocultures are susceptible to pests and diseases. More plant-based diets were discussed as a way to reduce external dependencies, particularly on imported inputs such as soy for animal feed.

Regulatory simplification and professional training were also identified as relevant actions, although they received less attention and were explored in less detail.

3.2.2 Scenario 2: Sustainable islands

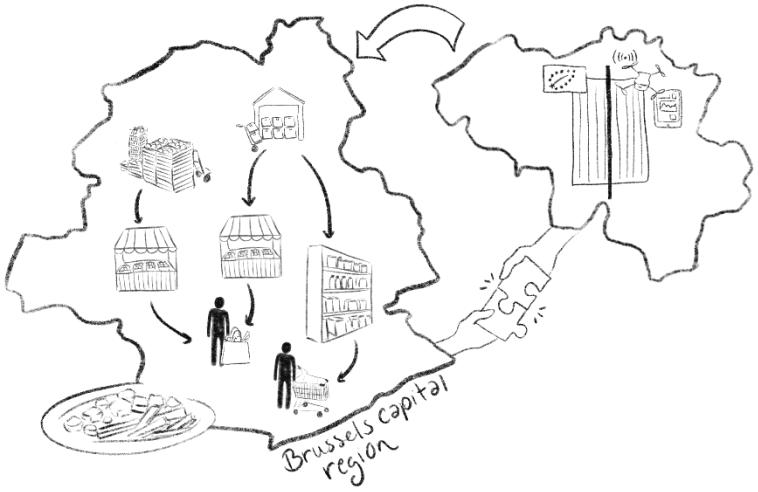


Figure 4: *Illustration of Scenario 2 (Sustainable islands): parallel food circuits supplying different groups of consumers in Brussels, with regional production in neighbouring regions.*

The sustainable islands scenario features a locally and regionally organised food system comprising distinct food circuits serving different consumer groups. Brussels is supplied mainly through regional networks, particularly with Flanders and Wallonia, with greater emphasis on local and regional organic production and precision farming.

For the Brussels-Capital Region, this could strengthen links with nearby production areas and create opportunities for local food businesses. However, fragmented food circuits could lead to unequal access to sustainable food and complicate coordination, logistics and market access. The central challenge is to keep these circuits connected, fair and accessible to all (Figure 4).

Cluster A: Demand and social inclusion

The actions of cluster A that participants considered relevant are shown in Table 9. Each dot represents one sticker placed by a participant.

Table 9: *Cluster A actions considered relevant in scenario 2.*

Area for action	**Proposed actions**	**S2 Sustainable islands**
Cultural adaptation and positive (re)framing of sustainability	Clear definitions	● ● ● ● ●
	Cultural diversity	● ● ●
Accessibility and financial solidarity	Social inclusion	● ● ● ● ●
	Incentives & public procurement	● ●
	Food as medicine	●
	Solidarity models	●
Inclusive food environments and food education	Consistent school food environments	● ● ● ●
	Awareness campaigns	● ● ●
	Curriculum & skills	

Participants stressed that regional supply does not automatically guarantee access for everyone. Affordability and inclusion therefore remained central, with discussions focusing

on incentives and public procurement to support local and organic products and on designing these measures to make food genuinely more affordable.

Clear, shared definitions of good food were considered important for dialogue and cooperation between actors and food networks. Participants also highlighted the need to regulate unhealthy food availability and promotion around schools. Although food education received no votes, its role in helping people work with hubs and more localised supply chains was discussed.

Cultural diversity was another concern. Regional specialisation could reduce access to products from other parts of the world and limit foods reflecting Brussels' diverse communities. Participants therefore called for targeted inclusion measures, including better mapping of and collaboration with existing diaspora- and community-led food initiatives.

Cluster B: Entrepreneurs and economic feasibility

The actions of cluster B that participants considered relevant in scenario 2 are shown in Table 10. For cluster B, participants collectively decided where to put the dot sticker.

Table 10: *Cluster B actions that participants considered relevant in scenario 2.*

Area for action	Proposed actions	S2 Sustainable islands
Space and flexibility for innovation	Affordable production space	●
	Optimal scale and non-profit models	●
	Regulatory “gray zones”	●
Collective marketing and knowledge sharing	Brussels marketing strategy	●
	Stakeholder platforms	●
	Ground policy in reality	
True cost pricing and market justice	Polluter pays and address imbalances	●
	Price steering	
	Price transparency	

This scenario was seen as offering the greatest opportunities for diverse entrepreneurs and business models, with increased demand for food processing and urban space for production, processing and experimentation. Participants stressed that close cooperation between Brussels, Flanders and Wallonia would be essential to achieve sufficient scale and prevent businesses from relocating to neighbouring regions, while acknowledging the practical difficulties of such cooperation.

Sector federations and public authorities were expected to play a key coordinating role, supporting regional specialisation and ensuring that different food supply chains coexist and complement one another.

Participants also emphasised the importance of market justice. Greater price transparency, the polluter-pays principle and VAT rates reflecting environmental and social impacts were considered necessary to prevent businesses adopting sustainable practices from being disadvantaged against conventional competitors.

Cluster C: Logistics and supply chains

The actions of cluster C that participants considered relevant in scenario 2 are shown in Table 11. Each dot represents one sticker placed by a participant.

Table 11: *Cluster C actions considered relevant in scenario 2.*

Area for action	Proposed actions	S2 Sustainable islands
Shared infrastructure and hub creation	Specialized processing	● ● ● ● ● ●
	Shared logistics and compliance	● ● ● ● ● ●
	Existing sites and unconventional partnerships	● ● ● ●
	Mutualized infrastructure and hubs	●
Institutional support and resilience	Public procurement	● ● ● ● ● ●
	Regulatory simplification	
	Contingency planning	
Digitalisation and data-driven planning	Integrated digital platforms	●
	Professional training	

Logistics emerged as a major challenge. The current system is designed mainly for efficient supermarket supply chains, while solutions such as cross-docking are often too costly for lower-value food products. Participants therefore called for urban logistics infrastructure, including overnight cold storage and smaller distribution hubs on Brussels' outskirts, helping farmers facing low-emission zone restrictions and traffic congestion.

Rather than creating entirely new systems, they proposed better use of existing assets, such as the Anderlecht slaughterhouse and potentially the metro network, although the latter would require overcoming practical obstacles. Cooperative last-mile delivery operators already have the necessary tools and capacity but often lack paying customers, suggesting that demand, rather than logistics capacity alone, is part of the problem.

Participants consequently stressed the need to map existing initiatives and connect pioneering projects with other communities to prevent them from remaining isolated. They also identified a shortage of intermediate-scale processing facilities. However, infrastructure alone was not considered sufficient: logistics hubs must be embedded in trusted networks, as the value of local and sustainable food can be undermined if products are handled carelessly during final distribution.

