



# FOOD TRAILS

Deliverable 4.10

List of SMEs and startups  
involved with the Call for ideas

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# Executive Summary

Participation by the private sector is instrumental in sustaining and scaling food policy actions. Yet typically the process of forging such partnerships is beyond the comfort zone of urban policy makers. This deliverable presents a detailed exploration of the design, implementation and roll-out of the Call for Solutions and the extensive engagement of the 11 European cities involved in the Food Trails project. The focus is on facilitating a strong connection between Food Trails cities and the most pioneering European start-ups and SMEs, with the aim of strengthening the cities' pilots and cultivating more robust and sustainable food systems. It also provides an inventory of start-ups and small and medium-sized enterprises (SMEs) connected to 11 European cities through a pan-European Call for Solutions initiative.

The food policy activities of each city are intricately woven into a complex interplay of cultural, economic, political, social and environmental dynamics involving a wide range of stakeholders. This complexity makes the transformation towards of sustainable food systems a multifaceted and complicated endeavour. Based on this premise, the process of linking innovative companies and cities is based on a methodology that takes into account the specific needs of each participating city.

The methodology integrates a specific approach to open innovation with techniques from design thinking to identify critical areas of innovation for each city. Data was collected directly from the cities through extensive surveys and tailored one-to-one meetings, customized to each specific city. The objective of the activities was to establish a testbed supporting Living Labs on their paths towards innovating and sustaining their food policy actions by connecting with innovative players such as start-ups and SMEs. Cariplo Factory (CF) shared a method, derived from the analysis results, to enhance connections between needs and solutions within each Living Lab. This method involves creating an Open Innovation Flow, characterized by assessing city needs and initiating a dedicated "Call for Solutions" to identify exemplary cases of food system transformation led by SMEs/start-ups. These cases can be adopted by Living Labs not only during the project but also beyond.

In essence, this document provides a comprehensive overview of the Call for Solutions Sustainable Food Systems initiative within the Food Trails project. It delves into the complexities associated with urban food systems and the Living Labs of Cities, offering a detailed and comprehensive overview of these crucial aspects.

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## About Food Trails

[Food Trails](#) is a four-year (Oct 2020 / Oct 2024) €12.000 million project, funded by the EU Horizon 2020 Programme, addressing the call "Food 2030 – Empowering Cities as agent of food system transformation".

It aims to translate the worldwide [Milan Urban Food Policy Pact](#)'s shared vision and collective commitment to integrated urban food policies into measurable and long-term progress towards sustainable food systems in Europe.

At the heart of the project lies the co-designing and co-implementation of Pilot Actions, through participatory Living Labs, as a leverage point for the development of Urban Food Policies in 11 European city-regions: Bergamo (IT), Birmingham (UK), Bordeaux (FR), Copenhagen (DK), Funchal (PR), Grenoble (FR), Groningen (NL), Milan (IT), Thessaloniki (GR), Tirana (AL) and Warsaw (PL).

## About Cariplo Factory and Municipality of Milan

### Cariplo Factory

[Cariplo Factory](#) is an innovation hub that activates a talent chain that includes experiential training courses, entrepreneurial support programs, open innovation projects, Venture Capital investments and internationalization support activities. Its mission is to create opportunities for personal, entrepreneurial and industrial growth through discontinuous and inclusive innovation models.

In continuity with its institutional mission and in line with its corporate values, from 2020 Cariplo Factory has decided to adopt the status of Benefit Company, which means that in the exercise of its economic activity it aims to contribute to the common good, operating in a responsible and transparent manner so as to have a positive impact on people, communities, the environment, cultural heritage and civil society. Its activity is based on 4 main values:

- ✓ Innovation
- ✓ Inclusivity
- ✓ Responsibility
- ✓ Generativity

Within the Food Trails project, Cariplo Factory (CF) assumes the role of Task Leader for Task 4.6, titled 'Connecting FOOD TRAILS cities with SMEs and start-ups,' among its various responsibilities.

### The Municipality of Milan and the Milan Urban Food Policy Pact

The City of Milan launched its Food Policy in 2015, in partnership with Cariplo Foundation.

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Through its 5 priorities:

- ✓ to promote access to food and water for all
- ✓ to promote sustainable production
- ✓ to educate on food consumption
- ✓ to reduce food waste
- ✓ to promote research and innovation on agrifood system

it engages different actors: schools, universities, NGOs, cultural organizations, civil society's organizations, start-ups, farmers, public and private companies and much more towards the achievement of the objectives related to these priorities. The main activities of the Milan Food Policy are related to school canteens services and food waste recovery and distribution, as well as food aid and promotion of sustainable agriculture in Milan.

Launched by the Mayor of Milan as the legacy of Expo Milan 2015 "Feeding the Planet", the Milan Urban Food Policy Pact is a global joint cities declaration to promote Urban Food Policy. Milan Pact defines sustainable food systems as inclusive, resilient, safe, diverse and healthy and promote a set of 37 recommended actions to define food policies clustered in 6 categories:

1. GOVERNANCE
2. SUSTAINABLE DIETS AND NUTRITION
3. SOCIAL AND ECONOMIC EQUITY
4. FOOD PRODUCTION
5. FOOD SUPPLY AND DISTRIBUTION
6. FOOD WASTE

Worldwide cities are all working to change their food systems and make them healthier, fairer and more sustainable for all. Some numbers:

- **81** countries
- More than **270 cities that signed the Pact** – Rosario, London, Turin, Antananarivo, Copenhagen, Baltimore, New York, Mexico City, ...
- **More than 460** millions of inhabitants touched by the actions of the Pact
- **6 regions:** Europe, Africa, North and central America, Asia and Pacific, South America, Eurasia e South East Asia)
- Milan Pact Award: **621 practices sent in 7 years**

The work of the MUFPP consists in meetings, webinars, field visits, advocacy, networking, trainings and projects as Food Trails.

MUFPP have also involved FAO, the Italian agency for development cooperation, WFP, the WHO and many other international partners, to provide feedback and proposals and to raise the voices of cities.

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# Introduction

The Task 4.6, titled 'Connecting FOOD TRAILS cities with SMEs and start-ups,' serves as a test-bed aimed at assisting Living Labs (T2.2) in advancing their journey toward innovation and the sustainable development of their food policies. CF actively aids cities and their local Living Labs, inclusive of the private sector, by conducting a thorough analysis (utilizing the findings from T1.5 and T2.1) to identify their innovation requirements aligned with the Food 2030 priorities. Subsequent to this analysis, CF shares a methodology designed to enhance the connections between identified needs and potential solutions among stakeholders within each Living Lab.

