



Crosscutting Managers

The EU Food 2030 Strategy and how it was addressed in Food Trails through the role of four Crosscutting Managers

Deliverable 8.6



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experiences shared by the Crosscutting Managers of the Food Trails over the past four years. We extend our gratitude to all those who contributed to the Crosscutting Managers activities, including city officers, researchers, and local stakeholders.

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Introduction: Food
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The Food Trails project, initiated under the FOOD 2030 EU research and innovation policy framework launched by the EU Commission in Milan during Expo2015 - addresses global sustainability challenges in cities. The framework achieves this by focusing on the following <u>4 thematic priorities</u>:



Food 2030 aims to foster research and innovation that yield multiple benefits across these four thematic priorities:

Nutrition for sustainable and healthy diets

- \cdot tackling malnutrition and obesity
- improving nutrition (for example, to support healthy ageing)
- sourcing and developing new protein alternatives to foster plant-based diets
- improving food authenticity, traceability and safety systems
- fostering consumption of forgotten crops for nutrition and resilience
- supporting the shift towards sustainable healthy diets with a focus on Europe and Africa

Food systems supporting a healthy planet

- climate-smart food systems that adapt to climate change, preserve natural resources and help reduce the flow of greenhouse gases into the atmosphere
- environmentally friendly and resilient food systems that boost biodiversity, ensure healthy ecosystems and soils and foster sustainable agriculture and aquaculture

Circularity and resource efficiency

- reducing food waste
- using unavoidable biomass and waste as a resource
- reducing water and energy use via more efficient and greener industrial processes and logistics
- providing more local food on demand for short supplychains
- fostering sustainable and biodegradable food packaging and reducing plastics in food

Innovation and empowering communities

- creating thriving innovation ecosystems and living labs that generate new business models, approaches, technologies and products
- empowering towns, cities, regions and local actors as agents of change
- fostering education, skills-building and awareness raising and getting people engaged in food science and local food policies
- supporting a place-based food systems sharing economy from farm to fork and fostering social innovation
- developing data-driven food and nutrition systems that meet societal needs

The ambition of Food 2030 is to **support research and innovation that can deliver co-benefits to these four thematic priorities**:

Throughout the project, **four Crosscutting Managers** (CCMs), each specialised in one of these co-benefits, collaborated with Food Trails cities to integrate sustainable food system principles into local policies and practices. They sometimes helped cities **adjust their priorities to achieve the desired results**.

The CCM role was introduced in Food Trails as a pioneering activity in European projects. The goal for the CCMs is to help cities maintain a systemic perspective. Each CCM interacts with the cities by holding them accountable for the four co-benefits (sometimes referred to as 'pillars'), engaging all 11 cities on each co-benefit, even though each city prioritises only two of them. This approach ensures that cities do not focus narrowly on individual benefits but address all thematic priorities holistically. The combined work of all four CCMs helps each city understand the interconnections among co-benefits and how they are respectively affected by food policy interventions.

While summarising a final set of findings and recommendations related to each co-benefit, this report emphasises essential learnings that can guide future initiatives and policy actions. Considering significant societal shifts, including the impact of the COVID-19 pandemic and economic challenges, European cities face growing pressures related to rising costs of living, increased inequality and evolving political landscapes affecting funding and operations. The lessons learned from the CCMs underscore the **importance of collaborative approaches and adaptive strategies in addressing evolving socioeconomic challenges**. This report aims to empower cities and stakeholders with actionable insights to navigate future food system initiatives effectively, fostering resilience and sustainability in European communities.











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2. City Achievements Across Food Trails: Progress and Impact Across the Four Co-Benefits

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CITIES' FOCUS ACROSS THE FOUR CO-BENEFITS AND ALONG THE WHOLE PROJECT

Cities participating in Food Trails **focused on various co-benefits**, with some also utilising Food Trails as a focal point for developing City Food Strategies. The focus of their activities was summarised in deliverable 3.3, highlighting their **progress and impact across the four co-benefits**. Additionally, the cities faced and addressed various challenges during the Food Trails project, requiring **adaptive responses**.

These challenges ranged from unprecedented events, such as the refugee crisis in Warsaw, to logistical hurdles, like funding delays in Birmingham. Despite these challenges, cities leveraged **peer-to-peer learning opportunities** to refine their pilot ideas and drive progress. Furthermore, cross-cutting collaboration was **facilitated through visits by Cross-Cutting Managers (CCMs) to all cities**, fostering a **systems thinking approach** to their initiatives and promoting collaboration across pillars. The official list of pilot names is provided below.





PILOT PROJECTS OF THE FOOD TRAILS CITIES

Bergamo

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FOOD 2030 - Priority: **Nutrition**; Secondary cobenefit: **Climate**

- 1. PILOT 1: **Food Policy**. Developing a comprehensive food policy strategy at municipal level
- 2. PILOT 2: Healthy School Meals. Transitioning to plant-based proteins and organic food in primary schools
- 3. PILOT 3: **Food Education**. Promoting sustainable and healthy food choices among teachers, children and parents.

Birmingham

FOOD 2030 - Priority: **Circularity**; Secondary cobenefit: **Nutrition**

- 1. PILOT 1: **Urban Regeneration for Food Production**. Feasibility of sustainable food growing through urban regeneration
- 2. PILOT 2: **Community Composting**. Community-led food waste separation and composting initiatives
- 3. PILOT 3: **Protein Transition**. Increasing legume consumption among youth through holiday activities and engaging booklets

Bordeaux Metropole

FOOD 2030 - Priority: **Climate**; Secondary cobenefit: **Innovation**

- 1. PILOT 1: Metropolitan Food Council. Transition from advisory to executive body
- 2. PILOT 2: **Food Public Procurement**. Consolidating sustainable procurement from local and organic sources

Copenhagen

FOOD 2030 - Priority: **Climate**; Secondary cobenefit: **Innovation**

- 1. PILOT 1: Food Public Procurement. Roadmap for procurement policy development
- 2. PILOT 2: **The Price of a Meal**. Budget model to secure money for a sustainable meal.
- 3. PILOT 3: **Food Education**. Kit for pupils aged from 10 to 12 on sustainable farming
- 4. PILOT 4: **Kitchen App**. App to support the communication between kitchen staff and procurement officers.

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Funchal

Intro

FOOD 2030 - Priority: **Innovation**; Secondary cobenefit: **Nutrition**

- 1. PILOT 1: **Community**. Events and educational activities around sustainable and healthy diets
- 2. PILOT 2: **Circularity**. Empowering residents of social housing on composting and broader circular food waste practices

Grenoble-Alpes Métropole

FOOD 2030 - Priority: **Circularity**; Secondary cobenefit: **Climate**

- 1. PILOT 1: **Food Literacy**. A month of events across the city on the topic of food transition towards healthier diets
- 2. PILOT 2: **Promotion of Sustainable Diets in School Canteens**. A support program for municipalities at metropolitan level
- 3. PILOT 3: Inter-territorial Food Council. Establishing a metropolitan council for the local food system

Groningen

FOOD 2030 - Priority: **Innovation**; Secondary cobenefit: **Climate**

- 1. PILOT 1: **Promotion of Healthy Diets**. Cookbook and courses for schools and community centres
- 2. PILOT 2: **Urban Agriculture**. Supporting community-led initiatives
- 3. PILOT 3: Food Gardens for Food Aid
- 4. PILOT 4: Interdepartmental Working Group. Improved governance on food systems and protein transition

Milan

FOOD 2030 - Priority: **Circularity**; Secondary cobenefit: **Climate**

- 1. PILOT 1: Nudging Food Waste Reduction. Renovation of school canteens spaces to nudge food waste prevention and to promote healthy food
- 2. PILOT 2: Logistic for Surplus Redistribution. Scaling up the digital information system for food waste redistribution
- 3. PILOT 3: **School Compost**. Feasibility analysis of compost in kitchen centres and canteens
- 4. PILOT 4: **Food Education**. Booklets for children on food waste and healthy diets

Funchal



Thessaloniki

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FOOD 2030 - Priority: **Nutrition**; Secondary cobenefit: **Circularity**

- 1. PILOT 1: **Food Council**. Establishing an urban council at the municipality level focused on food waste prevention and circularity
- 2. PILOT 2: **Urban Agriculture**. Supporting the Urban vineyard and creating new vegetable gardens for students

Tirana

FOOD 2030 - Priority: **Nutrition**; Secondary cobenefit: **Circularity**

- 1. PILOT 1: **Short supply chain**. Creating a local market to connect farmers with citizens
- 2. PILOT 2: **Preventing food waste**. Actions for surplus food recovery and redistribution and awareness campaign

Warsaw

FOOD 2030 - Priority: **Innovation**; Secondary cobenefit: **Circularity**

- 1. PILOT 1: Food waste prevention in small restaurants
- 2. PILOT 2: Food waste reduction. Optimizing food management for organisations supported by the local food banks





CROSSCUTTING COLLABORATION

All cities were visited by each of the Crosscutting Managers (CCMs), regardless of whether the pillar was the primary focus of their pilot activity. In some cases, joint trips were arranged to encourage connections across pillars, promoting a systems thinking approach to their pilots.

The visits have been scheduled since the **beginning of 2022**, and were anticipated by **coordination calls** and email exchanges with each city, where city officers and CCMs defined the **schedule of the visit and the local stakeholders** that would be involved in the visit.