3.2.3 Scenario 3: Coordinated sustainability

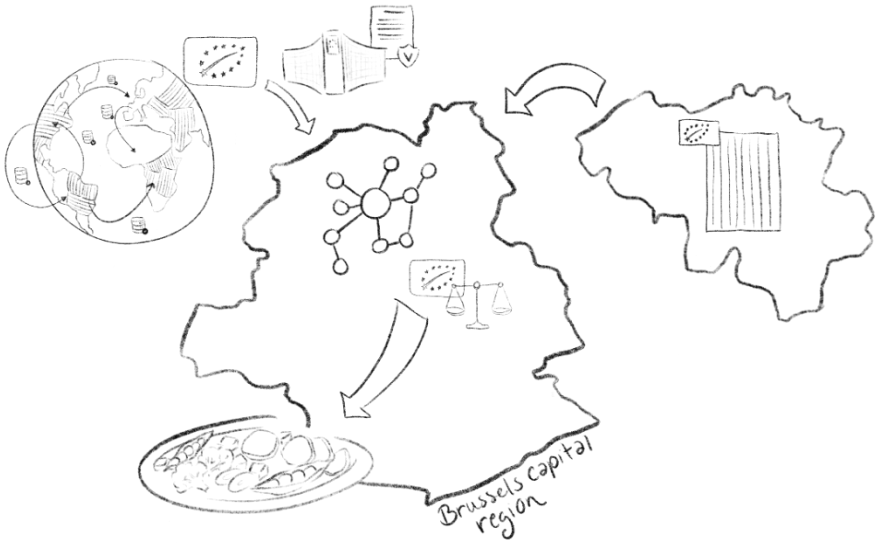


Figure 5: *Illustration of Scenario 3 (Coordinated sustainability): Brussels as a hub for fair and sustainable global trade, with stronger coordination and certified products.*

The coordinated sustainability scenario combines sustainable production with strong European-level coordination. Brussels operates within a food system shaped by common sustainability standards, certification, traceability and coordinated policy objectives. Although products continue to come from diverse international sources, production increasingly follows organic, agroecological and other regulated sustainability standards.

At the seat of several European institutions, Brussels is well positioned to engage with and potentially influence EU policy. However, increasingly demanding administrative requirements may burden its many small food businesses. The challenge is to translate common standards into workable arrangements for all actors (Figure 5).

Cluster A: Demand and social inclusion

The actions of cluster A that participants considered relevant in scenario 3 are shown in Table 12. Each dot represents one sticker placed by a participant.

Table 12: *Cluster A actions considered relevant in scenario 3.*

Area for action	Proposed actions	S3 Coordinated sustainability
Accessibility and financial solidarity	Solidarity models	● ● ● ● ● ● ●
	Social inclusion	● ● ● ● ●
	Incentives & public procurement	●
	Food as medicine	
Cultural adaptation and positive (re)framing of sustainability	Cultural diversity	● ● ● ● ●
	Clear definitions	● ● ●
Inclusive food environments and food education	Consistent school food environments	● ● ● ●
	Awareness campaigns	●
	Curriculum & skills	

Participants noted that embedding sustainability in standards and certification can create barriers for small producers and entrepreneurs without necessarily ensuring affordability or inclusion. Solidarity models and social inclusion measures were therefore considered crucial to prevent vulnerable groups from being excluded as costs rise. Some participants assumed that a food social security system would form part of this regulated system.

Awareness campaigns were seen as a democratic watchdog, keeping debate open about what constitutes good food and allowing cultural diversity to remain negotiable. Schools were also considered a central pillar for local influence.

Cluster B: Entrepreneurs and economic feasibility

The actions of cluster B that participants considered relevant in scenario 3 are shown in Table 13. For cluster B, participants collectively decided where to put the dot.

Table 13: *Cluster B actions considered relevant in scenario 3.*

Area for action	**Proposed actions**	**S3 Coordinated sustainability**
Collective marketing and knowledge sharing	Stakeholder platforms	●
	Ground policy in reality	●
	Brussels marketing strategy	
True cost pricing and market justice	Price transparency	●
	Polluter pays and address imbalances	
	Price steering	
Space and flexibility for innovation	Affordable production space	
	Optimal scale and non-profit models	
	Regulatory “gray zones”	

Participants warned that strict administrative requirements and EU-wide tenders could favour large companies controlling several stages of the supply chain. Smaller businesses might need to form consortia to meet requirements and access EU funding, while some could disappear under the administrative burden. Collective marketing, knowledge sharing and cooperation were therefore highlighted as ways to strengthen their position.

Because many quality attributes are not visible to consumers, traceability and trust systems were considered necessary to prevent fraud and adulteration. Prices were expected to be shaped mainly by raw-material costs rather than consumer prices. Brussels-based businesses, particularly restaurants, could nevertheless differentiate themselves through culinary creativity and marketing.

Cluster C: Logistics and supply chains

The actions of cluster C that participants considered relevant in scenario 3 are shown in Table 14. Each dot represents one sticker placed by a participant.

Table 14: *Cluster C actions considered relevant in scenario 3.*

Area for action	Proposed actions	S3 Coordinated sustainability
Institutional support and resilience	Public procurement	● ● ● ● ● ● ●
	Regulatory simplification	● ● ●
	Contingency planning	●
Shared infrastructure and hub creation	Specialized processing	● ● ● ● ●
	Shared logistics and compliance	● ●
	Existing sites and unconventional partnerships	● ●
	Mutualized infrastructure and hubs	
Digitalisation and data-driven planning	Integrated digital platforms	● ●
	Professional training	● ●

Public procurement was discussed as a way to stimulate competition and demand for sustainable products, particularly given the strong influence of subsidies on prices. Participants stressed that standards and investment requirements often designed for large factories, alongside rules ranging from fire safety to food inspections, can be difficult for smaller businesses to meet. Regulatory simplification and training were therefore considered necessary to help artisanal producers, bakeries and local shops comply. Practical, bottom-up training and skills development were also seen as important to balance a system largely shaped by top-down rules.

Digital platforms for monitoring demand were considered useful tools to help local actors respond to market needs, although not essential solutions.

Finally, participants questioned whether non-EU products would be allowed onto the market, particularly when comparable products are produced within the EU, and whether consumers would accept the resulting prices.

3.2.4 Scenario 4: Agroecological networks



Figure 6: *Illustration of Scenario 4 (Agroecological networks): Brussels at the centre of local, small-scaled and seasonal food networks.*

The agroecological networks scenario represents the most locally rooted future, with predominantly small-scale, diversified, seasonal and agroecological production. Brussels sits at the centre of interconnected local and regional food systems, where food sovereignty, proximity, cooperation and citizen participation gain importance, while conventional industrial processing and large-scale distribution decline.

The scenario builds on Brussels-Capital Region's existing strengths in artisanal production, fermentation, preservation and cooperative organisation. However, fragmented supply and higher costs create challenges. The central question is how to reconcile local food sovereignty with affordability, cultural diversity and resilience (Figure 6).

Cluster A: Demand and social inclusion

The actions of cluster A participants considered relevant in scenario 4 are shown in Table 15. Each dot represents one sticker placed by a participant.

Table 15: *Cluster A actions considered relevant in scenario 4.*

Area for action	**Proposed actions**	**S4 Agroecological networks**
Inclusive food environments and food education	Curriculum & skills	● ● ● ● ● ● ●
	Consistent school food environments	● ●
	Awareness campaigns	●
Accessibility and financial solidarity	Social inclusion	● ● ● ● ● ● ●
	Solidarity models	● ● ● ●
	Food as medicine	
	Incentives & public procurement	
Cultural adaptation and positive (re)framing of sustainability	Cultural diversity	● ● ● ● ●
	Clear definitions	●

Affordability was a key concern, as agroecological food may be more expensive. Participants proposed a Social Security for Food to provide citizens with a food budget while supporting agroecological production. Linking this support to direct contact with producers, for example through farm visits, could make producer-consumer relationships more tangible.

Food education and practical skills were considered particularly important, as citizens would need to adapt to seasonal availability and learn to cook, preserve food and reduce waste.

Cultural diversity also remained central. Local production may not provide all the ingredients associated with Brussels' diverse culinary traditions. Participants therefore highlighted the need for continuous adaptation through new recipes, cooking practices and culinary innovation combining local ingredients with diverse food cultures.

Cluster B: Entrepreneurs and economic feasibility

The actions of cluster B considered relevant in scenario 4 are shown in Table 16. For cluster B, participants collectively decided where to put the dot.