The proposed methodology involves initiating a targeted "Call for Solutions" to identify exemplary cases of food system transformation spearheaded by SMEs/start-ups that align with the food system needs (T1.5 and T2.1) of the partner cities. These exemplary cases can potentially be adopted and adapted by participants within the Living Labs throughout the project duration and beyond.

CF actively oversees the entire process, including the outcomes of these collaborations, and inform the impact evaluation of the WR (T4.2). Importantly, this task serves to foster connections and capitalize on the involvement of other project stakeholders, such as T2.2 Living Labs, T4.1 Investors Living Lab, and T7.2 Think Tank.

The Living Labs have different histories and present a rich diversity in terms of cultural aspects and maturity of their ecosystem. For each Living Lab the context was set by the deliverable of the WP2, considering the **Food Policy Action Canvas** and the ongoing activities of the **Theory of Change**. These documents are constantly evolving and transforming the strategy of each city.

The governance of the Living Labs is a key factor influencing their strategies and activities. Most of cities present a small team of dedicated people within the City Council and are directly involved with the creation or development of the food policy. Each Living Lab includes the participation of numerous local stakeholders and variable geography based on the needs of the city. In some cases, the scope of a city is wider than then the one of the cities itself. In fact, some Living Labs have to consider a number of different cities distributed within a specific region and their degree of autonomy and local challenges. In other situations, the Living Lab is led by the procurement office that has a strong influence on regulations and policy shaping, but in an indirect way. Furthermore, the innovation needs mapped for some of these cities vary from support in strengthening the governance models to input to rethink internal procurement processes and assessment criteria.

Another aspect to considered is the current historical moment and the influence of external factors on the development of the Living Labs activities. The pandemic forced the cities to reduce the number of public events and opportunities for public debate in physical spaces, shifting from farms where the food is produced to social networks where the conversation has never been so lively on the topic. Food delivery services increased their function and



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new forms of social care had to be implemented. New occurrences required new solutions and supporting policies.

### **Cities and urban food policies**

Food Trails is led by the Food Policy of Milan and with other ten European cities are experimenting with policy actions. The eleven cities represent a cross-section of the different types of European cities involved from a geographical point of view (seaside or mountain cities), size (medium-sized cities, large cities, and European capitals), and governance (municipal or metropolitan bodies).

This diversity is also reflected in the different states of implementation of the related food policies in the eleven cities:

- Early stages: municipalities with different food actions but with low coordination among actions and departments engaged;
- Under development: municipalities with drafted food strategy and priorities, food councils to be approved or created in less than one year;
- Advanced: municipalities with urban food policies approved, strategies applied to the action plan, relations on international food city networks.

In Food Trails, the cities, independently by the stage of the implementation of the food policy, activated a Living Lab with relevant stakeholders for the design and deployment of food policy actions.

The composition of the Living Lab was very different for each city and the presence of innovative private actors such as Start-ups and SMEs was very low or non-existent. Through the “Call for solutions” proposed by Food Trails, created an opportunity to the 11 cities participating in Food Trails have for expanding the involvement of the private sector in their living labs.

The keywords identified for the 11 Food Trails Living Labs are:

- **Engagement** (collaboration, communication, networking, community, stakeholders)
- **Cultural identity** (food culture and traditions, education, awareness)
- **Food waste** (management, monitoring, reduction, surplus, redistribution, compost)
- **Data** (collection, monitoring, management, uniform across platforms, evaluation)
- **Platforms** (food redistribution, education, supply chain software assessment)
- **Governance** (knowledge legacy, assessment, securing resources procurement)
- **Sustainability** (climate mitigation, CO2 emissions, zero waste, 2030 goals, impact)
- **Digital** (mobile apps, websites, system integration, sharing data, media channels)

## **Background**

The initial assumption underpinning this study was that the Living Labs could greatly benefit from the input of innovative technologies to boost their current activities and increase and scale up the impact of their Food Policy initiatives, including the creation of new products and services to be monetised to foster their economic sustainability.

This assumption is rooted in the understanding from academic literature that successful innovation processes towards addressing societal challenges depend on productive relations between all innovation actors, i.e. private sector, civil society, government and the science and technology sector. In all Food Trails living labs, the collaborations are biased towards the public arena, such as food councils, school food and canteens, public procurement, citizen festivals and citizen-driven action, food surplus redistribution for donations and urban gardening, and academia as knowledge broker, co-creator and evaluator of solutions. Generally, the private sector participates in these actions in the role of stakeholder – participation in the role of innovator or investor is absent. The single exception is the participation of a social not-for-profit enterprise (SME) in the pilot action on composting in Birmingham.

The observed gap in the participation of innovators from the private sector in food policy represents key barriers towards establishing an innovation ecosystem for urban food system transformation. In this section we present a brief theory on innovation ecosystems and position the process on the Call for Solutions in this literature.

In the past, the academic literature on innovation systems (IS) primarily denoted the interactions among actors necessary to turn an idea into a marketable process, product, or service. However, this conventional understanding of innovation systems failed to acknowledge the importance of social innovation and the enhancement of quality of life as their main objectives. As a result, the concept of innovation ecosystems (IES) emerged in literature to emphasize the role of complex and dynamic interactions among an ecology of actors. Innovation ecosystems contains the evolving set of actors, activities, and institutions as well as their relationships that are inherently part of the innovative performance of an actor or a group of actors. IES emphasizes the collaborative role of people, culture, and technology as catalysts and promoters of creativity, invention, and innovation across disciplines. It utilizes both top-down (policy driven) and bottom-up (entrepreneurship-empowered) approaches.

The process on the "Call for Solution" was an experiment to mimic the exposure of the stakeholders in the Food Trails living labs to the European innovation ecosystem. In Table 1, this is illustrated by presenting the key elements of the IES approach and how the process addressed each of these components.