All cities were challenged to view their pilot actions under the lens of different Food2030 co-benefits, even when the visiting CCM represented a co-benefit that was not the focus of the city involved. For example cities engaged in redistributing food waste or surplus to communities in need were encouraged to consider the nutritional value of the menus offered, thus bridging the co-benefits of nutrition, circularity and innovation to engage communities effectively. These collaborative efforts were further supported by broader Food Trails activities, which showcased best practices from around the globe. For what concerns the Climate co-benefit, within the Food Trails project it was **defined as public food procurement and its climate impacts**: procurement has in fact emerged as a critical link between co-benefits, showcasing innovative approaches to engage all stakeholders in implementing healthier and more sustainable public sector menus, and cities were offered support to understand suitable procurement processes according to their possibilities and needs.

Additionally, cities were encouraged to **involve stakeholders across the entire supply chain**, ensuring the successful implementation of actions that prioritise health and sustainability from producer to consumer.

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Image: meeting with city officers and stakeholders in Groningen

Image: meeting with city officers and stakeholders in Warsaw

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CROSSCUTTING MANAGERS TRIPS



3. Challenges Encountered and Addressed During Food Trails by the Cities

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Images: shared gardens in Groningen, urban garden in Birmingham



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CHALLENGES HIGHLIGHTED BY FOOD TRAILS CITIES

During the Annual Partner Meeting in Funchal in 2023, cities participating in Food Trails identified **several key challenges**. These included financial constraints, data collection difficulties, stakeholder engagement, replicability and scalability, technological integration, coordination and jurisdiction issues, educational and social engagement, political support and fostering creativity and innovation. Addressing these challenges was deemed crucial for sustaining and expanding the impact of the Food Trails initiatives. Specific challenges related to each of these themes are reported below.

1. Financial and Budget Constraints

- Highlighted the need to integrate pilot methodologies into broader sustainability reports, which required additional funding and resources.
- Struggled with budget reallocation to support sustainable food policies; balancing cost and quality remained unresolved.
- Noted that the lack of metrics and financial support for educational programs risked project sustainability.

2. Data Collection and Measurement

- Expressed that lack of clear methodologies and data hindered understanding and policy development for the city's food system.
- Reported that the city had expanded activities without adequate metrics to measure success, complicating justification for ongoing support. This was common practice within municipalities.

3. Stakeholder Engagement and Management

- Emphasised the need for education and training of workers handling food donations, reflecting a gap in skills and knowledge.
- Cited frequent changes in managers and politicians caused instability and continuity issues.
- Reported that maintaining long term relations with stakeholders was crucial yet challenging.
- Mentioned the risk of losing progress post Food Trails and emphasised the need for dedicated personnel for sustained focus and engagement.
- Reported that coordinating NGOs for surplus food redistribution and engaging startups in public procurement remained challenging.
- Reported that governance issues within the interterritorial food project slowed decision making. They fed-back that mobilising NGOs without financial support and adapting to new food behavioural changes (e.g. the protein transition) are ongoing challenges.

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4. Replicability and Scalability

- Experienced difficulty in replicating and scaling the protein transition programme, which was essential for broader impact.
- Reported a need for ambassadors to champion initiatives, suggesting challenges in mobilising and motivating key stakeholders.

5. Technological Integration

 Reported the potential use of AI and other technological solutions for managing food donations but emphasised that this required significant investment and expertise.

6. Coordination and Jurisdiction Issues

- Highlighted a mismatch between the Metropole's role and direct jurisdiction over food canteens, complicating the implementation of food systems management.
- Stated that integrating multiple departments and ensuring cohesive strategies required strong coordination.
- Coordinating public private partnerships and navigating regulatory frameworks for surplus food management posed significant barriers to implementation.

7. Educational and Social Engagement

- Strong partnerships and educational activities required sustained effort and resources.
- Engaging youth and establishing new habits was a long-term endeavour demanding consistent effort.

8. Political and Policy Support

- Highlighted the challenge and necessity of data for political leverage.
- Mentioned their dependence on the individual will of officers and politicians for the continuation of projects.
- Sustaining political commitment beyond initial adoption stages requires continual restatement of support and alignment with broader urban strategies.

9. Creativity and Innovation

 Stated that the development of new tools required creativity and cooperation, which was often lacking, presenting a barrier to innovation. (n)

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The purpose of highlighting these challenges in this report is to ensure that **there is continuation and advancement beyond the pilot phase**. Rather than merely restating known issues, CCMs aimed to offer practical advice that helps cities maintain focus on the initiative's four co-benefits.

To ensure the continuation and expansion of the Food Trails initiative, cities must address these challenges by securing adequate funding, establishing robust data collection and evaluation mechanisms, and enhancing stakeholder engagement through continuous education and stable management.

Efforts should prioritise replicating and scaling successful pilots, integrating advanced technological solutions, and fostering strong coordination across departments. Additionally, long-term political support and efforts to cultivate creativity and innovation are essential for achieving a lasting impact across all four pillars of the Food 2030 strategy.

The lessons learned and recommendations from the CCMs in this report aim to provide cities with actionable insights and strategies to support their Living Labs beyond the Food Trails project, **as a long-lasting legacy for all cities to commit to sustainable food systems**.

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The lessons learned and recommendations from the CCMs in this report aim to provide cities with actionable insights and strategies to support their Living Labs beyond Food Trails. **4. Nutrition -**Crosscutting Manager Reflections

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NUTRITION INSIGHTS: ECONOMIC BENEFITS AND CITY APPROACHES TO CIRCULAR FOOD SYSTEMS

Malnutrition, encompassing both undernutrition and overnutrition (characterised by overweight and obesity), has profound implications for both individuals and societies. Beyond the financial costs, ensuring access to a diverse diet supports improved quality of life. It signifies not only better physical health but also better mental well-being and overall prosperity. Addressing malnutrition is essential not just for mitigating cost burdens but also for promoting a higher standard of living and well-being for all.

In 2022, data¹ revealed concerning trends: 8.3% of the EU population were unable to afford a meal containing meat, fish, or a vegetarian equivalent every second day, marking a one-percentage-point increase from 2021. Moreover, the share of individuals at risk of poverty in the EU unable to afford such meals reached 19.7% in 2022, representing a 2.2-percentage-point surge compared to the previous year.

A significant concern regards malnutrition is that overweight and obesity have reached 'epidemic proportions', according to the WHO European Regional Obesity Report 2022², affecting almost 60% of adults. 7.9% of children younger than 5 years and one in three school aged children live with overweight and obesity. No Member State is on track to halt the rise in obesity by 2025.

People living with obesity have increased health risks including diabetes, cardiovascular disease, some cancers and depression³. Obesity also impacts joint problems and reproductive health. The financial impact on individuals and society is measured in several ways with healthcare costs being the most obvious⁴. At the individual and household level non-communicable diseases (NCDs) can cause increased sickness-absence as well as costs associated with managing their health conditions. The healthcare costs for society are staggering..

Cost of illness studies highlight the cost to the EU healthcare system of cardiovascular disease (CVD) costs as €111 million⁵. The cost of diabetes across Europe in 2021 was £176 billion. The number of cases of diabetes is expected to rise to 67 million by 2030 from 61 million in 2023. It is worth noting that type-2 diabetes is the leading cause of CVD, blindness and amputations.⁶

In 2019, the Local Government Association in the UK emphasised the severity of the obesity challenge, labelling it as one of the most serious public health issues of the 21st century. They stressed the necessity of local government action, recognising the impact on quality of life, chronic disease risk and mental health. This came a few years after the 2015 Lancet Obesity series featuring the revolutionary guidance on 'How Governments Can Support Healthy Food Preferences.' Intro Nutrition Climate Circularity Innovation Suggestions F

In both cases, a whole systems approach was emphasised as this provides the opportunity to engage stakeholders across the wider system to develop a shared vision and actions that tackle the upstream causes of malnutrition including obesity. This approach aligns health with all policies and maximises all assets in the local area, including community assets. Additionally, it supports a community-centred approach to tackling health inequalities. Moreover, taking a whole systems approach presents a compelling business case, as healthier communities are more productive and place less demand on social care services. This underscores the importance of integrating obesity prevention efforts into broader agendas across local areas, maximising the use of local resources and community assets.

Three cities—Bergamo, Grenoble, and Milan emphasised 'nutrition for healthy and sustainable diets' as a primary focus of their pilot activities. Grenoble organised 'The Month of Food Transition', targeting the public through a series of events. Meanwhile, Bergamo and Milan concentrated on improving school meals whilst educating the school community about the recommendations laid out in the EAT-Lancet Commission - also known as the 'Planetary Health Diet'. Additionally, cities like Funchal and Birmingham developed educational resources to raise awareness of the benefits of pulses among school-aged children. Although Groningen's pilot initiatives centred around community cooking classes and growing projects, the city also prioritised the 'Protein Transition'. implementing a range of activities to encourage both the supply and demand of plant-based proteins.





FINDINGS AND LESSONS LEARNT

During visits, the CCM specialising in Nutrition led a presentation and workshop covering the following topics in the following order:

- 1. Conducting a nutrition situational analysis.
- 2. National dietary guidelines: development, significance and recommendations.
- 3. Comparing national guidelines to the Planetary Health Diet (EAT Lancet).
- 4. Nutrition education: addressing limitations of conventional approaches.
- 5. Impactful nutrition, food and health interventions: importance of community engagement.
- 6. Nutrition related policy levers to explore in pilot activities.

Regardless of the focus of the pilot, the presentation led to active discussions around nutrition guidance and how best to support communities. Cities demonstrated excitement, enthusiasm and willingness to take forward the nutrition-related recommendations made. Based on the visits to the eleven Food Trails cities, here are the key lessons learned regarding nutrition are:

Most cities have not conducted a nutrition situational analysis (or equivalent) on their populations.