Table 16: *Cluster B actions considered relevant in scenario 4.*

Area for action	Proposed actions	S4 Agroecological networks
Space and flexibility for innovation	Affordable production space	●
	Optimal scale and non-profit models	●
	Regulatory “gray zones”	●
Collective marketing and knowledge sharing	Stakeholder platforms	●
	Brussels marketing strategy	
	Ground policy in reality	
True cost pricing and market justice	Polluter pays and address imbalances	
	Price steering	
	Price transparency	

Collective distribution and processing were identified as key levers. Fragmented production requires cooperation, while storage, preservation and processing facilities are essential to manage seasonal supply. Participants disagreed on who should organise this consolidation: some favoured cooperatives, while others expected large industrial groups, raising concerns that small-scale distribution and processing could disappear.

Views on prices differed. Some expected affordability issues to disappear once production became fully agroecological, while others argued that prices would remain a concern. Participants agreed on the need for clear definitions of terms such as “local” and “agroecological” to prevent misleading claims and unfair competition. They also called for stronger processing rules to avoid simply shifting problems from farming to processing.

Despite these challenges, participants identified opportunities for local value creation, particularly through artisanal processing, fermentation, preservation and the creative transformation of seasonal products. Training in seasonal cooking and preservation techniques was considered important for chefs and processors, alongside cooking lessons for citizens.

Cluster C: Logistics and supply chains

The actions of cluster C considered relevant for scenario 4 are shown in Table 17. Each dot represents one sticker placed by a participant.

Table 17: *Cluster C actions considered relevant for scenario 4.*

Area for action	Proposed actions	S4 Agroecological networks
Institutional support and resilience	Regulatory simplification	● ● ● ● ●
	Public procurement	● ● ● ●
	Contingency planning	● ● ●
Shared infrastructure and hub creation	Existing sites and unconventional partnerships	● ● ●
	Specialized processing	● ●
	Shared logistics and compliance	●
	Mutualized infrastructure and hubs	●
Digitalisation and data-driven planning	Professional training	● ● ●
	Integrated digital platforms	● ●

Public procurement was identified as a major lever. Schools, hospitals, public administrations and other public institutions can create stable demand and reliable market opportunities for small producers. Varying procurement volumes and contract arrangements could also enable a wider range of producers and organisations to participate.

Participants highlighted the gap between very small-scale production and large-scale industrial processing. Intermediate-scale facilities for storage, processing, preservation and distribution are needed to connect fragmented, seasonal production with the continuous demands of urban markets and ensure year-round supply. As reliance on local production also increases exposure to local shocks, storage capacity and contingency planning across different producer scales were considered important.

Finally, participants noted that agroecological food is often perceived as expensive and exclusive. Affordability measures therefore remain essential, with differentiated VAT rates proposed as a more systemic alternative to subsidies for individual organisations, complementing a Social Security for Food.

3.3 Cross-scenario synthesis: which actions hold up in every future?

Following workshop 2, the findings were analysed and synthesised across clusters and scenarios. Insights from the discussions were used to clarify and further develop the proposed actions. The original actions were reformulated into broader *generic actions*, capturing the overall direction of change, while the more specific proposals and discussion points were used to define how these actions could be translated into concrete, *scenario-specific actions*. This process resulted in the generic action matrix (Table 18), which brings together the actions identified during the workshops and shows how their relevance and implementation may vary across the scenarios.

Comparing the actions across the four scenarios made it possible to distinguish actions that participants considered relevant in all four futures (*robust actions*), those relevant in three scenarios (*nearly robust actions*), and those whose relevance was more context-dependent. Three actions were considered relevant across all four scenarios: frame sustainable and healthy eating in public campaigns, use public procurement to stimulate stable demand, and increase price transparency and fairness. Six further actions were considered relevant in three of the four scenarios: strengthen food education in schools and among citizens, strengthen food education for professionals, acknowledge cultural diversity in food systems, avoid marginalisation in food systems, adapt taxes and financial incentives in favour of sustainable and healthy food, and coordinate and manage value chains.

However, the recurrence of an action across scenarios does not necessarily mean that it would be implemented in the same way in each future. Rather, the synthesis shows that a shared strategic objective can require different approaches depending on the characteristics and challenges of the food system. Food education illustrates this flexibility. In the *global efficiency* scenario, it may focus primarily on individual health and helping consumers navigate a food environment dominated by global markets and standardised products. In more locally organised food systems, it may place greater emphasis on seasonal eating, adapting recipes to locally available products, and developing cooking and food preservation skills. The underlying objective of strengthening food education remains relevant, but its practical interpretation changes with the context.

A similar distinction emerges for price transparency and fairness. In the *global efficiency* scenario, the emphasis is on ensuring that food prices better reflect environmental externalities associated with production and global supply chains. In the *agroecological networks* scenario, the focus shifts towards fairness across the supply chain, and in particular for local producers, ensuring that prices support the viability of agroecological farming. These examples show that the same generic action can address different challenges in different futures. Conversely, public procurement to stimulate stable demand emerged as a more consistent lever across scenarios. Particularly through settings such as schools, public procurement was repeatedly identified as a way to create predictable demand and support the transition towards healthier and more sustainable food systems.

The synthesis also revealed actions whose relevance was more strongly associated with particular scenarios. Strategic food reserves and contingency plans for supply disruptions were highlighted in both *global efficiency* and *agroecological networks*. Although these scenarios represent contrasting food-system configurations, both involve important vulnerabilities. In *global efficiency*, dependence on international markets exposes Brussels to price fluctuations, geopolitical developments and disruptions beyond its control. In

agroecological networks, greater reliance on local and seasonal production can create different vulnerabilities, including fluctuations in local availability and production. The prominence of preparedness measures in both scenarios therefore suggests that different forms of food-system dependence can create a need for resilience planning.

By contrast, several infrastructure-related actions were only considered relevant in the *sustainable islands* scenario, like developing shared hubs and last-mile logistics infrastructure, developing processing and storage facilities adapted to local and regional needs, building on and further developing existing infrastructure, and providing affordable urban space for production, processing and experimentation. In this scenario, food provision is organised through parallel, relatively distinct and specialised local and regional circuits. Such a context increases the importance of infrastructure that enables these circuits to function, connect and coordinate effectively.

Finally, the absence of an action from a scenario's discussions should not be interpreted as evidence that the action is unnecessary or irrelevant in that future. Rather, it indicates that participants did not prioritise it in the context of that particular scenario. For example, *avoiding marginalisation in food systems* was not highlighted in *global efficiency*. In a scenario characterised by competitive markets and potentially low food prices, participants appeared to place greater emphasis on health-related concerns than on economic access to food. This does not mean that affordability or social inclusion would not matter, but that participants perceived other challenges as more pressing within the scenario. The cross-scenario synthesis therefore captures perceived priorities under different future conditions, rather than providing a definitive assessment of which actions are universally necessary or sufficient.