**Table 1. The Innovation ecosystems approach applied through the Call for Solutions**

<b>Key elements of innovation ecosystem (IES) approach</b>	<b>Application in the process on the Call for Solutions in Food Trails</b>
Nature of knowledge production: IES emphasizes the collaborative role of people, culture, and technology as catalysts and promoters of creativity, invention, and innovation across disciplines.	The process in Food Trails utilized a combination of both top-down (policy driven) and bottom-up (entrepreneurship-empowered) approaches. The Call process was implemented without direct financial

	incentives, yet offered outreach, brokerage and communication support.
Perception of innovation: IES underscores the significance of both technological and social innovation, with a focus on sustainability and the goal of a higher quality of life for citizens.	The process in Food Trails emphasised the Food 2030 co-benefits as the value set on which the micro-entrepreneurs and SMEs solutions (MSMEs) need to deliver impact.
Key actors and their functions: IES extends its scope to include citizens as key emerging actors, in addition to traditional innovation actors (Triple Helix: universities, government, and industry). The adaptability of innovation actors is becoming increasingly important.	In the process in Food Trails micro entrepreneurs and SMEs were approached through public channels; the living labs comprise representation from the Triple Helix as stakeholders; citizens were not engaged directly in the call but included as potential end-users.
Relations between actors: IES encourages a transition from traditional innovation networks to complex innovation spaces, where networks of networks thrive, emphasizing interdependencies and indirect relationships.	In the process in Food Trails, the organiser of the process, Cariplo Factory, is an ecosystem in itself. It comprises activities related to business incubation, business acceleration and impact investing, and service design; also, Cariplo Foundation, of which Cariplo Factory is an instrumental entity, co-leads the implementation of the food policy of the city of Milan. In addition, exposure to investor perspectives – based on the Impact Investor Living Lab - are incorporated in the open innovation process with cities. As such the opportunities for participating cities of transitioning towards a complex innovation space are mimicked.
System boundaries and context: Unlike innovation systems, IES allows for knowledge flows and innovation processes to transcend geographical boundaries and localization, and innovation and education.	In Food Trails, the Call is implemented in a European geography and across multiple cities, involving elements of innovation, education and knowledge transfer.

## Methodology

### Open innovation approach to identify patterns - Mapping the Living Labs innovation ecosystem

The methodology adopted for developing the Match-Making Process between the innovative companies and the cities was design by the T4.6 leader, Cariplo Factory taking into account of the differences among the 11 cities, the pathway of each Living Lab, the

implementation status of each pilot in connection to the city's food policy development and the transformational and empowering process that each city is doing in the Food Trails Project.

The aim of the activities was to create a testbed to support Living Labs in their pathways towards innovation and business sustainability of their food policy actions. Based on the results of this analysis, Cariplo Factory shared a method to better the connections between needs and solutions among the actors within each Living Lab. The method consists in the design of an Open Innovation Flow characterized on the assessment of cities needs and launching of a dedicated **“Call for solutions”** to find the best cases of food system transformation led by SMEs/startups, that Living Labs participants during the project and even beyond it. CF monitors the process and the results of these connections and inform the impact evaluation of WR (T4.2).

## T4.6 Objectives and activities

The goal of the activity is to connect Food Trails cities with European SMEs and start-ups that can support their initiatives. This task is contributing to the WP4 general objective of assessing impacts to create opportunities for attracting financial investment.



The methodology adopted for this task is divided into 3 main phases:

### 1. Analysis and assess (Mapping Stage) | M13 – M16

- a. Open innovation assessment

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- b. Needs assessment survey

## 2. Inspire, discuss and visualise (Priority Alignment Workshop) | M17 – M22

- a. Open innovation workshop
- b. One-to-one sessions with each Living Lab
- c. Open Innovation Tree on Mural
- d. Explore the ecosystem and identify key partners

## 3. Synthesise and disseminate (Call design and communication planning) | M23 – M24

- a. Aggregate results
- b. Identify patterns
- c. Inform Call for innovators

Cariplo Factory combined its approach to Open Innovation and some Design Thinking methods to identify key innovation needs for each of the cities. T4.6 included the following activities:

- An online **Open Innovation workshop** with all partners to showcase examples of design thinking and open innovation approach applied to the development of Living Labs at the city level;
- An open innovation **self-assessment** and a **survey** to collect updates on current activities and priorities for each of the cities;
- A **1-hour one-to-one session** with each of the 11 cities to map their innovation ecosystem, key stakeholders and funding opportunities;
- The creation of an **Open innovation tree** to visualise and compare the city's potential and identify key areas of support for external innovators;
- The launching of the initiative Call for Innovators Sustainable Food Systems
- The Match-making Day (start-ups/SMEs – cities)

Below is described the activities in more detail:

### Inspire and assess > Open Innovation workshop

A first workshop was delivered online with all Living Labs representatives to share key objectives, Open Innovation frameworks and Design Thinking led practices.

The workshop aimed at introducing a more open approach to innovation, using design thinking methodologies and mindset and proving the impact of this mindset on similar projects.

During the workshop the following case studies were shared with the aim of inspiring action and igniting a meaningful conversation:

1. Andernach Edible City, Germany – An urban agricultural project.

2. Ljubljana Bee Path, Slovenia – Tourism and biodiversity preservation initiative.
3. Stratumseind 2.0, Eindhoven, The Netherlands – A Living Lab for street safety.

### **Inspire and assess > Open Innovation self-assessment**

The participants were asked to engage with an interactive task on the digital collaboration platform Mural to self-assess their Open Innovation capacity.

The assessment considered a series of statements to rate according to 4 possible conditions: “activities we never performed”, “activities we performed once”, “activities we performed more than once”, and “activities we regularly perform”.

Overview of results: <https://infogram.com/cariplofactory-1hd12yxwl0kow6k?live>

### **Inspire and assess > Needs assessment survey**

The cities were requested to fill in a survey on the JotForm platform to indicate a priority of current interventions and share some updates.

The questions part of the survey were:

Main concern	open field
Secondary blocker	open field
Any other obstacle	open field
What innovation or new technology could help the development of your initiatives?	list of potential startup categories
Any other?	open field
Have you already identified any startup or technology partner?	open field
How do you plan to sustain your initiatives?	list of city initiatives
What funders or investors have you already identified?	open field

### **Discuss and visualise > One-to-One sessions with each Living Lab**

Each Living Lab had 1 hour online one-to-one session with Cariplo Factory design and Open Innovation experts. During the sessions content was reviewed and updated, considering current constraints and latest developments.

Every city had different needs and specific requirements, but the overall structure of the session was consistent for all partners.