This may be because those responsible for implementing Food Trails are not typically based within health departments and may lack access to this information. However, some teams collaborate with nutritionists and health professionals to gather insights into dietary patterns, nutritional status, health outcomes, socioeconomic factors and other relevant data.

Most cities do not explicitly reference national dietary guidelines in the development of their pilot activities.

While there is a general awareness of these guidelines among Food Trails cities, there is limited evidence of active use in guiding pilot activity development, with notable exceptions such as Copenhagen, Milan and Bergamo, which adhere to national guidance for school meals. However, several cities are embracing the principles of the Planetary Health Diet and promoting plant-based foods, including pulses, fruits and vegetables, in their health promotion activities. Climate



Cities are employing innovative methods to support citizens in making healthier, sustainable food choices.

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Birmingham, Funchal, and Groningen have developed activities and resources aimed at educating primary school children about the benefits of pulses. Meanwhile, cities like Groningen, Grenoble and Tirana have launched dynamic public campaigns to stimulate conversations about healthier, sustainable diets. In addition to these efforts, activities such as cooking classes and community growing projects are fostering community cohesion in Groningen, Warsaw and Thessaloniki. Moreover, cities collaborating with schools are adopting a 'Whole School Food Policy' approach. This involves developing educational resources and engaging the whole school community including food producers, kitchen staff, teachers, parents and children.



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NUTRITION: RECOMMENDATIONS FOR MOVING BEYOND THE FOOD TRAILS PILOT

1. Periodically Conduct a Nutrition Situational Analyses

Cities should prioritise conducting comprehensive nutrition situational analyses or equivalents on their populations to better understand dietary patterns, nutritional status (malnutrition including obesity/ overweight), health outcomes, socioeconomic factors and Food Insecurity (using FIES data). This can be achieved by collaborating with nutritionists, health professionals and relevant stakeholders to gather insights necessary for informed decision-making in future food policy initiatives.

2. Integrate National Dietary Guidelines into Policy Development

Cities should actively reference and integrate national dietary guidelines into the development of pilot activities. Emphasising the use of these guidelines provides a robust framework for guiding food policy actions and ensuring alignment with established nutritional standards. If national dietary guidelines do not adequately address the co-benefit 'Food Systems Supporting a Healthy Planet,' cities can refer to the Planetary Health Diet for guidance. Many countries have updated their national guidelines to reflect both sustainability and health considerations. However, since these updates are often found in background documents rather than consumer-facing material, cities can play a crucial role in delivering this message to the public. By leveraging these guidelines, cities can inform the design and implementation of initiatives aimed at promoting healthier, more sustainable dietary choices among residents.

3. Promote Innovative Approaches to Nutrition, Food and Health Education

Cities should continue to explore and implement innovative methods to support citizens in making healthier, sustainable food choices. This includes developing holistic approaches to school menus and leveraging educational resources to encourage positive food behaviours among students and the wider community. Additionally, cities can use engaging public campaigns, cooking classes and community growing projects to foster greater awareness and participation in discussions about nutrition and sustainable diets. Key to evolution of food programmes is monitoring and evaluation, which allows cities to access the effectiveness of their initiatives, identify areas for improvement and make informed decisions for future policy development and implementation.

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Climate (and Procurement) Crosscutting Manager Reflections

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PROCUREMENT INSIGHTS: ECONOMIC BENEFITS AND CITY APPROACHES TO CIRCULAR FOOD SYSTEMS

Public food procurement (PFP) offers numerous benefits, positioning it as a strategic tool for transforming food systems to reinforce food policy objectives, targets and ambitions at various governmental levels, including local, regional, national, and EU.¹ A key characteristic of PFP is its potential to impact multiple components of the food system. Given the significant demand for food within the public sector, PFP initiatives can shape both consumption and production patterns eventually delivering social, economic and environmental benefits thus enabling food systems for a healthy planet.²

More specifically, implementing sustainability criteria in food procurement can effectively address pressing issues regarding the environment, climate and health, creating meals that are nutritious, organic and climate friendly. Key considerations include criteria prioritising organic food, seasonal and diverse fruits and vegetables, plantbased options, less food waste as well as aspects related to packaging and delivery conditions like delivery date, delivery process and delivery period. Additional considerations might include sourcing local products, ensuring fair trade and ethical sourcing, minimising water and energy use, adopting sustainable fishing practices and promoting educational initiatives. By including these factors, the procurement process supports the transition to healthier, organic and climatefriendly meals, ensuring the best combination of price and quality.³

Since 2001, the city of Copenhagen has prioritized the efforts to strengthen food and meals, setting an ambitious target to reach 90 percent organic food in public meals. Focusing on organic food products offers a comprehensive approach to sustainability. Public purchases of organic food help preserve biodiversity. protect groundwater from pesticide contamination, reduce soil erosion, and enhance animal welfare.⁴ Moreover, studies commissioned by the Danish Veterinary and Food Administration showing that under the organic conversion in Denmark, kitchens reduced food production waste by 88 percent and serving plate waste by 26-50 percent.^{5,6} Additionally, nutritional improvements are achieved as kitchens that use organic food develop menus more aligned to national dietary guidelines, incorporating more fruits and vegetables and less meat.⁷

A report from the Department of Food and Resource Economics at the University of Copenhagen estimated significant economic benefits, including savings on healthcare costs, when meals align with the Danish Dietary Guidelines for health and climate. This approach, exemplified by Copenhagen, supports the implementation of the Official Danish Dietary Guidelines alongside sustainable procurement practices. Depending on the model used to assess health costs, converting

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meals to healthier, organic and climate-friendly options is estimated to yield annual benefits between 1.3 and 2 billion euros in Denmark, equating to 300-460 euros per person annually.^{8,9} The Danish Ministry of Food, Agriculture and Fisheries has highlighted socio-economic benefits from this shift, including a reduced risk of serious health problems such as cardiovascular disease, type 2 diabetes and cancer.¹⁰

Achieving a successful transition to healthier, organic and climate-friendly meals can be accomplished without increasing purchasing costs through strategic sustainable public procurement. This approach integrates awareness-raising and capacity-building initiatives, collaboration across the value chain and active engagement of kitchen staff. Although organic food, particularly meat and dairy products, can be more expensive, budgets can be managed effectively through menu adjustments and recipe modifications such as reducing meat consumption, increasing plant-based options, cooking from scratch and minimising food waste.¹¹

In Copenhagen, covering the organic price premium was achieved by reducing waste, sourcing seasonal foods and promoting a plant-rich diet with less meat. Supporting this transition requires investment in the culinary workforce and food education to ensure that culinary teams are equipped with the necessary skills and knowledge to prepare climate-friendly, delicious and nutritionally balanced meals using predominantly plantbased and organic ingredients.¹² Moreover, Copenhagen's transition to healthier, organic and climate-friendly meals has yielded significant climate benefits. As part of their 2019 food strategy, the city of Copenhagen set an ambitious goal to achieve a 25 percent carbon reduction by 2025. As of 2023, Copenhagen has already reduced the climate impact of their food procurement by 25%, reaching their target more than a year ahead of schedule. These results demonstrate that adopting sustainable changes in public food procurement tender documents and processes can significantly steer the food system towards sustainability.¹³



FINDINGS AND LESSONS LEARNT

Bordeaux and Copenhagen have emphasised 'climate and procurement' as a primary focus of their pilot activities. Bordeaux concentrates on sustainable procurement in public canteens, organising workshops to connect purchasers with producers and promoting sustainable diets through teaching plant-based recipe preparation. Copenhagen, building on its success in organic conversion, showcases how public food procurement can promote climate-friendly, plant-based menus in public institutions, align with new climate policies and support national dietary guidelines. Key initiatives include the creation of procurement guidelines, integrating citizen engagement and education in food tenders and establishing direct communication with over 1,000 kitchens for effective monitoring and evaluation.

Even cities that did not initially prioritise the 'climate and procurement' pillar have established and implemented sustainable procurement practices throughout the Food Trails project; and notably, by the end of the food trails project, 8 cities have emphasised this pillar as a focus area. The CCM found that procurement plays a crucial role as a link between all pillars, fostering stakeholder engagement in healthier, climate-friendly public sector meals, and serving as a vital tool for implementing sustainable food policies and goals.

The CCM encourages cities to evaluate tenders not only based on price but also on sustainability, nutrition,

circularity and innovation. By doing so, cities can fully leverage public food procurement to promote sustainable, healthy, and climate-friendly food systems. Recognising the power of public procurement as a lever for initiating transformative change and leading by example, the CCM emphasises the necessity and benefits of cooperation across sectors and pillars to promote and support healthy and sustainable food systems. No single pillar can stand alone; each relies on the support and integration of others.

Based on the visits to the eleven Food Trails cities, here are the key lessons learned regarding procurement are:

The vital role of procurement in advancing healthy, sustainable, and climate-friendly food systems, as well as in enforcing sustainable food policies, is often unrecognised by cities including those working on food policy and procurement officers.

It is important to acknowledge that those responsible for developing and implementing food policy are often unaware of the power of procurement in driving both climate and food strategy. This is why the CCM focused on raising awareness of the role of procurement and on influencing, engaging and initiating discussions with procurement officers. By educating stakeholders on the significant impact procurement can have on promoting

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'Food Systems Supporting a Healthy Planet', the CCM aimed to empower decision-makers to prioritise and integrate sustainable procurement practices into their policies and initiatives. Through workshops, training sessions and collaborative discussions, the CCM provided valuable insights and tools to enable food policymakers to leverage procurement effectively as a strategic lever for positive change. In doing so, the CCM contributed to building capacity and fostering a culture of sustainability within food policy decision-making processes.

It can be challenging for cities to engage and maintain political support for sustainable procurement.