Table 18: *Generic action matrix.*

Action theme	Generic action	S1 Global efficiency	S2 Sustainable islands	S3 Coordinated sustainability	S4 Agroecological networks
Education, skills & awareness	Frame sustainable and healthy eating in public campaigns	Use personal health as an argument in public campaigns to promote sustainable and healthy eating	Define Good Food to facilitate dialogue among local stakeholders to avoid greenwashing in a highly diverse situation that needs to be coordinated	Use awareness campaigns to foster democratic debate on healthy and sustainable food; promote dialogue on cultural diversity in food systems	Clarify definitions of local and agroecological production
	Strengthen food education in schools and among citizens	Strengthen nutrition education to foster healthy food patterns	-	Maintain schools as key hubs for food education and local engagement	Invest in food education to support local, seasonal diets and reduce food waste
	Strengthen food education for professionals	Invest in professional training and skills development (identified in the workshop, not detailed)	-	Invest in skills development and bottom-up training	Train chefs, processors and citizens in seasonal cooking and preservation techniques
Social inclusion & cultural diversity	Acknowledge cultural diversity in food systems	Ensure diversity of products offered and make sure remaining companies do not reduce cultural diversity in the available products	Implement targeted inclusion measures to prevent marginalization and avoid that the regional value chains overlook cultural preferences	-	Promote cultural adaptation and culinary innovation to preserve dietary diversity
	Avoid marginalisation in food systems	-	Map and connect with existing diaspora- and community-run food processing initiatives in Brussels	Strengthen solidarity mechanisms and social inclusion to protect vulnerable groups from rising living costs	Introduce a Social Security for Food to ensure access to quality nutrition
Public procurement	Use public procurement to stimulate stable demand	Use public procurement to foster healthy food patterns, via schools	Use public procurement in to foster healthy food patterns	Use public procurement to stimulate competition and demand for sustainable products	Use public procurement to create stable demand, via schools
	Regulate/restrict unhealthy and unsustainable food environments, especially near schools	Use regulation to limit junk food in public spaces, especially near schools	Use regulation to limit junk food in public spaces, especially near schools	-	-
Digitalisation & data	Use technology and data tools for personalised nutrition & wellness	Use technology (e.g., personalized nutrition tools based on DNA profile) to support wellness and health	-	-	-
	Develop digital platforms	-	-	Develop digital platforms to monitor demand and match supply with local needs	-
Business models & market justice	Increase price transparency and fairness	Ensure price transparency and apply “the polluter pays” principle and true cost pricing	Ensure price transparency and apply “the polluter pays” principle and true cost pricing	Strengthen traceability and trust systems to prevent fraud and adulteration	Ensure price transparency and fairness of agroecological products to ensure price justice
	Adapt taxes and financial incentives in favour of sustainable and healthy food	Use for example carbon markets and VAT to reflect the environmental impacts of production	Provide financial and tax incentives for businesses prioritizing local products which are aligned with the good food definition (e.g. organic)	-	Adjust VAT to make healthy food more affordable and complement food security measures
	Coordinate and manage value chains	-	Coordinate regional specialization, manage parallel value chains (organic…) and coordinate diversity of cooperative last-mile delivery	Foster collective marketing and knowledge sharing through consortia	Foster collective distribution and processing through cooperation and consortia

			models as alternatives to platform monopolies		
Production & sourcing systems	Shift diets toward plant-based to reduce dependence on imported feed inputs	Promote plant-based diets as healthy diets to reduce dependence on imported inputs and strengthen resilience	-	-	-
Infrastructure & hubs	Develop shared hubs & last-mile logistics infrastructure	-	Develop and support shared hubs and last-mile logistics for organic and conventional supply chains	-	Develop local storage and processing facilities to manage seasonality
	Develop adapted processing and storage infrastructure	-	Develop mid-scale processing and storage infrastructure bridging small-scale and industrial capacity	-	Develop mid-scale processing infrastructure bridging small-scale and industrial capacity
	Build on and further develop existing infrastructure	-	Leverage existing infrastructure (e.g., Anderlecht slaughterhouse, metro network)	-	-
	Provide affordable urban space for production, processing & experimentation	-	Provide affordable urban space for production, processing, and experimentation	-	-
Regulation & governance	Coordinate cross-regional distribution & cooperation (Brussels–Flanders–Wallonia)	-	Strengthen distribution and cooperation across Brussels, Flanders, and Wallonia to scale up and foster efficiency	-	-
	Adapt regulatory framework in favour of sustainable and healthy food	-	-	Develop or adapt processing rules and standards tailored to small-scale/artisanal transformation. Support small businesses in meeting administrative requirements and accessing EU-wide tenders	Develop or adapt processing rules and standards tailored to small-scale/artisanal transformation
Risk management & contingency planning	Build strategic food reserves to buffer shortages and price volatility	Build strategic food reserves to buffer shortages and price volatility.	-	-	Improve crisis preparedness through increased storage capacity
	Develop contingency plans for food-supply disruptions	Develop contingency plans for food supply disruptions.	-	-	Support producers of different scales via contingency planning

3.4 Feasibility, responsibilities and existing initiatives

Following the cross-scenario synthesis, the main generic actions were further examined in terms of their practical implementation. This analysis focused exclusively on the robust and nearly robust actions, as these were identified as relevant across all or most of the scenarios. Each action was examined in terms of its feasibility, expected effectiveness, relative priority, existing initiatives, potential implementation barriers, and governance responsibilities. The analysis complements the workshop findings by highlighting the practical conditions that could support or constrain the implementation of these actions. The following sections discuss each of these actions in turn.

3.4.1 Frame sustainable and healthy eating in public campaigns

The expert discussion considered awareness campaigns as important, but not sufficient to change food behaviour. Interventions that target the wider food environment, such as regulating unhealthy food advertising, may have greater impact. Implementation barriers included limited budgets, overly technical or elitist communication, lack of shared definitions of sustainable and local food, legal restrictions on health claims, and the risk of polarisation around sustainability and plant-based diets.

Implementing these actions requires coordination across different levels of government, as responsibilities for health promotion, advertising and labelling are divided between regional, federal and European authorities (De Bauw et al., 2025). Several existing policy frameworks and instruments are relevant in this regard. In Brussels, the Good Food Strategy 2022-2030 provides a regional framework for promoting a more sustainable and healthy food system (Bruxelles Environnement, 2021). At the national level, the Superior Health Council's dietary guidelines can help inform communication about healthy eating, including the relationship between health and sustainability (Superior Health Council (of Belgium), 2025). At the same time, the voluntary nature of Nutri-score limits its role as a universally applied tool for informing consumers about the nutritional quality of food (European Commission, 2020). These examples illustrate both the existing foundations on which the action can build and the limitations of current instruments.

3.4.2 Use public procurement to stimulate stable demand

The expert discussion considered public procurement a high-impact action, with schools, hospitals, care homes and public catering identified as important leverage points. Joint procurement and working at an appropriate scale were seen as important, because individual institutions may be too small to influence markets. Procurement cannot be addressed only from the demand side, as sufficient sustainable supply needs to be available, affordability remains a concern, and governance responsibilities across institutions and levels of government need clarification.

Several initiatives already use procurement as a lever. The Brussels Good Food canteen label sets minimum criteria (organic share, vegetarian option, seasonal products, food-waste action) for canteens[1]. Wallonia approved a collective catering roadmap in May 2026, with cost support for local and organic products[2], and also Flanders is occasionally funding healthy school food[3], focusing on

[1] https://leefmilieu.brussels/pro/diensten-en-aanvragen/advies-en-begeleiding/het-good-food-kantine-label-duurzame-grootkeukens-brussel

[2] https://www.wallonie.be/fr/acteurs-et-institutions/wallonie/gouvernement-de-wallonie/communiques-presse/2026-05-29-0

[3] https://www.vlaanderen.be/onderwijs-en-vorming/gezondheid-welzijn-en-veiligheid-op-school/gezondheid-op-school/gezonde-voeding-op-school

targeted subsidies for vulnerable schools rather than universal rollouts, though real-world implementation remains constrained by co-funding requirements from local municipalities.

European rules do not allow geographic origin as an award criterion, which limits the possibility to favour short chains directly. Some Member States nevertheless use indirect or regionally framed approaches, such as Italy, Spain and France, although the legal basis of these approaches remains contested (Kapała & Muñoz Gómez, 2024). The Commission's proposed Public Procurement Act could partly change this by allowing public buyers to weigh criteria such as nutrition, organic production, freshness, seasonality, fairness in the food chain and animal welfare alongside price (European Commission, 2025). The discussion also stressed the need to connect procurement with food education, health and the work of cooks and caterers.

3.4.3 Increase price transparency and fairness

The expert discussion stressed that fair pricing should account for both environmental and health externalities and not only production costs. True-cost pricing, VAT adjustments and the polluter-pays principle were discussed as mechanisms, but many relevant instruments fall under federal or European competences. Other implementation barriers include limited transparency around retail margins, the dominance of cheap-food market logic, competition-law constraints and unequal access to affordable agricultural land and subsidies. The main existing instruments is the federal Act of December 2021 on unfair trading practices in the agrifood chain[4], which covers business-to-business relations and not consumer prices. No Brussels-level instrument was identified.