Timing	Topic
5 min	Intro about the session
5 min	Clarify objectives (identify potential innovation partners and funders)
10 min	Review Food Policy Action Canvas (key actions), Theory of Change (objectives) and existing stakeholders
15 min	Mentioning constraints and specific challenges emerged from the survey and Open Innovation self-assessment
20 min	Exploring main themes and key areas to prioritise activities and current initiatives
5 min	Conclusions and requests
2 weeks	Allowing participants to develop the map with their colleagues in the weeks following the session

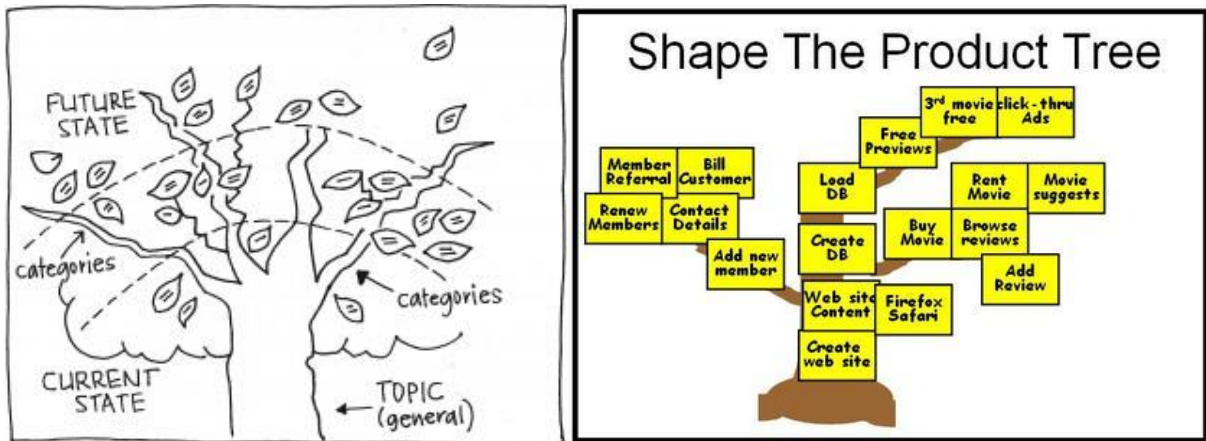
### Discuss and visualise > Open Innovation Tree on Mural

The platform Mural was used during the Open Innovation workshop to perform the self-assessment and during the one-to-one sessions with the Living Labs. Each city had access to its own Mural board populated with all relevant data and information collected from previous WP deliverables and other activities.

In order to facilitate these online sessions, Cariplo Factory created a new framework taking inspiration from an existing technique called "**Prune the Future**" described by the Gamestorming innovation methodology. <https://gamestorming.com/prune-the-future/>

Prune the Future uses a tree as a metaphor to show how the future of anything can be shaped, one leaf at a time. The picture of the tree is the working metaphor for this exercise - it represents the roots of the topic, the branches of the topic, and, of course, the topic's growth potential.



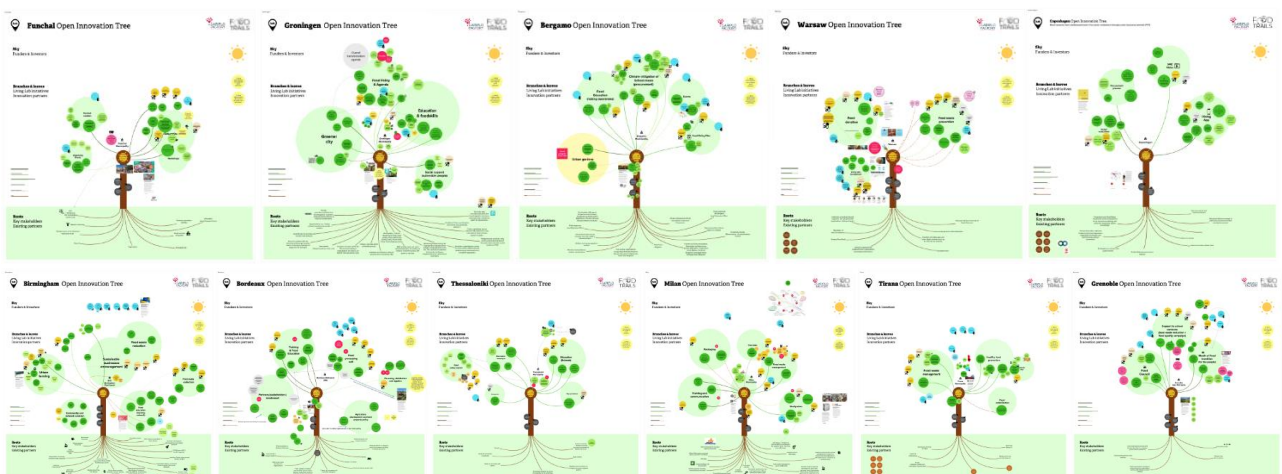


The Prune the Future game is based on the Prune the Product Tree activity in Luke Hohmann's book, *Innovation Games: Creating Breakthrough Products Through Collaborative Play*.

The adapted version of this exercise, called **“Open Innovation Tree”** used the visual metaphor of the tree considering the following aspects:

1. The Roots: key stakeholders and existing partners
2. The Trunk and the beehive: the Living Lab
3. The Branches and the Leaves: Living Lab initiatives and activities
4. The Bees and the Bugs: potential innovation partners and constraints
5. The sky and the water drops: the funders and investors that can provide resources
6. The connectors: the current status of funding of the different activities

This visualisation is to be considered as a “boundary object” to lead the conversation and increase the shared visibility of objectives and activities for all partners involved. The tree is not meant to be an exhaustive representation of the current status, but as a dynamic object to capture ongoing developments and allow new ideas and strategies to emerge.





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### **Discuss and visualise > Explore the ecosystem and identify key partners**

During the one-to-one session the facilitator challenged each Living Lab to set a sense of priority for some of the activities mapped, adding any relevant information still missing and to connect each initiative with a potential innovation need and sustainability partner.

This task was useful to identify the topics to be developed further, the resources to invest in some of the activities and scanning the current stakeholder's ecosystem in search of economic support.

### **Synthesise and match > aggregate results**

The Living Labs had two weeks following the one-to-one session to edit, develop and refine their board and the elements to be displayed on their Open Innovation Tree.

In the meantime, the Cariplo Factory team worked on comparing and aggregating results, consolidating a taxonomy and exploring similarities in terms of the language used to describe their needs and recurring problems that could be considered common patterns.

The information mapped is a mix of qualitative inputs that emerged during the sessions and quantitative snapshots of the data collected with the survey.

<b>Information</b>	<b>Source</b>	<b>Analysis criteria</b>
Challenges and blockers	JotForm survey	Constraints that the Living Labs encounter while developing their Food Policy
Innovation and technology needed	JotForm survey	Number of occurrences given an initial list of startup sectors
Topics and activities	JotForm survey and Mural sessions	What cities consider more urgent for the development of their Living Lab

### **Synthesise and match > identify patterns**

By comparing the needs collected and giving a visual overview of the Open Innovation Trees created, the team was able to identify the recurring themes and spot opportunities for innovation.