Engaging and maintaining political support for sustainable procurement can be challenging for cities. However, procurement is a powerful tool for promoting political goals and advancing climate ambitions. Therefore, climate-friendly sustainable procurement practices and strategies are most effective when there is active engagement at the political level and even more so when supported at the EU level. By actively involving political stakeholders, cities can also foster better collaboration between stakeholders, further enhancing the effectiveness of sustainable procurement efforts. This collaboration is especially crucial for responding to sceptics and naysayers, highlighting the need for both political and wider stakeholder support in driving sustainable procurement initiatives forward. Cooperation across disciplines, sectors, administrations, and departments is crucial when constructing and implementing sustainable food procurement practices and tenders.

Collaboration across departments and disciplines is crucial in the procurement process to support and realise various food policy criteria including sustainability standards and nutritional guidelines. Involving individuals and experts from different departments and disciplines brings diverse perspectives, enhancing the quality and effectiveness of public food procurement and tenders. This collaborative approach contributes to the development of a more sustainable and resilient food system.

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PROCUREMENT: RECOMMENDATIONS FOR MOVING BEYOND THE FOOD TRAILS PILOT

1. Recognise the existing position, challenges and capacities of cities/municipalities and procurement officers and meet them where they are.

To initiate sustainable changes in procurement and implement practices that foster sustainable and healthy food systems, it is essential to recognise and appreciate the current positions, challenges and capacities of municipalities and procurement officers. Cities and procurement officers should be engaged at their current capabilities, identifying feasible starting points for integrating sustainability into procurement processes. By acknowledging these existing challenges and capacities and providing realistic and achievable steps towards sustainability, cities can create a more inclusive and effective path to transforming the public food procurement system. This approach respects and acknowledges the unique context of each municipality, allowing for the building of a foundation and capacity for sustainable improvements. By meeting procurement officers where they are, it is possible to harness their unique roles in transforming food systems and foster a culture of sustainability within food policy decisionmaking.

2. Engage political support for sustainable procurement.

To foster and drive resilient, sustainable food systems, it is essential to engage and maintain political support. This can be achieved through either a top-down or a bottomup approach. Through political backing, cities can leverage procurement as a powerful tool to implement food policies and achieve political goals that promote sustainability. This signals political ambitions regarding the future direction of the food system, incentivising supply chain actors to align their values and practices, accordingly, thus fostering a transition towards sustainable food production and consumption.

In the absence of political support, the Sustainable Development Goals (SDGs) provide an opportunity for securing it. By incorporating these goals into procurement practices, cities can demonstrate to local politicians how procurement can help achieve broader political objectives and ambitions. This encourages decision-makers to prioritise and integrate sustainable procurement practices into their policies and initiatives. Small changes written into public food procurement tender documents by municipalities may be the decisive factor steering the food system in a more sustainable direction. By integrating criteria that prioritise climatefriendly and nutritious food choices, municipalities can significantly shift primary production both locally and globally, advancing food systems that support a healthy planet.



To achieve this, the following areas should be considered when doing a procurement:

- 'Best value' as criteria
- Market dialogue
- $\cdot\,$ Seasonality and diversity
- Logistics
- Organic produce
- Packaging material
- Educational material to support learning and understanding of food systems.
- Economic impact
- Contract management and data control
- 3. Encourage interdisciplinary collaboration across departments and sectors.

Effective cooperation across sectors, disciplines, administrations and departments is crucial for sustainable food procurement. Encouraging involvement and cooperation among procurement officers, nutritionists, food policy officers and other stakeholders ensures that the procurement process meets sustainability standards and nutrition guidelines. Such a collaborative approach may lengthen the procurement process compared to working in isolation, but it is essential for achieving lasting impact. Therefore, procurement officers must be patient and embrace this process, recognising that meaningful change takes time.

Engaging in effective market dialogue, building networks and fostering cross-disciplinary involvement enhances the procurement process and supports comprehensive implementation of sustainable food policies. This collaborative effort strengthens tenders, improves the quality of public food procurement and facilitates the transition to a more sustainable and resilient food system.

Facilitating this cooperation should be overseen by dedicated food policy officers or procurement experts, depending on the city's structure. The key is to ensure that the facilitator of this cooperation is deeply committed to food and procurement sustainability. This dedicated role guarantees consistent and effective collaboration among all stakeholders, thereby driving the success of sustainable food procurement initiatives.

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Climate

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Suggestions

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Intro

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CIRCULARITY INSIGHTS: ECONOMIC BENEFITS AND CITY APPROACHES TO CIRCULAR FOOD SYSTEMS

"In its essence, the circular economy is about how things can be made smarter, cheaper and more resource efficient."¹

Introducing circularity in city food systems can be beneficial not only at the environmental and social level, but economic too. Overall, circular innovation can help boost competitiveness, retain precious resources, diversify production, employ local workers in the recollection and measurement of given resources and reduce new materials sourcing costs. In the food system, for example, brewed coffee grounds can be recollected to grow mushrooms, raw food waste becomes compost for agriculture, farmed animal and human excreta are used as fertiliser before they transform into polluting ammonia, or farmed fish excreta nourish aquaponics plants without needing added chemicals.

How can we measure the economic benefits of such interventions? There is no unique answer to this question, the economic advantages of a circular economy compared to a linear one at the city level can be expressed in:

- 1. Avoided waste management costs
- 2. Avoided cost of raw produce supply by repurposing waste
- 3. Extra revenue streams from previously so-called externalities
- 4. Local quality jobs created

Public and private food businesses can be incentivised by municipalities to donate their surplus food to organisations that collect and repurpose it, often through waste tax reduction policies in exchange for documented donations. Milan is pioneering this approach with its network of distributed food surplus collection hubs. Usually, working with partners for waste repurposing requires additional paperwork effort and limited human labour, to properly sort waste according to its destination, and coordinate with partners for recollection and logistics. It is paramount that cities facilitate this exchange, bureaucratically and economically.

In fact, at the city level, repurposing waste contributes to reducing the procurement costs of virgin resources. For instance, when edible surplus food is donated, less money needs to be spent on groceries for those in need. Similarly, transforming inedible food waste into compost helps municipalities save on fertilizers derived from fossil fuels. Additionally, repurposing farmed animal excreta helps prevent soil and air pollution. In the context of longterm costs, reducing all food and agricultural waste helps prevent methane pollution, one of the most potent greenhouse gases.
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Project Drawdown has found that 'reducing food loss and waste is one of the largest climate solutions across all sectors, not just in the food system. Plus, it could provide additional benefits to land, water and biodiversity while also improving food availability and food security worldwide.¹² This means that circular economy solutions in the food system will be further incentivised within the framework of the EU Green Deal.

Turning externalities and waste into new resources enhances the efficiency of the entire value chain. Examples include using coffee waste for growing mushrooms or making cosmetics, agricultural waste for textiles or construction materials, and stale bread for brewing beer. This approach benefits waste management organisations by reducing operational volumes and costs, while businesses receiving these resources cut procurement expenses. Donor businesses also benefit by reducing waste management costs. Involving social districts amplifies these benefits. Municipalities can achieve greater results with similar human resources investments. For example, in Funchal, communities in need are learning climate-friendly and circular skills such as food waste composting for gardening and land regeneration.

In terms of the job market, two significant global employment assessments on the circular transition were conducted by the ILO (International Labour Organisation) between 2018 and 2019, later updated by the OECD (Organisation for Economic Co-operation and Development) in 2020. These studies project that a global shift towards a circular economy could create a net total of 7 to 8 million new jobs by 2030.³ However, 84% of current studies on jobs in the circular economy focus on northern countries, highlighting a critical need for quality job creation, improved working conditions, and fair wages in the global South.

The EU market stands to benefit significantly from this transition, bolstered by strong policy frameworks. It is projected that by moving towards a circular economy, the EU's GDP could increase by nearly 0.5% by 2030 compared to the baseline scenario, with approximately 700,000 net new jobs anticipated.⁴ However, the benefits of this shift are expected to vary across European regions, impacting most notably those regions with high concentrations of industrial employment.⁵

In the agriculture and food sectors, a shift towards circular practices is poised to bring significant benefits. For instance, practices such as regenerating fertilizers from food and agricultural waste, optimizing logistical efforts, and promoting localized and diversified plantbased food production are expected to generate additional job opportunities within and near urban areas, thereby contributing positively to local economies.⁶

As highlighted in the recommendations section, it is crucial for cities and countries to adopt frameworks that measure metrics associated with the circular economy. These metrics include reductions in greenhouse gas emissions, avoided logistics miles, reduced extraction of raw materials, and spared water or land use. While the economic benefits may not be immediately significant, over time, public administrations can ideally compare



lower environmental impacts with reduced procurement costs and improved human health outcomes. These positive economic metrics stemming from circular

practices in the food sector are expected to drive political commitment and stimulate further financial investments in new circular initiatives. This perspective aligns with the goals of achieving climate neutrality, delaying local and global resource overshoot⁷, and advancing towards the Sustainable Development Goals (SDGs) by 2030.





FINDINGS AND LESSONS LEARNT

The cities of Grenoble, Birmingham, Milan and Warsaw initially launched the Food Trails project with a primary focus on circularity. Meanwhile, Tirana, Groningen and Bordeaux identified circularity as a secondary co-benefit. As the project progressed, and priorities evolved through the development of their Living Labs, Milan, Warsaw, Grenoble, Tirana, Birmingham and Thessaloniki chose to retain circularity as a central driver of their food policy strategies by the project's conclusion. Specifically, Thessaloniki decided to incorporate circularity considerations after aligning with regional waste management directives and EU requirements on food waste recovery. The city of Groningen has shifted its focus towards Innovation. Birmingham and Bordeaux eventually prioritised Sustainable Food Systems for a Healthy Planet.