3.4.4 Strengthen food education in schools and among citizens

The expert discussion considered school-based food education as one of the most feasible and potentially high-priority actions. Schools provide an existing, relatively low-cost way of reaching children early, but education should focus on practical behaviour and experience (cooking, supermarket visits, discussing food origins) rather than theory alone. Barriers include crowded secondary-school curricula and the need to give teachers ready-to-use materials and support. Framing matters, as labels such as "vegetarian" can reduce the acceptance, and teachers should be involved in designing the tools. Education is a largely a community competence. In Brussels, Bruxelles Environnement offers free teaching kits[5], Flanders base their food policy on the food triangle and can receive a subsidy for fruit, vegetables or milk[4], and Wallonia's Green Deal Cantines durables includes school kitchens[3].

3.4.5 Strengthen food education for professionals

This action was not part of the expert discussion on feasibility. Existing support is mostly project- and label-based. The Good Food Strategy offered a training cycle for food entrepreneurs in 2022 and coaching through the Good Food canteen and resto labels, and Wallonia's Green Deal Cantines durables supports canteens for 18 months, including training. No structural training offer for cooks and other food professionals was identified in this review.

3.4.6 Acknowledge cultural diversity in food systems

The expert discussion saw opportunities for producers, processors, retailers and restaurants to use diverse food traditions to promote more sustainable and plant-based diets. Implementation barriers

[4] https://economie.fgov.be/en/themes/enterprises/business-protection/unfair-practices/unfair-trade-practices

[5] https://environnement.brussels/enseignement/outils-pedagogiques/outils-pedagogiques-sur-le-theme-de-la-biodiversite

include the difficulty of assessing culturally diverse foods through existing sustainability and health labels, the risk that regional food campaigns focus too strongly on traditional Belgian products, and limited representation of culturally diverse entrepreneurs in sectoral organisations. Ethnic food entrepreneurs, community retailers and neighbourhood food networks already maintain diverse food environments but often operate in silos. Existing policy offers frameworks rather than concrete measures. For example, the Good Food Strategy takes a neighbourhood-based approach that reflects local cultural realities (Bruxelles Environnement, 2021), and the 2025 dietary guidelines recognise culinary traditions as the starting point for dietary change (Superior Health Council (of Belgium), 2025).

3.4.7 Adapt taxes and financial incentives in favour of sustainable and healthy food

This action was not part of the expert discussion on feasibility. Fiscal instruments are mainly federal and European. Belgium has a sugar tax on soft drinks, and the federal budget agreement of November 2025 reportedly adjusts VAT on soft drinks and takeaways[6]. At regional level, incentives take the form of subsidies, as Wallonia supports local and organic sourcing in canteens, and Flanders funds healthy school food.

3.4.8 Coordinate and manage value chains

The expert discussion confirmed the relevance and feasibility of stronger value-chain coordination, while stressing that coordination alone is insufficient if other stages of the chain remain weak. They highlighted the need for first-stage processing, such as sorting and drying, and for stronger collaboration. They did not prioritise creating an entirely new logistics hub across Flanders and Wallonia, but emphasised making better use of existing infrastructure, although a hub could remain relevant for Brussels-specific last-mile logistics. Barriers include a lack of shared objectives, limited logistics expertise and storage capacity among smaller actors, and underuse of shared facilities. Existing initiatives include the Good Food channels in Brussels, with support for producers, processors and caterers, and Wallonia's "hub logistique circuit court alimentaire", which aims to strengthen the link with Brussels. No formal Brussels-Flanders-Wallonia agreement on food chains was identified. Relevant actors include regional authorities, logistics operators, retailers, producer cooperatives and sector organisations.

[6] https://knowledge-for-policy.ec.europa.eu/health-promotion-knowledge-gateway/sugars-sweeteners-10_en

4 Discussion

Building on the barriers identified in Q3 and the exploratory scenarios developed in Q4, Q5 explored which actions could support the transition towards a more sustainable Brussels food system, and how their relevance might change under different future conditions. Four main lessons emerge from this process: the value of participatory foresight in an uncertain context, the need to address interconnected barriers, the importance of recognising trade-offs, and the need to combine robust action direction within context-sensitive implementation.

4.1 Participatory foresight in an uncertain Brussels context

Urban food systems contribute significantly to global environmental pressures, while cities themselves remain vulnerable to climate-related disruptions and their social consequences (FAO, 2023; IPBES, 2019). Brussels illustrates these tensions clearly. Home to 1.25 million residents representing more than 180 nationalities, the region combines ambitious sustainability ambitions with persistent socioeconomic inequalities (Amrom et al., 2026). More than one-third of the population is at risk of poverty or social exclusion (BISA, 2025; FDSS, 2026), while only 0.3% of demand for staple foods is produced within the region itself (Riera et al., 2020). At the same time, barriers identified in Q3, including policy fragmentation, administrative complexity and limited institutional support, complicate efforts to transform the food system sustainably (De Schaepmeester et al., 2026).

To address uncertainty in such complex socio-economic systems, foresight approaches are increasingly used to explore alternative futures and support strategic decision-making for sustainable transformation (Bourgeois et al., 2017; Hebinck et al., 2018; Schwarz, 2023). Participatory approaches complement this by bringing together diverse forms of knowledge and experience, enabling collective learning and reflection on future challenges (Johnson et al., 2012; Oteros-Rozas et al., 2015; Pereira et al., 2019). The scenarios developed in Q4 therefore served not as predictions, but as exploratory environments through which participants could assess how actions might perform under different future conditions.

The workshops however showed that imagining alternative futures can be challenging. Participants differed in their understandings of sustainability and in how they balanced environmental goals, affordability, social justice and economic viability. Some found the scenarios abstract, while others struggled to engage with futures they considered undesirable. In several cases, participants proposed actions intended to alter the conditions of a scenario rather than respond to them. These difficulties reflect a broader challenge in foresight, as such processes deliberately confront participants with their own values and assumptions (Wright et al., 2013).

At the same time, the exercise demonstrated the value of exploring less desirable futures. Even when participants disagreed with a scenario, discussions helped identify actions that could address its specific vulnerabilities. Rather than imposing which future Brussels should pursue, the process revealed how priorities and implementation requirements may shift across different contexts and challenged assumptions about what should be an effective response (Börjeson et al., 2006; Wiebe et al., 2018).

These findings should be interpreted in light of the exercise's limitations. The participant backgrounds and group dynamics influenced the actions that received attention. The resulting action matrix should therefore be understood as a participatory exploration of possible pathways rather than a definitive

assessment of policy options. Additional evaluation remains necessary to establish the feasibility and effectiveness of individual actions.

4.2 Trade-offs across scenarios and actions

The Q4 assessment showed that the four scenarios involve different trade-offs across sustainability dimensions, including climate impact and land use. No single scenario emerged as unambiguously preferable across all assessed dimensions. The Q5 discussions complement these findings by showing the practical, economic and social tensions that may arise when actions are considered within different future contexts.

For example, highly integrated international supply chains may offer efficiency and product diversity while maintaining a high dependency on external markets. More locally organised food systems may strengthen regional connections and support local producers, but may also face challenges in ensuring year-round availability and access to the range of ingredients that reflects Brussels' diverse food cultures. Similarly, stricter sustainability standards may improve accountability while creating additional administrative or financial burdens for smaller businesses. Shorter food chains may create opportunities for local value creation without necessarily guaranteeing that food remains affordable.