Not all the Living Labs had the same sense of urgency towards the possibility to collaborate with startups or SMEs, as part of the problems encountered are more concerned with the development and the governance of the Living Lab itself and the engagement strategy for key partners and stakeholders.

Some charts and tables analysing the data emerged are attached to this report.

### **Synthesise and match > inform Call for innovators**

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The keywords used during the sessions with the Living Labs represent a map of topics or specific needs to be translated into opportunities. The call for innovators has the objective of attracting European SMEs and startups that can address multiple needs across different cities and facilitating the matching mechanism between cities and external innovation players.

From an Open Innovation standing point, the final objective is to strengthen the Living Labs' ecosystem by leveraging the relationships between corporates, new business players, public institutions and third-sector organisations.

## Aggregated results

### An overview of the assessment for each city

Some of the Living Labs are also looking for solutions to attract funding, secure human resources, define internal governance and regulations or reinvent procurement processes to better influence food policies. The city of Copenhagen has got financial resources and partners to innovate but needs support with the co-design process to shape their solution (e.g. Dialog App for kitchen staff) around the needs of their users.

No reference to the latest trends in technology such as AI, machine learning, blockchain, virtual reality or perceived understanding of startup processes such as lean, agile, growth hacking or business model validation.

### Challenges and blockers

Each city was asked to express its main constraints in developing a food policy. We identified 8 categories of risk and blockers:

1. Engagement
2. Cultural resistance
3. Funding
4. Regulation
5. Time
6. Human resources
7. Internal blocks
8. Procurement

**Engagement** is the most common problem, with 8 cities mentioning it, from lack of involvement of key partners to lack of commitment of their stakeholders, and even lack of tools and animation methods.

**Cultural resistance** is the second main issue, with 5 cities mentioning it, from silos thinking and mindset issues to lack of conviction about the importance of the food topics, to conservative opposition to innovation.

Challenge	Frequency	Cities
Engagement	8	Milan Copenhagen Funchal Thessaloniki Grenoble Tirana Bordeaux Warsaw
Cultural resistance	5	Bergamo Thessaloniki Birmingham Grenoble Warsaw
Funding	4	Thessaloniki Birmingham Tirana Groningen
Regulation	4	Copenhagen Thessaloniki Birmingham Groningen
Time	3	Funchal Grenoble Bordeaux
Human resources	2	Funchal Warsaw
Internal blocks	2	Grenoble Warsaw
Procurement	1	Milan

## Innovation and technology needed

Cariplo Factory identified 17 different categories of innovation and/or technology that could help the Living Labs' development.

11 categories were initially defined by Cariplo Factory and 6 were added by the cities during conversations during the one-to-one sessions.

What innovation or new technology could help the development of your initiatives?	
1	Smart solution for urban gardening
2	Alternative proteins (nutrient-rich food)

3	Sustainable packaging
4	Food redistribution platforms
5	Producer/consumer matchmaking platforms
6	Food waste monitoring and reduction
7	Data collection and management
8	Food surplus redistribution
9	Educational platforms and tools
10	Biodigesters and energy production
11	Supply chain software and procurement platforms
<b>Needs emerged during one-to-one sessions</b>	
12	Circular economy mushrooms farming
13	App development
14	Composters production
15	Solution to improve Living Lab governance (ongoing assessment platform, knowledge legacy platform, website, interactive e-learning guide on how to do living labs)
16	Logistics system for Food Banks/logistic management systems connected to waste management
17	Video production

All cities indicated if a specific innovation or technology is potentially very useful (score of 10), moderately useful (score of 5) or not useful (score of 0).

**Data monitoring, collection and management** is the most requested category, with 10 cities stating it could be useful (an average of 7,27).

**Food waste monitoring and reduction** was the second most requested, with 7 cities mentioning it (an average of 6,36).

**Educational/innovative campaigns platforms and tools** are the third most requested category, with 6 cities mentioning it (an average of 5,45)

The last two are also the only categories always stated as "very useful".

The lowest score is gained by:

- Smart solution for urban gardening (1 city, moderately useful)
- App development (1 city, very useful)
- Composter production (1 city, very useful)

Innovation or technology	Frequency	Moderately useful	Very useful	Average score
Data monitoring, collection and management	10	4	6	7,27
Food waste monitoring and reduction	7	0	7	6,36
Educational/innovative campaigns platforms and tools	6	0	6	5,45
Food redistribution platforms	6	3	3	4,09

Alternative proteins (nutrient rich food)	5	2	3	3,64
Sustainable packaging	4	0	4	3,64
Supply chain software and procurement platforms	5	2	3	3,64
Producer/consumer or producer/restaurants matchmaking platforms	4	2	2	2,73
Food surplus redistribution	4	2	2	2,73
Solution to improve Living Lab governance (ongoing assessment platform, knowledge legacy platform, website, interactive e-learning guide on how to do living labs)	3	0	3	2,73
logistics (storage monitoring) system for Food Banks/logistic management systems connected to waste management	2	0	2	1,82
Biodigesters and energy production	3	3	0	1,36
Circular economy mushrooms farming	2	1	1	1,36
App development	2	0	1	0,91
Composters production	1	0	1	0,91
Video production	1	0	1	0,91
Smart solution for urban gardening	1	1	0	0,45

## Topics and activities

Caripla Factory identified 12 different main topics that cities are working on or plan to work according to what emerged from the survey and one-to-one sessions.

### 1. Urban farming and gardening

Activities related to community gardens or urban gardening

### 2. Food waste management and reduction

Activities related to food waste monitoring and management, and food recovery process optimization

### 3. Education and training

Activities related to school education programs or any kind of training/workshop on different topics, with different targets

### 4. Communication and engagement

Activities related to awareness and information campaigns, content creation, community networking and engagement

### 5. Events

Activities related to specific events organisation

### 6. Access to healthier food

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Activities related to changing school menus or giving possibilities to vulnerable people to get better nutrition

**7. Food packaging**

Activities related to reducing plastics for packaging in food ingredients or meals

**8. Business incentives**

Activities related to local farmers or local sustainable businesses support

**9. Food data collection**

Activities related to collection, analysis and usage of data

**10. Food distribution, delivery and logistics**

Activities related to food redistribution and logistic optimization

**11. Food processing**

Activities related to meal production in schools

**12. Policies, procurement and governance**

Activities related to internal operations and regulation

**Education and training** and **Communication and engagement** are the 2 most populated categories, with 8 cities saying they are currently doing activities on that topic.