The cities that focused their work on the circularity pillar have been involved in actions to measure food surplus and waste generated across different stages of the supply chain in both private and public sectors, according to their respective jurisdictions. They have also worked on repurposing food surplus through food banks and converting food waste into energy and compost. During visits, the CCM specialising in Circularity led a presentation and workshop covering the following topics in the following order:

- 1. What is circularity, beyond repurposing and recycling
- 2. How to measure food surplus and waste in city food systems
- 3. The systemic perspective to address the lack of circularity in city planning
- 4. The opportunities in making food systems circular
- 5. Engaging stakeholders and partners in making the food system more circular

Based on the visits to the eleven Food Trails cities, here are the key lessons learned regarding circularity are:

Most cities lack a comprehensive overview of food surplus and waste streams due to insufficient supporting data.

Cities and businesses generally have comprehensive data on procurement, human resources, production volumes and sales. Waste remains one of the streams that is currently less monitored in city economies, and without data there is little opportunity to introduce effective circular policies.

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Food policy officers need to collaborate with other city departments to manage food waste streams and identify opportunities for reduction.

Food policy initiatives often stem from departments like waste management, environmental services or social services, depending on the city. These departments typically prioritise either environmental or social aspects, often without fully integrating co-benefits. However, achieving circularity requires maintaining strong links with other municipal departments. Without such integration, there's a risk that the focus remains solely on food waste recovery. To achieve genuine circularity, a broader systemic approach is essential.

Food policy officers need to engage stakeholders across the food value chain to spot opportunities to make the food system more circular.

The city of Thessaloniki has established a roundtable to discuss circular measures across its food chain, involving representatives from the regional waste management administration, organic farmers, hotel managers, academia, research institutions, local markets and NGOs. Similarly, Warsaw has adopted a parallel approach by engaging a design university to conduct field research, including interviews and stakeholder engagement, to investigate the causes of food waste in the city. In both cases, city officials have gained a comprehensive understanding, learned from key stakeholders about the root causes of food waste and effective solutions, and prioritised interventions based on a holistic assessment.



Image: rescued food surplus recipes in Grenoble

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CIRCULARITY: RECOMMENDATIONS FOR MOVING BEYOND THE FOOD TRAILS PILOT

The main recommendation is to expand the concept of circularity to encompass the whole food value chain, and its ripple effects on local environment and society. Solutions to curb food waste are generally focused on efficiency, but at a more mature stage, acting on prevention, redesign of specific processes, and rethinking of partnerships would be more effective strategies.

The underlying concept should be that waste is nothing but an excess of a resource that hasn't found a purpose yet, and any byproduct or externality at any stage of the food supply chain (production, transformation, distribution, consumption) should be taken into account and find a purpose beyond ending up in the landfill or being dispersed in the environment.

1. Run a comprehensive assessment of food losses, surplus and waste across the whole food supply chain

The most immediate action cities can take is to collect data on food surplus is from canteens and supermarkets, as this food can be repurposed for direct human consumption. Beyond this, there is a wide range of other waste types that can be prevented or repurposed. For example, agricultural waste—which often doesn't appear in statistics and is largely ignored—includes inedible parts of vegetable and cereal plants, fruit shells, manure and urine from farming, wastewater, chemicals, and more.

To conduct a comprehensive assessment, it is crucial to establish key partnerships with proactive actors in the local food value chain. The municipality should act as a connector, aggregator and facilitator in this process.

2. Use the circularity assessment as a baseline against which to measure all future improvements

Once enough data is available the municipality can prioritise the most pressing issues, working together with the competent municipality departments and key local stakeholders. The municipality can decide to work in 'sprints' to optimise resources: focusing their efforts initially on investigating a segment of the food value chain, improving it, and then tackling another segment and so on. It is important that improvements are recorded against the baseline scenario, and that the data and the case studies are shared for replication.

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3. Translate circularity goals into climate goals to showcase your results to citizens, partners and potential investors

The only way circularity can gain ground in a linear economy is by proving its effectiveness in terms of environmental, economic, and social gains. If circular pilots in the city food system can be translated in measurable metrics - such as GHG emissions saved, logistic miles avoided, extraction of raw materials avoided, water or land saved, and so on - then more stakeholders, funding, citizens interest and political commitment can be drawn to the cause.

Ensure transparent communication channels between policymakers and the community by providing regular updates on policy developments, soliciting input and feedback, and involving the community in implementation and evaluation processes. Offer clear, easily understandable information in various languages and formats to facilitate inclusive participation and informed decision-making among all community members. Utilize platforms like social media to effectively engage citizens and expand outreach efforts.

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 7.
Innovation (and Communities) Crosscutting Manager Reflections

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Image: school garden project in Funchal

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COMMUNITIES INSIGHTS: ECONOMIC BENEFITS AND CITY APPROACHES TO CIRCULAR FOOD SYSTEMS

Cities have the potential to develop comprehensive food policy composed of different strategies that will ensure safe, healthy, sustainable and nutritious food for their citizens. However, for this urban transformation to be made possible, there is one point that cannot be overlooked: local communities and citizens must be involved in co-creating the policies that will affect them. Crucially, the active involvement of communities and citizens in the policymaking process is essential to ensure the efficacy and durability of these strategies. This inclusive approach not only promotes innovation but also ensures the involvement of communities in the development of food strategies that meet their needs.

However, these processes often emphasise their social benefits, overshadowing the fact that involving communities and citizens in the policymaking process can also lead to significant economic benefits. Engaged communities are more likely to support local businesses and initiatives, fostering economic resilience and stability. Sustainable procurement policies and local initiatives such as farmers' markets can create new economic opportunities for sustainable and small-scale producers, leading to job creation and increased local revenue. Furthermore, when communities are involved in shaping policies that will affect them, they are more likely to invest in and support sustainable practices, leading to longterm economic sustainability and growth.

In fact, according to the World Bank,¹ meaningful forms of citizen engagement can result in better governance, citizen empowerment, strengthened public service delivery, and ultimately enhance development effectiveness and well-being. Especially in recent years, as policymaking alone has not been able to find adequate solutions to pressing problems such as climate change, health emergencies, growing inequality, and conflicts – all which impact food systems – governments, civil society organisations, and citizens have been urged to rethink how to engage in dialogue.

The World Economic Forum² suggests that 'engaging citizens can improve the delivery and quality of public services, enhance the management of public finances, and bring about greater transparency, accountability and social inclusion, resulting in tangible improvements in people's lives'. According to this organisation, citizen engagement broadens the dialogue and include the views and perspectives of traditionally marginalised groups, helping to enhance and strengthen consensus for important reforms and providing the political support and public ownership to sustain them. Additionally, the engagement of communities signifies a cultural change, as local communities drive the development process that shapes their lives.

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The example of Bordeaux highlights how participatory processes can ensure healthy, local food for its citizens while fostering local agricultural production and short supply chains, creating a win-win strategy for all stakeholders and yielding economic benefits. Bordeaux Metropole faced the challenge of achieving only two weeks of food autonomy per year despite having substantial agricultural land and farms. As part of the Food Trails Project, they launched an innovative policymaking process involving 300 local food system stakeholders, including small-scale farmers, in the Food Policy Council to develop new food policies. With stakeholder support, the Metropole prioritised sustainable public food procurement to foster local agriculture. Responsible for providing 65,000 meals daily across 260 sites, Bordeaux Metropole facilitated connections between local organic producers and canteens through organised meetings and training sessions, enabling farmers to respond to procurement tenders effectively.

In this case, community engagement with local farmers through a participatory process fostered collaboration, empowerment and mutual trust, leading to the development of a local solution to a local problem. This approach not only generated economic benefits for local producers, thereby boosting the local economy, but also provided farmers with reliable, large-scale buyers such as school canteens. Bordeaux Metropole serves as an exemplary case of how engaging communities can deliver not only social benefits but also substantial economic value.³ According to the report Europe's sustainability transitions outlook⁴ from the European Environment Agency, 'effective engagement at regional and local levels during the transition to sustainability is paramount, as such a transformation is experienced at the local level and is inherently place-based'. Therefore, it is essential to mobilise citizens and foster grassroots change. The same report states, 'sustainability governance should aim to empower local initiatives and be open to flexible, contextsensitive solutions'.



FINDINGS AND LESSONS LEARNT

In the Food Trails Project, three cities – Funchal, Groningen, and Warsaw – emphasise Innovation and Empowerment of Communities as the primary focus of their pilot activities, while Copenhagen and Bordeaux identified this pillar as a co-benefit.

Although this co-benefit was prioritised by these five cities, all Food Trails cities incorporated initiatives related to this co-benefit into their pilot activities in various ways.

Funchal launched an integrated food strategy called SEMEAR (meaning 'to sow') to coordinate various foodrelated initiatives carried out by the municipality. These activities include educational programmes to promote healthier and more sustainable lifestyles, food literacy campaigns in social housing districts to prevent food waste and encourage circularity, and efforts to empower residents to make more informed food choices. Notably, the primary outcome of the Food Trails project is the unification of these initiatives under the SEMEAR Food Strategy co-designed with local stakeholders and citizens through a bottom-up engagement approach.

Groningen has an existing food policy, now being partially implemented through the Food Trails activities. The city aims to enhance access to healthy, local food for everyone, with a strong emphasis on residents in poorer neighbourhoods. To further involve vulnerable groups in city activities, one of the municipality's key initiatives, the living lab project 'Tuin in de Stad / Growing Food in the City,' places a significant focus on community engagement through food gardens and food-related activities.