These examples show that actions and strategies can involve competing objectives and unintended consequences. Local production does not automatically guarantee affordability or resilience, just as international supply chains do not necessarily prevent sustainable outcomes. Transition strategies therefore need to consider how environmental objectives interact with affordability, resilience and economic viability. Making such trade-offs explicit is therefore a necessary part of developing transition strategies (Ericksen, 2008; Oliver et al., 2018b).

Important here is, that the future scenarios should be understood as contrasting and exploratory futures rather than realistic predictions. The future Brussels food system will likely combine characteristics of several scenarios, potentially generating extra interactions and trade-offs that cannot be fully captured within a single storyline. Nevertheless, working with contrasting futures provides a useful way to challenge assumptions about the desirability and feasibility of different strategies and to identify where systemic and adaptive approaches may be needed.

4.3 Systems thinking for food-system transitions

Beyond the methodological insights, the results reinforce the importance of understanding the Brussels food system as an interconnected system. As identified in Q3, barriers related to demand, economic feasibility and supply reinforce one another, meaning that addressing one barrier in isolation may have limited effects (De Schaepmeester et al., 2026).

The Q5 discussions further illustrate this interdependence. Food education, for example, may encourage healthier and more sustainable consumption, but its contribution depends partly on whether such food is affordable and accessible. Public procurement can create stable demand and support suppliers, processors and logistics actors, but still requires sufficient supply and processing capacity, appropriate procurement procedures and coordination. These examples show that the relevance of an action across different scenarios does not necessarily mean that it can be implemented independently or that it will be effective on its own.

This points to the importance of considering actions as part of broader combinations of interventions and enabling conditions, rather than as isolated solutions. Assessing potential actions therefore requires attention not only to the barriers they address, but also to the wider conditions on which their implementation depends (Haasnoot et al., 2013; Oliver et al., 2018b).

4.4 Robust actions require context-sensitive implementation

Taken together, the findings suggest that identifying actions that remain relevant across different future scenarios is a starting point, rather than an end in itself. Their implementation requires collaboration between the diverse actors shaping Brussels' food system and coordination across governance levels. Given the region's dependence on external food supplies and the diversity of stakeholders involved, progress depends on complementary efforts by public authorities, food businesses, civil-society organisations and other actors.

To assist actors in this process, a roadmap that translates these insights into a practical tool for organisations across Brussels' food system was developed through BRUFO2050 (Appendix B). It helps actors reflect on uncertainty, identify relevant actions and consider the conditions required for implementation. Rather than prescribing a single pathway towards 2050, the roadmap supports adaptive decision-making and encourages actors to situate their choices within the wider food system.

Conclusion

This report explored how the barriers to a more sustainable Brussels food system can be addressed through actions that remain relevant under different possible futures. Building on the systemic barriers identified in Q3 and the exploratory scenarios developed in Q4, Q5 brought together participatory workshops and expert discussions to examine potential actions, their relevance across scenarios, and the conditions that may influence their implementation.

The findings highlight that there is no single set of actions that can be expected to work equally well in every future. Changes in production systems, markets, governance and supply chains may alter both the relevance of particular actions and the conditions under which they can be implemented. Nevertheless, the scenario exercise identified several directions that participants considered relevant across contrasting futures. These include promoting and framing healthy and sustainable eating, using public procurement to stimulate stable demand, and improving price transparency and fairness. Other actions, particularly those related to infrastructure and supply-chain organisation, depend more strongly on the context in which they are implemented.

The findings also highlight that, because the barriers identified in Q3 are interconnected, individual interventions may have limited effects when the wider conditions needed for their success are absent. Progress therefore requires attention to the relationships between demand, supply and economic feasibility, as well as to affordability, social inclusion, cultural diversity and the viability of food businesses. It also requires coordination between the many actors and levels of governance that shape Brussels' food system.

The practical contribution of BRUFO2050 is to connect this long-term perspective with actions that food-system actors can take today. The roadmap developed through the project translates the research process into a tool that organisations across Brussels' food system can use to reflect on changing conditions, identify relevant actions and consider the barriers and dependencies that may affect their implementation. The aim is not to predict what Brussels' food system will look like in 2050, nor to establish that the identified actions will necessarily achieve their intended outcomes. Rather, BRUFO2050 provides a structured approach to preparing for uncertainty and identifying strategic directions that can guide action across different possible futures.

Appendix A: Workshop participants

	Logic 1 - Grounding in lived practices	Logic 2 - Imagining alternatives	Logic 3 - Enabling action	Logic 4 - Analysing systemic dynamics
Consumption	Citizen (1)			Sciensano (1); Social geography research (1,2); ULB (2)
Horeca		Entropy (1)	HorecaFormaBePro (2); Visit.Brussels (1)	Foodcomm (2)
Retail		BEES coop (1,2)		
Collective catering	Cuisines Bruxelloises (1)	As Bean SSA (1)		Coduco (1,2)
Food aid	Hearth project (1)	4Wings Foundation (2)	Fédération des Services Sociaux (1); LOCO (2)	
Wholesale	Abattoir NS/SA (2); Solucious (1)	UP! Lokal (1,2)		
Processing		Fermenthings (1)	Citydev.Brussels (2); FAVV-AFSCA (2)	Food
Logistics		Linked.Farm (1,2)	Logistics in Wallonia (1)	
Production	Collège des producteurs (1,2)	Atelier Groot Eiland (1)	VLM (2)	
Cross-cutting: policy, support			FOD/SPF Economie (1,2); SPW Wallonie (2); Bruxelles Environnement (1,2)	Factor X (2)

(1) Participation in workshop 1 ; (2) Participation in workshop 2 ; (1,2) Participation in workshops 1 & 2.

Appendix B: Roadmap for actors

BRUFO2050 | SYTRA

How to improve the sustainability of the Brussels food system?

Towards a roadmap for Brussels food system's actors

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You want to know more about BRUFO2050? Scan the QR code to see all the related reports & video!

About Brussels & the BRUFO2050 project

Brussels is a diverse city, where many different residents, food habits and food initiatives come together, while it mainly depends on regional and global supply chains for its food. This brings both opportunities and threats for a more sustainable food system. This roadmap, based on the results of the BRUFO2050 project, invites food system actors to regularly assess the sustainability context, be aware of possible barriers, explore possible futures, and (re)prioritise actions for their own organisation.

A very low self-sufficiency

Brussels' production covers **0.3%** of Brussels' needs for key staples

Some key figures about Brussels

1,249,597 inhabitants

37% of residents have foreign nationality.

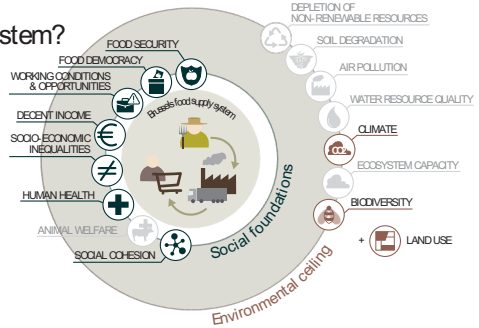
+28% daily increase in population

Step 1

How sustainable is the Brussels food system?

High · Medium · Low

We assessed the sustainability of Brussels food system relying on the sustainability donut, composed of seven environmental and eight socio-economic themes. Below, we assess each sustainability theme for a series of indicators. Due to limited data availability, some themes could not be assessed. Coloured dots show how sustainable each indicator is. Full details are in the second BRUFO2050 report (see QR code).



Socio-economic sustainability

Food security

Related indicators: affordability of food, food price inflation, geographic accessibility to food retailers, food insecurity and reliance on food aid, food self-sufficiency rate.

90,000 residents depend on food aid, a number that went up 30% since recent crises.

Food democracy

Related indicators: public engagement, awareness on sustainable food system issues, equitable access to food outlets, policy framework support for socially vulnerable groups in the food system

44% of Brussels residents have access to organic shops within walking distance (10-15'). There is however a strong disparity in access among Brussels municipalities (e.g., St-Josse (17%) vs Uccle (66%)).