**Food waste management and reduction** is another important topic, with 6 cities mentioning it. Also, 8 cities mentioned activities in the **Policies, procurement and governance** topic.

Thinking of the topics and the language to be used in the upcoming Call for Solutions we suggest the following criteria:

- Attract startups and SMEs that can be **integrated into the governance** of a Living Lab creating synergy between private and public sectors, considering as a positive factor previous experience with procurement processes and multi-stakeholder environments;
- Invite startups and SMEs that can **strengthen the networking capacity** of the Living Labs, from matchmaking platforms between producers and consumers to shorten the supply chain to community creation platforms to enhance engagement and citizen participation (this can also be non-food related solutions, such as gamification platforms for urban engagement and participatory processes);
- Appeal to innovation players that work in the field of **food waste management and reduction**, that have developed specific technologies or solutions to improve surplus food redistribution or the logistics aspects (from last-mile delivery to stocking) by improving the food life cycle;
- Align the importance of **ongoing food education** (students, parents, teachers), training and learning platforms (canteen staff, chefs and restaurants), awareness raising initiatives (citizens, politicians, decision-makers) that can vary from digital platforms to the organisation of workshops, events and dedicated festivals where food policy meet the promotion of cultural diversities and link to tourism as an economic driver;
- Attract innovative ideas that can help **collect and analyse data** to reach **sustainability goals** and leverage points for FOOD 2030 urban food policies

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development (nutrition and circularity, food systems innovation, climate mitigation and resilience, zero waste).

After the matchmaking activity between businesses and cities, some common barriers emerged regarding the process to be activated with businesses. Opportunities then arise that could help cities overcome the identified barriers.

### **Barriers**

- ✓ Services in the food policy could be managed by cities by different departments or in some cases by in-house companies. Decision-making power is spread among different people who refer to different representatives in the administration.
- ✓ Public procurement based on national, regional, provincial and local legislation is the system for engaging innovative subjects if the activity involves the paid administration of a public service.
- ✓ Services managed through tenders at the maximum lowest bid do not help in identifying innovative entities in which the quality of the demand and supply of the service counts.

### **Opportunities**

- ✓ The Municipalities should move from the logic of the service provider to one of public-private partnership, in which both parties benefit from the collaboration. The partnerships can include a duration dedicated to an experimental phase, preparatory to a real service.
- ✓ Prepare the service or partnership by preparing feasibility studies or specific case analyzes on the technical needs of the administrations. These costs can be covered by funded projects, municipal budgets or can be carried out by the startup as an investment for a future partnership.
- ✓ In procurement tenders, it is necessary to facilitate systems with rewards based on the quality of the services offered and not just on the cost of the service.

## The Call for Solutions

### Attracting European innovation agents

Based on the needs of cities identified through the actions described above, the "Call for Solutions - Sustainable Food Systems" was launched in November 2023 and applications were accepted until 16 February 2023 (11:59 pm Rome time).

The Call, managed by Cariplo Factory, is a pan-European initiative to select and highlight the best start-ups and Small and Medium-sized Enterprises (SMEs) that will transform the European food system for a sustainable future. The aim of this call is to connect Food Trails

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Cities with the best European start-ups / SMEs, which will have the opportunity to support the development of Living Labs, establish strategic alliances with one or more Cities and collaborate with their strategic partners such as the European Commission.

The Call pursues the aim of gathering start-ups / SMEs with a high rate of innovation impacts, developing solutions, services, products, hardware and software in strategic sectors for the Food Trails project.

The Call is intended for all start-ups and SMEs that:

- I. Fall under the definition of SME as defined in EU recommendation 2003/361
- II. Are legally established/resident in any of the following Countries:
  - a) The Member States (MS) of the European Union (EU), including their outermost regions
  - b) The Overseas Countries and Territories (OCT) linked to the Member States
  - c) H2020 associated countries (those which signed an agreement with the Union as identified in Article 7 of the Horizon 2020 Regulation): according to the updated list published by the EC
  - d) The UK applicants are eligible under the conditions set by the EC for H2020 participation at the time of the deadline of the call
- III. Operate in the fields mentioned below:

**1. Education and training**

Promoting local training, food education programs, workshops, cooking and tasting classes in schools and public venues using innovative techniques and technologies to generate more widespread engagement.

**2. Communication and engagement**

Innovative and technological solutions to engage citizens and students by creating communities and networks with attention to raising awareness of the food system and food waste.

**3. Food waste management and reduction, distribution, delivery and logistics**

Innovative solutions to manage and reduce food waste, support the distribution and delivery of food and organize the logistics.

**4. Data collection**

Optimising and digitising data collection and management to monitor and assess the food chain.

**5. Access to healthier food and food processing**

Enable easier access to healthy food also to vulnerable people and allow sustainable food processing.

**6. Urban farming and gardening**

Increasing and improving urban agricultural productivity models using innovative techniques and technologies to generate more sustainable production models.

**7. Food packaging**

Innovative solutions to reduce plastics packaging of food ingredients and meals in



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schools and public venues.

### **Procedures and deadlines for submitting the applications**

To participate in the Call, the start-ups and SMEs must send their application by filling in English the official Call online form.

The application had to contain:

- a) The complete and correct filling in of the form relating to the proposing start-up or SMEs
- b) The uploading of the following attachments:
  - CVs of the Founders and any other key team member
  - Slide deck presenting the start-ups or SMEs
  - Business Plan or Executive Summary describing the solution, the problem it solves, the target market and the main financial aspects
  - Any technical attachments, tables, or other useful elements

### **Assessment of the applications**

A Technical Committee composed of Cariplo Factory, Municipality of Milan, Stichting Wageningen Research, and the 11 Cities of the program, is set up with the aim of selecting the best start-ups and SMEs that will access the possibility to develop a pilot project for Food Trails Program. The Technical Committee evaluated the proposals received from start-ups and SMEs according to the following criteria:

<b>Assessment Criteria</b>	<b>Weight</b>
Fulfilment of the cities' needs in relation to the challenges	25%
Value proposition and solution's maturity level	20%
Scalability/replicability of the solution	20%
Innovativeness of the solution	15%
Expertise, technical and managerial skills of the team	10%
Market opportunity, market maturity and market metrics	10%

Each criterion had a score from 0 to 5. For each criterion under examination, score values will indicate the following assessments:

- 1 Very poor. The criterion is addressed in an unsatisfactory manner
- 2 Poor. There are serious inherent weaknesses
- 3 Fair. While the proposal broadly addresses the criterion, there are significant weaknesses that would need correcting
- 4 Good. The proposal addresses the criterion well, although certain improvements are possible
- 5 Very good. The proposal successfully addresses all relevant aspects of the criterion in question