The city of Warsaw together with SWPS University of Social Sciences and Humanities established the Warsaw Food Lab. This initiative aims to unite local authorities, business, academic sectors, NGOs and citizens to cocreate innovative solutions for a sustainable food transformation. The Warsaw Food Lab was designed to function as a cooperative platform for food innovation, based on a multi-stakeholder governance structure.

Additionally, two cities – Copenhagen and Bordeaux – emphasised the importance of innovation and empowerment of communities in their pilot activities as their co-benefit.

Copenhagen primarily focused on climate and procurement through two main activities: aligning procurement policies for a sustainable food system and educating students on sustainable farming, notably the 'Potato Kit'. Additionally, the city emphasised innovation and community empowerment by launching a pilot project to promote co-innovation in procurement and canteen kitchen practices. (n)



Bordeaux focused primarily on climate and procurement, but also values innovation and community empowerment as key co-benefits. This is especially evident in the Living Lab initiative aimed at enhancing the Food Policy Council. Bordeaux developed a comprehensive food policy involving diverse stakeholders and implemented various initiatives to engage citizens.

The cities that focused on innovation and empowerment of communities have been involved in actions to promote the involvement of all relevant stakeholders in their pilots, especially vulnerable communities (low-income communities, newly arrived migrants, people with mental health problems, among others) and to foster participatory processes to ensure citizens' engagement in the food-related activities and strategy.

During visits, the CCM specialising in Innovation and Empowerment of Communities led a presentation and workshop covering the following topics in order:

- 1. A presentation explaining the importance of involving and engaging different communities and strategies to foster innovation.
- 2. An ideation session with the city to understand:
 - a. Whether the city has a Food Policy Council.
 - b. Who the vulnerable communities in the city are and how they are involved in the food policymaking process.
 - c. How the city stimulates participatory processes with citizens.

- 3. An exploration of additional possibilities to foster innovation and the empowerment of communities, especially the most vulnerable.
- 4. Recommendations based on the insights gathered from the brainstorming session.

Based on the visits to the eleven Food Trails cities, here are the key lessons learned regarding community innovation and empowerment are:

Most cities reported that involving all relevant stakeholders, including citizens and vulnerable communities, in the policy making process, is a challenge.

Involving all relevant stakeholders is a challenge for most cities, as most do not have a governance structure such as a Food Policy Council that ensures regular meetings with citizens and community.

However, cities that managed to involve most of the stakeholders reported benefits. Thessaloniki and Bordeaux both have Food Policy Councils that meet regularly. Funchal emphasised that having communities and citizens onboard is key to ensuring a diverse approach to the city's food system. Bordeaux also noted the importance of building trust with all stakeholders over time, acknowledging that this process requires patience.

As an example, Grenoble Metropole, organises a yearly event called 'The Month of Food Transition' with a theme

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that changes every year. All the activities during the event result from a participatory process facilitated by the municipality which provides the physical space for the discussion group and some financial support for activities aligned with the municipalities goals. After the event, all participants receive a feedback survey to evaluate the activities, and adjustments are made based on the feedback for the following year.

The lesson learned is that the involvement of citizens and communities needs to be actively fostered and developed by the municipality, as it rarely happens spontaneously. Additionally, it is crucial to have a structured body that ensures regular meetings with citizens and the community.

Most cities reported having open communication channels with citizens.

Cities often utilise various communication channels like apps, institutional emails, in-person meetings in municipal offices or in the community and online platforms to engage with citizens. However, there is a need for cities to enhance communication about their projects and activities to ensure citizens are wellinformed about municipal efforts. When citizens are knowledgeable about these initiatives, they are more likely to participate in municipal activities and contribute to the policy-making process.

Bordeaux Metropole has established a dedicated department with two personnel and web pages

dedicated to citizen participation. This initiative allows residents to share their opinions on future or ongoing projects. In addition to gathering feedback through the website, the department organises topic-specific focus groups to support project teams. The team prioritizes using simple language, clarifying undecided aspects, and providing alternatives. Each consultation concludes with a detailed report outlining the feedback received and how it will inform decision-making.

There remains a lack of political commitment to implementing a comprehensive Food Policy.

Food is still not perceived as a priority compared to critical issues for municipalities such as health, housing, social care, employment and education. Consequently, cooperation among different departments within municipalities often falls short. To tackle this challenge effectively, it is essential to engage stakeholders from various departments to establish connections between their areas of focus and the broader food strategy.

Involving multiple departments serves not only to raise awareness but also to integrate food considerations across diverse municipal initiatives. This approach fosters a systemic understanding of the importance of sustainable food systems and the development of a comprehensive Food Strategy. By aligning their interests with food policy objectives, municipalities can enhance political commitment and effectiveness in addressing food-related challenges.

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The Municipality of Funchal, for example, developed its Food Strategy, SEMEAR, by engaging a diverse group of stakeholders, including associations, and both private and public companies (28 institutions in total). These stakeholders participated in working groups to provide valuable feedback and perspectives from various food sectors within the city. Besides the involvement of different stakeholders for initial feedback, the Food Strategy was also built around 5 strategic axes: education, sustainability, inclusion, local production and networking, ensuring the involvement and commitment of different municipality departments. This collaborative and participatory approach is key to ensuring the sustainability of the strategy itself.

Farmers are a key community to foster food systems transformation, and municipalities can serve as a pivotal hub for involving them in the decision-making processes.

Cities should not overlook a crucial community to ensure healthy, sustainable and nutritious food for their citizens: farmers and food artisans. However, farmers, particularly small-scale farmers, and food artisans are very rarely part of the decision-making process, leading to a lack of control of the policies that directly affect their livelihoods. Municipalities can fill this gap by acting as pivotal hubs for involving farmers in policy discussions and the design and development of food policies, guaranteeing their voices are acknowledged. As part of the Food Trails Project, Bordeaux Metropole launched an innovative policy making process involving 300 local food systems stakeholders, including small scale farmers, in their Food Policy Council. This initiative aimed to develop a new food policy for sustainable public procurement.

The Metropole, responsible for providing 65,000 meals daily across 260 sites, had previously been unable to source food from local farmers for its canteens. To address this issue, the city facilitated connections between local organic producers and the canteens through organized meetings and training sessions, enabling farmers to respond to procurement tenders effectively. This effort led to local farmers being able to meet the canteens needs.

The example of Bordeaux Metropole highlights how municipalities can actively engage local farming communities in their policy making process, leading to benefits for both.

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INNOVATION: RECOMMENDATIONS FOR MOVING BEYOND THE FOOD TRAILS PILOT

1. Foster inclusive decision-making through the establishment and utilisation of Food Policy Councils or other open dialogue platforms

Ensure that decision-making processes related to food policies innovate by involving diverse stakeholders, including community members, local organisations, farmers, business owners, citizens, marginalised groups (such as vulnerable citizens) and relevant government agencies. Platforms such as community forums, town hall meetings, participatory workshops and neighbourhood assemblies can facilitate open dialogue where all voices are not only heard but also actively considered. Food Councils can serve as innovative instruments for cocreating and implementing these participatory processes.

2. Promote participatory approaches to enhance citizen engagement in policy development

Encourage participatory approaches such as community meetings, workshops, surveys and consultations to gather input and involve citizens in shaping local policies that will affect them. This engagement helps identify local needs, challenges, and opportunities, ensuring that policies are responsive to the community's needs and interests. Establishing a dedicated city officer/department/team (potentially under the communications team) which is formally responsible for encouraging and managing the development of participatory processes within the city greatly facilitates their implementation and effectiveness.

3. Enhance open communication channels between policy makers and the community, ensuring accessibility for all

Ensure transparent communication channels between policymakers and the community by providing regular updates on policy developments, soliciting input and feedback, and involving the community in implementation and evaluation processes. Offer clear, easily understandable information in relevant languages and formats to facilitate inclusive participation and informed decision-making among all community members. Utilise platforms like social media to effectively engage citizens and expand outreach efforts.

4. Encourage strategic urban planning for local food a and market access

Encourage and facilitate strategic urban planning that incorporates local food production and supports food artisans within the metropolitan areas and surrounding rural towns (where applicable). Municipalities should also design urban spaces to accommodate farmers' markets

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within the city, ensuring a dedicated space for both farmers and food artisans, and facilitating citizens' access to local and healthy food.

If possible, cities should provide technical assistance, access to land and financial resources to promote local food production. This enhances food security, reduces food miles, and strengthens farmers communities' resilience. By investing in local food production and market access, cities can foster sustainable food systems that benefit both residents and the environment.

5. Support Small Enterprises aligned with the city's food strategy.

Encourage the development of Micro, Small, and Medium Enterprises (MSMEs) that contribute to the sustainability of local food systems. Provide resources and assistance to individuals or groups interested in starting food-related businesses such as farmers' markets, food cooperatives, community-supported agriculture (CSA) programmes and food processing enterprises. These initiatives not only stimulate economic growth but also enhance access to locally sourced food products, creating opportunities for those in low-income communities to access nutritious food.

By nurturing MSMEs, cities can foster a resilient local economy and promote sustainable practices within the food sector. This support aligns with broader objectives of improving food security, promoting environmental sustainability, and strengthening community ties through local economic activities.

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8. Aligning Recommendations with the Milan **Urban Food Policy Pact Indicator** Framework





CCM SUGGESTIONS TO EXPAND THE SCOPE OF THE MUFPP MONITORING FRAMEWORK

The Milan Urban Food Policy Pact (MUFPP) Monitoring Framework serves as a crucial tool for cities committed to fostering sustainable and resilient urban food systems.