Working conditions & opportunities

Related indicators: number of jobs in the agri-food sector, employment contract types, employees with atypical working hours.

There are **11,883** food industry companies in Brussels. Among the contracts in the agri-food sector in Brussels, **31.3%** are temporary (compared to 9% across all sectors in Brussels).

Social cohesion

Related indicators: urban food production, community gardening, number of sales points in short supply chains.

Brussels counts **392** collective vegetable gardens and **92** weekly markets.

Decent income

Related indicators: average income, turnover of the food industry.

The average income in Brussels' agrifood sector is **€4,200**. This is lower than the average income in Brussels (€4,700).

Socio-economic inequalities

Related indicators: poverty risk rate, BIM beneficiaries, income disparity in food spending.

37% of residents are at risk of poverty or social exclusion.

Households with the highest income (Quartile 4) spend **82%** more on food than those with the lowest income (Quartile 1).

Human health

Related indicators: prevalence of obesity and overweight, protein consumption from plant-based sources, proportion of the population meeting dietary recommendations.

44% of overweight (BMI ≥ 25) people (+18 yo)

Only **32%** of protein intake of Brussels residents are from plant-based sources.

Environmental sustainability

Climate

Related indicator: greenhouse gas footprint of Brussels food demand.

Brussels food demand leads to the emission of **1,008** kt of CO2e per year. This represents 12% of Belgian food demand emissions.

Biodiversity

Related indicator: hectares of soybean related to Brussels food demand.

23,000 ha of soybean are required to feed the animals consumed by Brussels residents. This accounts for 15% of Brussels land use footprint.

Land use

Related indicator: land use footprint of Brussels food demand.

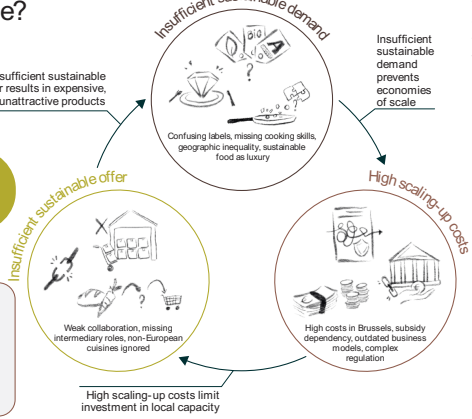
156,556 ha are required to meet Brussels' annual demand for food.

ASSESS HOW THE SUSTAINABILITY OF THE BRUSSELS FOOD SYSTEM EVOLVES.

Step 2

What prevents the Brussels food system from becoming more sustainable?

Three clusters of barriers explain why the transition to a more sustainable food system is difficult in Brussels. They reinforce each other in a self-sustaining loop, so none of them can be tackled in isolation.

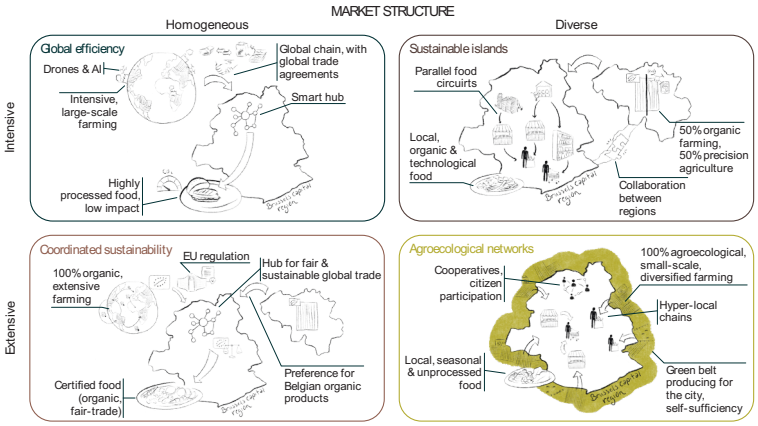


IDENTIFY THE BARRIERS PREVENTING YOUR ORGANISATION TO IMPROVE BRUSSELS FOOD SYSTEM'S SUSTAINABILITY.

Step 3

What will the future look like?

Four possible futures for the Brussels food system, based on two external factors: how food is produced (intensive or extensive) and how the market is organised (diverse or homogeneous).



IDENTIFY THE FUTURE TOWARDS WHICH WE ARE HEADING.

Step 4

What actions can be implemented to improve Brussels food system's sustainability?

The full list of actions identified during the BRUFO2050 project and their relevance in the different scenarios is presented in the A4 sheet provided with this poster.

The relevance of actions to improve Brussels food system's sustainability depends on the future we're heading towards:

- Some actions are relevant across all four scenarios, e.g., "Public procurement via schools".
- Some actions are relevant across all four scenarios, but should be implemented differently according to the scenario.
  "Framing sustainability" takes different forms depending on the scenario:
  Global efficiency: use health as entry point to better diets
  Sustainable islands: agree on a shared definition of "good food"
  Coordinated sustainability: keep the public debate on the definition alive
  Agroecological networks: explain what "agroecological" means
- Finally, some actions are only relevant in specific scenarios.
  "Technology" is especially important in Global efficiency (personalised nutrition tools), "Regulation on unhealthy food environments" is relevant in Global efficiency and Sustainable islands, but not in Agroecological networks and Coordinated sustainability, which are sustainable by definition. "Shared hubs, last mile logistics, processing and storage infrastructure" is mainly relevant in the decentralised/localised scenarios such as Sustainable islands and Agroecological networks.

REASSESS THE RELEVANCE OF THE ACTIONS YOUR ORGANISATION IMPLEMENTS IN LIGHT OF THE FUTURE WE'RE HEADING TOWARDS.

References

Amrom, C., De Schaepmeester, H., De Bauw, M., Riera, A., Mathijs, E., & Baret, P. (2026). *How does the Brussels food system operate? BRUFO2050 Research Report Q1*.

BISA. (2025). *Sociaal-economisch overzicht 2025*.

Borjeson, L., Hojer, M., Dreborg, K.-H., Ekvall, T., & Finnveden, G. (2005). *A user's guide to scenarios*.

Börjeson, L., Höjer, M., Dreborg, K.-H., Ekvall, T., & Finnveden, G. (2006). Scenario types and techniques: Towards a user's guide. *Futures*, *38*(7), 723–739. https://doi.org/10.1016/j.futures.2005.12.002

Bourgeois, R., Penunia, E., Bisht, S., & Boruk, D. (2017). Foresight for all: Co-elaborative scenario building and empowerment. *Technological Forecasting and Social Change*, *124*, 178–188. https://doi.org/10.1016/j.techfore.2017.04.018

Bruxelles Environnement. (2021). *Stratégie Good Food 2022-2030*. https://goodfood.brussels/sites/default/files/inline-files/GF_A4_strat_FR_def_11.pdf

Courtois, A., Chevalier, C., Borniotto, D., Antier, C., & Baret, P. V. (2024). *GUIDEBOOK TO MAPPING LOCK-INS A step-by-step methodology designed to identify barriers to changes, along with breaking pathways of transition*.

De Bauw, M., reybrouck, K., Mathijs, E., & Vandevijvere, S. (2025). *From fragmentation to transformation: Multi-level policy mixes for sustainable healhty food environments in Belgium*.

De Schaepmeester, H., Amrom, C., Riera, A., Mathijs, E., & Baret, P. (2026). *What are the barriers towards a more sustainable system? A systemic analysis of barriers across the Brussels food value chain. BRUFO2050 Research Report Q3.*

De Schaepmeester, H., De Bauw, M., & Mathijs, E. (2026). *The Logics of Representation in Participatory Foresight: An Analysis of Urban Food Systems*.