## Programme phases and timeframes

The Food Trails Project's Call for Solutions was structured with the following phases and timeframes:

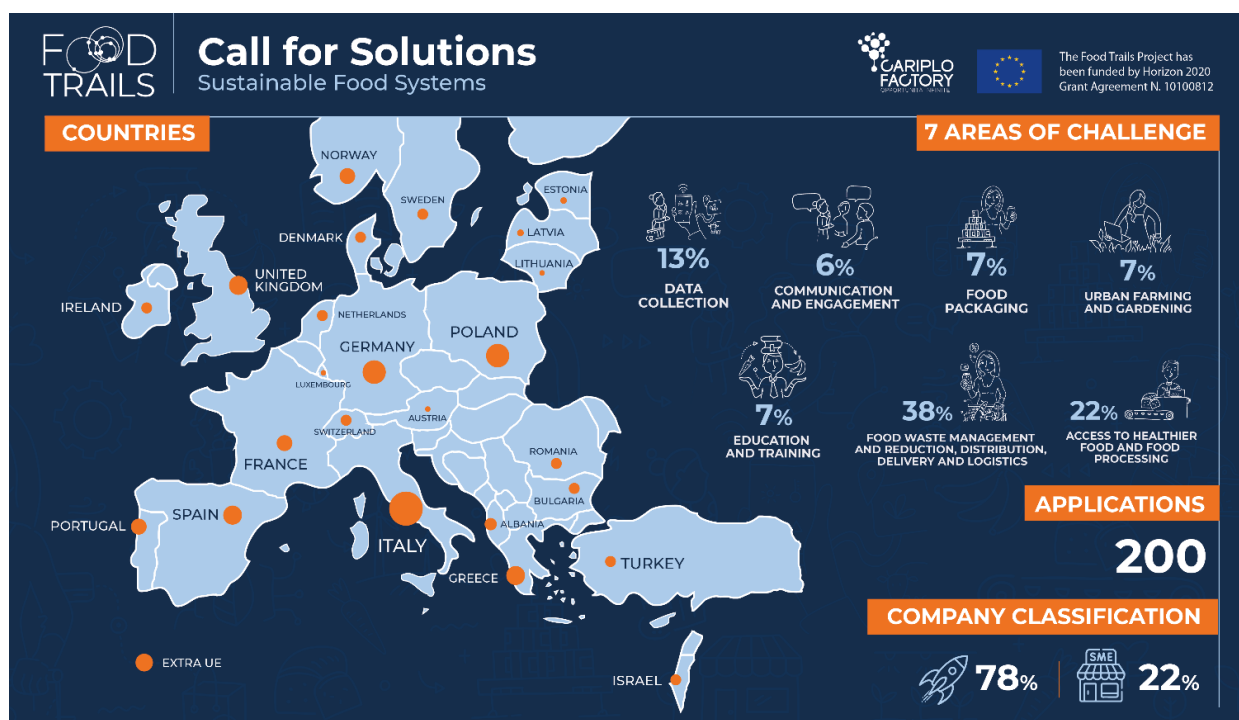
- I. Collection of the applications: from 2 November 2022 to 16 February 2023 (by 11:59 pm, Rome time) by filling the online Application Form
- II. Assessment of the applications: from 20 February 2023 to 17 April 2023
- III. Holding of the "Match Making Day": May 2023

The 23 Start-ups / SMEs that qualified for the first round of selection were invited to participate in the "Match Making Day", which allowed them to present their solutions to the 11 Cities and other stakeholders such as investors and partners of the Cities.

For more information on the Call:

[https://www.cariplofactory.it/wp-content/uploads/2022/11/Official-Food-Trails\\_Call-For-Solutions\\_Sustainable-Food-Systems\\_EN-.pdf](https://www.cariplofactory.it/wp-content/uploads/2022/11/Official-Food-Trails_Call-For-Solutions_Sustainable-Food-Systems_EN-.pdf)

## Results of the Call for Solutions - Sustainable Food Systems



The Call for Solutions - Sustainable Food Systems, initiated by Food Trails, attracted considerable interest, with a total of **200 applications** from different regions across Europe. These submissions were structured to address the individual challenges articulated by the participating cities.

An analysis of the distribution of applications by challenge shows that 7% were dedicated to education and training, highlighting a concerted effort to enrich knowledge in the context of sustainable food systems. Communication and engagement initiatives accounted for 6% of applications, highlighting the critical role of effective outreach and community engagement. The largest proportion, **38%, addressed challenges related to food waste management and reduction, distribution, delivery and logistics**. Efforts to collect data accounted for 13% of applications, indicating a growing recognition of the central role of data in shaping sustainable food systems. Access to healthier food and food processing accounted for **22% of submissions, demonstrating a strong commitment to promoting healthier diets**. Urban farming and gardening initiatives, along with those focused on food packaging, each represented 7% of the applications, illustrating a comprehensive strategy to promote sustainability in urban environments. This diverse range of proposals underlines a collective commitment to formulating innovative solutions for a more sustainable and resilient food ecosystem.

The final ranking of applications received can be found at the following link: [FinalRanking\\_Food\\_Trails\\_2004 \(cariplofactory.it\)](http://FinalRanking_Food_Trails_2004_(cariplofactory.it))

During the Match Making Day, the Start-ups / SMEs had the opportunity to engage in a dialogue with the Cities that launched the Challenge they applied for, to illustrate the Living Lab activities, the potential for effective collaboration and the benefits of the business proposal. Below is a list of the meetings that have taken place:

Start-ups / SMEs	Cities
AGRITRACK	Milan, Thessaloniki
KLIMATO	Bergamo, Birmingham, Bordeaux, Copenhagen, Funchal, Milan
BIOTREM DYSTRYBUCJA	Birmingham, Thessaloniki, Warsaw
KITRO	Bergamo, Birmingham, Bordeaux, Thessaloniki, Warsaw
BIOVA PROJECT	Birmingham, Grenoble, Milan
HYDROPOLIS	Groningen, Thessaloniki
SEAB ENERGY	Birmingham, Bordeaux, Grenoble, Milan
BEEING	Birmingham, Funchal, Milan, Thessaloniki
FHLUD TECHNOLOGIES	Bergamo, Birmingham, Funchal, Groningen, Thessaloniki
BBS	Birmingham, Copenhagen, Milan, Thessaloniki
HELEAN	Bordeaux, Milan, Warsaw
ITALIA PLANT BASED	Bergamo, Thessaloniki
CLEARCO2	Birmingham, Grenoble, Milan
NONA	Bordeaux, Grenoble
VENNER OY	Birmingham, Bordeaux, Copenhagen, Funchal, Thessaloniki
REBREAD	Birmingham, Grenoble, Warsaw
ALBERTS	Birmingham, Groningen, Thessaloniki
ZERO IMPACK	Groningen, Milan