By offering a standardised set of metrics and indicators. the framework enables cities to systematically assess their progress towards achieving key objectives related to food access, nutrition, production, distribution, waste management and governance. This approach allows cities to identify areas of strength, as well as opportunities for improvement, while providing guidance on key areas for action and intervention. Alignment with the MUFPP framework facilitates collaboration and knowledge exchange among cities globally, promoting shared learning and the adoption of best practices to address common food-related challenges. Overall, the MUFPP indicator framework empowers cities to develop evidence-based policies and strategies that support healthier, more sustainable and equitable food systems for urban populations.

The experience gathered by the Crosscutting Managers during Food Trails allows here for a critical review of the indicators originally proposed by the Milan Urban Food Policy Pact Monitoring Framework in 2015, in light of the improvements achieved by cities in food systems, and the progress in the public awareness and knowledge of topics such as protein transition, circularity, food system sustainability.

These suggestions by the Food Trails CCMs have been shared with **The Barcelona Challenge for Good Food and Climate (BCGFC)** to support the development of their advanced food systems analysis tool.

The BCGFC tool is a proposed set of complementary actions and indicators for cities who wish to advance their environmental policies related to urban food systems. It is important to note that this work will not change the official text of the MUFPP. Instead, it is an **advanced voluntary tool for cities and local authorities**.

The process of creating the tool included analysing core BCGFC and MUFPP documents, as well as relevant food system frameworks. These frameworks included the City Region Food System Resilience Framework, the City Region Food System Indicator Framework, the Sustainable Food Cities Report, the Hivos Urban Futures Theory of Change report, and the UN Sustainable Development Goal indicators.

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A CRITICAL REVIEW OF MUFPP INDICATORS FOR THE NUTRITION CO-BENEFIT

The first recommendation made by the CCM is to conduct a Nutrition Situational Analysis. This is an assessment of current nutritional status, dietary patterns and related factors within a specific population or community. It involves gathering and analysing data on various aspects such as food consumption patterns, nutrient intake, prevalence of malnutrition or diet-related diseases, food access and availability, socioeconomic factors influencing dietary choices and existing policy and programmatic interventions related to nutrition and public health.

The purpose of a nutrition situational analysis is to provide insights into the current state of nutrition within the population, identify key challenges and opportunities, and inform the development of targeted interventions and policies to improve nutritional outcomes and promote health and well-being. To start off, cities can work with partners to collect data related to indicators 7 – 14 of the indicator framework. The City of Birmingham produced a Nutrition Situational Analysis at the start of another project focused on tackling all forms of malnutrition. Most European cities should be able to access data on:

- Cost of a nutritious food basket at city/community level.
- Individual average daily consumption of meat.
- Number of adults with type II diabetes.
- Prevalence of overweight or obesity among adults and young children.
- Number of city-led or supported activities to promote sustainable diets.

The City of Birmingham worked with nutrition and health students to gather data on the cost of a nutritious food basket across various areas in the city. They accessed information on diabetes and overweight/obesity from Public Health and health partners. Additionally, they conducted food focus groups with local communities, mapped food deserts and continue to <u>monitor food</u> <u>insecurity</u>. Following Birmingham's example and using the MUFPP indicator framework, European cities can initiate a nutrition situational analysis. Through periodic review, cities can determine their focus areas and identify partners needed to source relevant data and evidence.

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A CRITICAL REVIEW OF MUFPP INDICATORS FOR THE CLIMATE (AND PROCUREMENT) CO-BENEFIT

Using the MUFPP Monitoring Framework is beneficial for identifying strengths and areas for improvement. The 'food governance' indicators are useful for assessing existing networks and connections that support procurement efforts and foster political engagement. Following Copenhagen's lead, cities can collaborate closely with various administrative bodies, departments, experts and local political leaders to ensure that green policies and political ambitions are reflected in procurement and tender materials. Additionally, effective monitoring and evaluation of these materials during implementation are key. Involving relevant experts is crucial for developing and implementing innovative, resilient and sustainable procurement practices.

Moreover, indicators under 'food supply and distribution' and 'food waste' help identify strengths and areas for improvement to incorporate efficient and sustainable procurement criteria. Cities can focus on aspects such as food waste reduction, seasonality, organic food, transportation and packaging materials in their procurement criteria to achieve ambitious sustainability goals.



Resources allocated



A CRITICAL REVIEW OF MUFPP INDICATORS FOR THE CIRCULARITY CO-BENEFIT

The Milan Urban Food Policy Pact Monitoring Framework defines 4 indicators and associated metrics under the category 6 'Food Waste' to assess food waste and its reduction in cities:

Indicator	Metrics
41. Total annual volume of food losses & waste	Tonnes or Kilograms of food waste
42. Annual number of events and campaigns aimed at decreasing food loss and waste	Annual number of events and campaigns
43. Presence of policies or regulations that address food waste prevention, recovery and redistribution	Number (and types) of policies and regulations; Number (and type) of information and communication mechanisms and target groups;

(human, financial) for each measure 44. Total annual volume of Tonnes or Kilograms of safe and putritious food

surplus food recovered and and nutrition redistributed for direct recovered and human consumption redistributed buman intal

Tonnes or Kilograms of safe and nutritious food recovered and redistributed for direct human intake

Indicator 41 is dedicated to assessment of the status quo, Indicator 42 to the education of citizens and stakeholders, Indicator 43 to policymaking to prevent and limit food waste, and Indicator 44 to food surplus recovery for direct human consumption.

It is important to note that these indicators were specifically designed to address food waste prevention and reduction, rather than the broader concept of value chain circularity. Consequently, the food waste indicators are not comprehensive in terms of assessing circularity. They can be expanded to include additional indicators to more fully evaluate the circularity of the food value chain.

The aim of this review is to expand the scope of MUFPP indicators in circularity, moving beyond food waste avoidance and recollection to the complete circularisation of the food system.

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Five main opportunities have been identified to expand the scope of the indicators related to circularity:

- 1. Expanding and diversifying the scope of the baseline assessment of Indicator 41 to include externalities along the entire food value chain, from production to surplus recollection (such as agricultural loss or packaging waste), can potentially bridge them with other industrial sectors through circular recovery. This indicator can be applied only to the phases of the value chain over which a given city has jurisdiction. For example, some cities own and lease agricultural land, others own cooking centres, while some focus solely on communication, regulation, and nudging. However, even when a city lacks direct decisionmaking power over food production or distribution, it can influence these areas through regulations, incentives, and policy-making, effectively achieving circularity results. For instance, a policy mandating the measurement and recollection of agricultural waste for all producers involved in the city's food procurement process can support the development of best practices among producers and suppliers.
- 2. There should be no generic food waste volume metric. Instead, the measurement of food waste, externalities, and surplus should be categorised by type (e.g., raw, cooked) and potential utilisation: human consumption, animal consumption, compost, energy, development of textiles, or other materials (e.g., agricultural waste).

- 3. Once a correct measurement of all city food flows is in place—potentially including both public and private ones a city should define an optimal threshold/proportion between food production and waste and surplus generated, as well as between food procurement and food waste. Based on these metrics, the city could issue new regulations, incentives, and nudging activities.
- 4. Land use conversion, land regeneration, shifts in climatefriendly food production, and emissions avoidance are direct consequences of implementing circularity measures in a city's food system. New indicators can be identified to measure the proportions of how much produce or substance is extracted, absorbed, and generated by the city. Land use and water consumption are primary measures for these indicators, while the regeneration timespan is another metric. These indicators can measure, for example, how much land is necessary to provide food for a city compared to how much land is needed to absorb the compost generated by food waste from meals served in the city (or just from the public food systems of the given city). The closer these two numbers are, the higher the level of circularity. Another indicator would measure the **frequency rate of food production** against the frequency of compost production (from food waste) to ensure alignment.
- 5. Finally, **it is important to highlight the connection between SDGs and MUFPP indicators**. Literature analysis shows that food surplus donations constitute 9% of all food surplus in general, and according to SDG 12.3 (Food Loss & Waste), this percentage should reach 50% by 2030. In Milan, the food waste hubs model achieves a threshold of 32%, which is a key indicator of the success of a specific action and should be highlighted.

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A CRITICAL REVIEW OF MUFPP INDICATORS FOR THE COMMUNITIES (AND INNOVATION) CO-BENEFIT

Using the MUFPP Monitoring Framework can be a crucial first step for cities aiming to monitor and enhance participatory processes, community engagement, and empowerment within their municipalities.

The indicators in the 'Food Governance' and 'Social and Economic Equity' categories are particularly useful for cities seeking to initiate efforts to involve citizens and communities in their food policy-making processes.

Under the 'Food Governance' category, the following indicators can help cities gather sufficient data to start building their food policies and strategies, foreseeing the involvement of citizens and communities:

 Indicator 1: Presence of an active municipal interdepartmental government body for advisory and decision making of food policies and programmes
Facilitate collaboration across city agencies and departments and seek alignment of policies and programmes that impact the food system across multiple sectors and administrative levels. Indicator 2: Presence of an active multi-stakeholder food policy and planning structure (e.g. food policy councils; food partnerships; food coalitions)

Enhance stakeholder participation at the city level through political dialogue, and if appropriate, appointment of a food policy advisor and/or development of a multistakeholder platform or food council, as well as through education and awareness raising.

 Indicator 3: Presence of a municipal urban food policy or strategy and/or action plans

Reviewing, harmonising, and strengthening municipal regulations related to the food system. Building strategic capacities will support the development of a more sustainable, healthy, and equitable food system that balances urban and rural interests.

In the 'Social Equity' category, the following indicators can help cities gather sufficient data to begin addressing the inclusion of marginalized individuals, supporting agricultural production, and fostering local food businesses:

 Indicator 22: Number of community-based food assets in the city

Promote networks and support grassroots activities that foster social inclusion and provide food to marginalised individuals.