Dendoncker, N., Boeraeve, F., Crouzat, E., Dufrêne, M., König, A., & Barnaud, C. (2018). How can integrated valuation of ecosystem services help understanding and steering agroecological transitions? *Ecology and Society*, *23*(1), art12. https://doi.org/10.5751/ES-09843-230112

Duru, M., Therond, O., & Fares, M. (2015). Designing agroecological transitions: A review. *Agronomy for Sustainable Development*, *35*(4), 1237–1257. https://doi.org/10.1007/s13593-015-0318-x

El Bilali, H. (2019). The Multi-Level Perspective in Research on Sustainability Transitions in Agriculture and Food Systems: A Systematic Review. *Agriculture*, *9*(4), 74. https://doi.org/10.3390/agriculture9040074

Ericksen, P. J. (2008). Conceptualizing food systems for global environmental change research. *Global Environmental Change*, *18*(1), 234–245. https://doi.org/10.1016/j.gloenvcha.2007.09.002

European Commission. (2020). *Report from the Commission to the European Parliament and the Council*.

European Commission. (2025). *How EU public procurement rules affect regions and cities*. Publications Office. https://doi.org/10.2863/0379789

FAO. (2023). *Building sustainable and resilient city region food systems—Assessment and planning handbook*. FAO. https://doi.org/10.4060/cc5184en

FDSS. (2026). *Etat des lieux de l'aide alimentaire 2026*. https://www.fdss.be/wp-content/uploads/2024_RAPPORT_EtatdesLieuxAA2024_VF.pdf

Gaupp, F., Ruggeri Laderchi, C., Lotze-Campen, H., DeClerck, F., Bodirsky, B. L., Lowder, S., Popp, A., Kanbur, R., Edenhofer, O., Nugent, R., Fanzo, J., Dietz, S., Nordhagen, S., & Fan, S. (2021). Food system development pathways for healthy, nature-positive and inclusive food systems. *Nature Food*, *2*(12), 928–934. https://doi.org/10.1038/s43016-021-00421-7

Geels, F. W. (2018). *Socio-Technical Transitions to Sustainability*. *Oxford Research Encyclopedia of Environmental Science*. https://doi.org/https://doi.org/10.1093/acrefore/9780199389414.013.587

Haasnoot, M., Kwakkel, J. H., Walker, W. E., & Ter Maat, J. (2013). Dynamic adaptive policy pathways: A method for crafting robust decisions for a deeply uncertain world. *Global Environmental Change*, *23*(2), 485–498. https://doi.org/10.1016/j.gloenvcha.2012.12.006

Hebinck, A., Vervoort, J. M., Hebinck, P., Rutting, L., & Galli, F. (2018). Imagining transformative futures: Participatory foresight for food systems change. *Ecology and Society*, *23*(2), art16. https://doi.org/10.5751/ES-10054-230216

IPBES. (2019). *The global assessment report on biodiversity and ecosystem services summary for policymakers summary for policymakers of the IPBES global assessment report on biodiversity and ecosystem services.* www.ipbes.net

Johnson, K. A., Dana, G., Jordan, N. R., Draeger, K. J., Kapuscinski, A., Olabisi, L. K. S., & Reich, P. B. (2012). Using Participatory Scenarios to Stimulate Social Learning for Collaborative Sustainable Development. *Ecology and Society*, *17*(2). https://www.jstor.org/stable/26269034

Kapała, A., & Muñoz Gómez, M. J. (2024). Local food systems in public procurement. A comparative law analysis in four European Union Member States. *Przegląd Prawa Rolnego*, (1(34)), 115–128. https://doi.org/10.14746/ppr.2024.34.1.7

Könnölä, T., Scapolo, F., Desruelle, P., & Mu, R. (2011). Foresight tackling societal challenges: Impacts and implications on policy-making. *Futures, Special Issue: Future-Oriented Technology Analysis*, *43*(3), 252–264. https://doi.org/10.1016/j.futures.2010.11.004

Loorbach, D. (2010). Transition Management for Sustainable Development: A Prescriptive, Complexity-Based Governance Framework. *Governance*, *23*(1), 161–183. https://doi.org/10.1111/j.1468-0491.2009.01471.x

Oliver, T. H., Boyd, E., Balcombe, K., Benton, T. G., Bullock, J. M., Donovan, D., Feola, G., Heard, M., Mace, G. M., Mortimer, S. R., Nunes, R. J., Pywell, R. F., & Zaum, D. (2018a). Overcoming undesirable resilience in the global food system. *Global Sustainability*, *1*, e9. https://doi.org/10.1017/sus.2018.9

Oliver, T. H., Boyd, E., Balcombe, K., Benton, T. G., Bullock, J. M., Donovan, D., Feola, G., Heard, M., Mace, G. M., Mortimer, S. R., Nunes, R. J., Pywell, R. F., & Zaum, D. (2018b). Overcoming undesirable resilience in the global food system. *Global Sustainability*, *1*, e9. https://doi.org/10.1017/sus.2018.9

Oteros-Rozas, E., Martín-López, B., Daw, T. M., Bohensky, E. L., Butler, J. R. A., Hill, R., Martin-Ortega, J., Quinlan, A., Ravera, F., Ruiz-Mallén, I., Thyresson, M., Mistry, J., Palomo, I., Peterson, G. D., Plieninger, T., Waylen, K. A., Beach, D. M., Bohnet, I. C., Hamann, M., … Vilardy, S. P. (2015). Participatory scenario planning in place-based social-ecological research: Insights and experiences from 23 case studies. *Ecology and Society*, *20*(4), art32. https://doi.org/10.5751/ES-07985-200432

Pereira, L. M., Sitas, N., Ravera, F., Jimenez-Aceituno, A., & Merrie, A. (2019). Building capacities for transformative change towards sustainability: Imagination in Intergovernmental Science-Policy Scenario Processes. *Elementa: Science of the Anthropocene*, *7*, 35. https://doi.org/10.1525/elementa.374

Riera, A. (2026). *Unpacking food system transitions across multiple scales. The Belgian livestock sector* [UCLouvain]. https://doi.org/https://doi.org/10.13140/RG.2.2.31479.28327

Riera, A., Antier, C., & Baret, P. (2020). *Vers un approvisionnement alimentaire durable de la ville de Bruxelles: Possibilités dans et autour du contexte urbain*. Sytra - Earth and Life Institute - UCLouvain. https://sytra.be/fr/publication/nourrir-bruxelles/

Riera, A., De Schaepmeester, H., Amrom, C., Mathijs, E., & Baret, P. (2026). *Exploring future scenarios for the food system in Brussels. BRUFO2050 Research Report Q4.* https://sytra.be/publication/brufo2050/

Riera, A., Duluins, O., Antier, C., & Baret, P. V. (2025). Which types of quantitative foresight scenarios to frame the future of food systems? A review. *Agricultural Systems*, *225*, 104270. https://doi.org/10.1016/j.agsy.2025.104270

Schwarz, J. O. (2023). *Strategic Foresight: An introductory guide to practice*. Routledge.

Superior Health Council (of Belgium). (2025). *Dietary recommendations for the Belgian population—2025*.

Voros, J. (2003). A generic foresight process framework. *Foresight*, *5*, 10–21. https://doi.org/10.1108/14636680310698379

Wiebe, K., Zurek, M., Lord, S., Brzezina, N., Gabrielyan, G., Libertini, J., Loch, A., Thapa-Parajuli, R., Vervoort, J., & Westhoek, H. (2018). Scenario Development and Foresight Analysis: Exploring Options to Inform Choices. *Annual Review of Environment and Resources*, *43*(1), 545–570. https://doi.org/10.1146/annurev-environ-102017-030109

Wright, G., Bradfield, R., & Cairns, G. (2013). Does the intuitive logics method – and its recent enhancements – produce "effective" scenarios? *Technological Forecasting and Social Change*, *80*(4), 631–642. https://doi.org/10.1016/j.techfore.2012.09.003