 Indicator 26: Presence of municipal policies and regulations that allow and promote agriculture production and processing in the municipal area
Efforts are focused on ensuring secure access to land in urban and peri-urban areas to support sustainable food

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production (community gardens access to municipal land for local agricultural production).

 Indicator 40: Existence of support services for the informal food sector providing business planning, finance and development advice

Acknowledge the informal sector's contribution to urban food systems in terms of food supply, job creation, promotion of local diets, and environmental management. Provide appropriate support and training in areas such as food safety, sustainable diets, waste prevention, and management.

Cities can strengthen their food policy frameworks by implementing indicators that measure community involvement and empowerment. These metrics might include assessing the presence and impact of community-led initiatives promoting food sovereignty and resilience. Indicators tracking open communication channels with citizens and their efficiency, as well as those identifying vulnerable groups, can facilitate municipal inclusion efforts.

Additionally, cities could also track the level of participation in decision-making processes related to food policies, ensuring diverse voices are heard and considered. Furthermore, indicators could gauge the extent of local food procurement from communitysupported agriculture or direct farmer-to-consumer models, promoting sustainable practices and local economic development. By prioritising community engagement through these indicators, cities can strengthen their food systems while empowering residents to contribute to healthier, more equitable urban environments.



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 9.
Suggestions on Food 2030
Co-Benefits
Framework

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In an increasingly urbanised world—where over half the global population resides, a number expected to rise to 70% by 2050 according to the UN—cities face mounting challenges, many related to food. **Our current food system is failing to deliver healthy and sustainable food to individuals, contributing to problems like climate change, waste and economic inequality**. Cities can be part of the solution to tackle these problems by designing and implementing food policies that empower communities, make the farm-to-fork journey sustainable, promote zero-waste resource use and ensure people have healthy and sustainable diets.

Cities hold great power to enhance the regeneration of our food system, but they cannot do it alone. They require the structural and professional support of external experts, that focus on specific topics such as the Food 2030 Co-Benefits, to guide them in maintaining a holistic and systemic perspective.

To move beyond their pilots, **cities have been advised to adopt a range of strategies that leverage their unique potential as powerful agents of change** in transforming food systems towards sustainability and health. The **following key areas of focus were raised with all cities regardless of the focus of their pilots**. This influenced the evolution of their Living Labs and pilots and in some cases led to a **change in direction and focus**. Cities hold great power to enhance the regeneration of our food system, but they cannot do it alone.

They require the structural and professional support of external experts, that focus on specific topics such as the Food 2030 Co-Benefits, to guide them in maintaining a holistic and systemic perspective.



NUTRITION AND HEALTH

Cities must develop a nuanced understanding of their populations' nutritional needs to support healthier and more sustainable food choices. This requires comprehensive strategies to tackle malnutrition, promote plant-based diets and enhance food authenticity and traceability. It is crucial for cities to measure and address food insecurity, understanding its impact across different life stages, from childhood to elderly care. This includes working with various partners to ensure that nutritional needs are met effectively. Cities should explore policy levers that mitigate unhealthy food options and integrate nutrition goals with procurement and community engagement efforts. By doing so, they can create more resilient food systems that support both public health and environmental sustainability.



Public food procurement serves as a powerful and strategic tool which cities can leverage to drive sustainability within food systems, achieve climate goals and reinforce food policy objectives and ambitions at various governmental levels-including local, regional and national—supporting a healthy and sustainable planet. Sustainable procurement practices and strategies are most effective when there is active engagement at the political level, especially when supported at the EU level. With political support, cities can integrate sustainability into food policies, ensuring long-term commitment and alignment with broader political goals such as public health, environmental protection and climate ambitions. This signals political ambitions on future food system directions, incentivising supply chain actors to align their values and practices accordingly, fostering a transition toward sustainable food production and consumption.

Nutrition

Climate



CIRCULARITY AND WASTE REDUCTION

Cities can be more ambitious in tackling food waste from both the public and private sectors. When cities can't directly intervene with policies, they can do so with education and nudging practices. Beyond thinking of individual actions for reducing, repurposing and preventing waste, cities can start by mapping holistically all the linear food systems and redesigning them in a circular way. Mapping the flows of food and water that cities consume and impact, as well as those they produce and return, can help define a balance between inputs and outputs, guiding improvements toward full regeneration. Regeneration is a collective effort: food councils with all impacted stakeholders need to be established to keep all their issues and expertise into consideration.



COMMUNITY ENGAGEMENT AND INNOVATION

For urban food system transformation to be possible, local communities and citizens must be involved in policy-making design and co-create the policies that will affect them. Inclusive policy-making processes that engage multiple stakeholders promote innovation and empower communities. Although challenging at times, this collaborative approach allows for the creation of a food system that benefits both the city and its residents. Involving professionals and experts from different departments and disciplines and fostering collaboration across departments and among stakeholders brings diverse perspectives and fosters innovation. This collaborative approach is essential for driving meaningful and lasting change.

Participatory processes that a municipality can adopt include involving all relevant stakeholders on a specific matter before taking action, encouraging the development of Food Policy Councils, actively involving vulnerable communities by identifying local leaders who can bridge the gap between the city and these communities, creating open channels of communication with citizens and keeping them updated on ongoing projects, and collaborating with organizations, academia, and external experts to integrate available knowledge and facilitate



Nutrition

Climate

Circularity

Innovation

⁽ Conclusions)

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Intro



Suggestions

Image: afternoon cooking classes for kids in Copenhagen

The Crosscutting Managers (CCMs) have been instrumental in guiding cities through the complexities of urban food policy, **focusing on the four thematic priorities of Food 2030**: Nutrition for Sustainable and Healthy Diets, Food Systems Supporting a Healthy Planet, Circularity and Resource Efficiency, and Innovation and Empowering Communities. The CCMs' expertise has proven essential in addressing the multifaceted challenges of urban food systems and ensuring that cities can develop integrated, effective strategies.

Nutrition

Climate

Key Takeaways

- **1. Expertise and Guidance:** CCMs provide critical technical expertise that many municipalities lack, helping cities develop and implement comprehensive food policies aligned with Food 2030 priorities. This expertise is particularly crucial in navigating complex policy landscapes and ensuring effective communication across stakeholders.
- 2. Holistic Integration: By emphasising the interconnections between the four priorities, CCMs ensure that cities address all aspects of sustainability and resilience in their food policies. This holistic approach fosters synergy between nutrition, procurement, circularity and community engagement.

- **3. Empowering Communities:** CCMs encourage community engagement and empowerment, ensuring that food policies reflect local needs and foster inclusive, adaptive systems. This includes increasing access and opportunity for all residents, particularly vulnerable communities, through effective communication and collaborative processes.
- 4. Building Capacity: CCMs guide municipalities on how to build the technical and strategic capacities necessary for effective food policy development and implementation. This includes exploring policy levers to mitigate unhealthy food options and integrating nutrition goals with procurement practices and community engagement initiatives.
- **5. Driving Ambitious Agendas:** CCMs support cities in setting and pursuing ambitious goals for improved nutrition and sustainability. They excel at illustrating how various policy levers and strategies can work together to drive systemic change. By demonstrating the broader impact of different approaches, CCMs help municipalities understand how to scale their efforts and leverage multiple opportunities to promote healthier, more sustainable food systems across their communities.

Intro

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During the four years of the Food Trails project, cities, researchers, and CCMs have been working tirelessly to provide a holistic and integrated perspective of the food system. Crosscutting competencies can help cities achieve their objectives in greater detail and depth.

As cities continue to face evolving food system challenges, the role of CCMs will remain crucial. Their support enables cities to navigate complexities, foster collaboration and drive sustainable transformations.

Beyond technical expertise, it is crucial that crosscutting experts have **direct experience and an understanding of local municipalities and governments to ensure their recommendations are pragmatic**. This dual focus on expertise and practical experience will help cities scale up and implement comprehensive, effective food policies that benefit all citizens.

To conclude, we believe that there can be two take-aways that derive from the Food Trails CCMs experience:

- It is essential to develop a network of professionals with the technical expertise to support cities that are developing their food policies;
- 2. Cities with solid food policy experience are ready to welcome food policy officers that can handle the dimensions of circularity, climate, communities and nutrition.

As cities continue to face evolving food system challenges, the role of Crosscutting Managers will remain crucial.

Suggestions

This dual focus on expertise and practical experience will help cities scale up and implement comprehensive, effective food policies that benefit all citizens.

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DEEP DIVES FROM FOOD TRAILS CROSSCUTTING MANAGERS ON FOOD 2030 CO-BENEFITS



NUTRITION

Nourishing Change: Transforming Food Systems for Health, Equity and Nutrition

foodtrails.milanurbanfoodpolicyp act.org/nourishing-changetransforming-food-systems-forhealth-equity-and-nutrition



CIRCULARITY

A Systemic Analysis of Circularity in Food Systems, within Cities and Beyond

foodtrails.milanurbanfoodpolicyp act.org/exploring-urban-foodchallenges-with-food-trailscrosscutting-managers



COMMUNITIES

Innovative approaches cities can use to engage farmers in food system decisionmaking processes

foodtrails.milanurbanfoodpolicyp act.org/innovative-approachescities-can-use-to-engagefarmers-in-food-system-decisionmaking-processes/



CLIMATE

The transformative potential of public food procurement, supporting a sustainable food system and healthy planet

foodtrails.milanurbanfoodpolicyp act.org/the-transformativepotential-of-public-foodprocurement-supporting-asustainable-food-system-andhealthy-planet





Project Coordinator:



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