FOODFORECAST TECHNOLOGIES	Bergamo, Grenoble
FUTURE FRIENDLY FARM	Birmingham, Funchal, Groningen, Thessaloniki
COOLOMAT	Milan, Warsaw
SMALL GIANTS	Birmingham
SWOOPLE	Warsaw

### Lessons learned on engaging cities with innovators in the private sector on urban food policies through the “Call for Solutions”

1. The **main insight** is that most of cities **do not require tech support for the development of a specific product or service**. The input of startups developing urban gardening solutions, innovative packaging and new protein-based rich food are considered important but secondary in their current processes.
2. The **second insight** is that if we consider food-related topics the most recurring challenge expressed by the Living Labs is **food waste management and reduction**, with a layer of food data monitoring, connected to educational platforms and awareness campaigns.
3. The **third insight** is that tech innovation is mostly required to **support the Living Lab's internal development processes**, from stakeholders' commitment and citizens' engagement to communication and education strategies to win cultural resistance;
4. The **fourth insight** is about the need to **expand and leverage the local ecosystem** of each Living Lab in terms of funding opportunities, sponsors and potential investors: the study highlighted the opportunity for most of the cities to open up to new models of economic sustainability through private-public collaboration.

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# Conclusions

## Final considerations and next steps

Based on our experience with the Food Trails project, we summarise here the main conclusions we have drawn.

Firstly, we have learnt that it is important to consider the key role of partner commitment and the level of engagement of different stakeholders as a prerequisite for success. Cities recognise that when partners are engaged and committed, sharing knowledge on how to address common issues and learning from other cities on how to address common challenges becomes possible and extremely valuable.

Second, we learned that for the majority of Living Labs and cities participating in the Food Trails program, innovation emerges from the ecosystems they have cultivated. In this respect, it also emerged that a cautious approach is essential when considering technological innovation or solutions from the external market. This is because integration needs to be adapted to the unique context, regulations and conditions of each city.

Third, our project has shown that start-ups and SMEs have the potential to contribute to the transformation of the local food system by facilitating collaboration and becoming part of the ecosystem. In doing so, start-ups and SMEs share their entrepreneurial mindset to address the needs of citizens and society. In the best-case scenario, this leads to experimentation with business models to explore sustainability strategies. The Food Trails project provides an important opportunity to compare the strategies and organizational capacities of different cities and to assess their ability to achieve the FOOD 2030 goals and to respond to specific challenges in their cultural contexts.

Fourth, we found that although most cities were able to develop positive engagement with the start-ups/SMEs they met during the event in the months following the Match Making Day, there was still much to be done to turn these initial contacts into meaningful partnerships. The processes put in place to identify needs, launch the call and organise the Match Making Day were widely seen as very positive and of interest to the cities participating in the project as well as to the most innovative start-ups and SMEs in the European food sector. However, in order to make this process an integral part of a transformative change, it is recommended to complement it with actions that go beyond the initial link between the two entities: the city and the innovative entity (start-up/SME). In this respect, our experience suggests that it could be extremely beneficial to follow up the Match Making Day with a support programme that enables the city to develop a robust partnership with the start-up(s)/SME(s). This could include one-to-one meetings between a facilitator, cities and start-ups/SMEs to better tailor the innovative solution to the local

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context, legal and administrative support for partnership development, and monitoring sessions to suggest any necessary corrective actions.

In conclusion, we have learned that the potential for collaboration between a city and a start-up/SME remains largely untapped at the European level, especially for experimental and research projects such as Food Trails. However, initiating such a collaboration proves to be beneficial for both parties, as cities and start-ups/SMEs can benefit from numerous advantages in terms of resources, expertise and opportunities. Importantly, the effectiveness of the open innovation journey depends on a number of key factors, in many cases related to effective communication/dialogue and shared understanding of needs between cities and start-ups/SMEs. This activity needs to be developed gradually in an open and inclusive way from the very beginning of the process. It facilitates the creation of synergies by harmonising views, approaches and methodologies. Collaboration between cities and start-ups/SMEs is possible, although like any collaboration it has its challenges, especially because these two actors do not have similar backgrounds and experiences. Importantly, what we have learnt suggests that a carefully managed partnership promises to deliver significant economic and strategic benefits, paving the way for a successful transformation of the food system towards sustainability.

# List of start-ups and SMEs selected

## Call For Solutions - Sustainable Food Systems

Below is presented the list of start-ups and SMEs selected by the evaluation committee and the cities for access to the Match Making Day.

Startup / SME	Website	Description	Country of origin	Application Area
Agritrack SA	<a href="http://www.agritrack.io">www.agritrack.io</a>	Agritrack offers a SAAS post-harvest automation platform that optimizes perishable food value chains. The platform uses AI to predict the expiration date, Immutable Ledger to secure traceability, and adds a QR code to food, allowing consumers to access provenance and quality details from farm to fork. Agritrack differentiates itself by using food science and AI to assess food quality and predict expiration dates.	Greece	4. Data collection (Birmingham, Bordeaux, Milan, Tirana)
Alberts	<a href="http://www.alberts.be">www.alberts.be</a>	Alberts' food robot provides 24/7 access to healthy snacks with recyclable or reusable packaging. It produces personalized soups, smoothies, and shakes from IQF fruits, veggies, and plant-based proteins. It revolutionizes the traditional food chain by decentralizing food production, making healthy snacks the easiest option at workplaces, schools, hospitals, and other locations.	Belgium	5. Access to healthier food and food processing (Bergamo, Bordeaux, Grenoble, Groningen, Thessaloniki)
BBS s.r.l	<a href="http://www.bbsitalia.com">www.bbsitalia.com</a>	BBS provides interactive 3D/VR game-based experiences to young generations, creating a fun learning environment to promote sustainable food consumption. BBS focuses on edutainment, combining education with entertainment, and has the capability to design custom "adventures" that can	Italy	1. Education and training (Bergamo, Birmingham, Bordeaux, Copenhagen, Funchal, Groningen, Milan, Thessaloniki)

		be shared with primary students in public and private schools.		
Beeing	<a href="https://beeing.it">https://beeing.it</a>	Beeing aims to raise awareness of the importance of protecting pollinating insects and their role as sentinels of biodiversity, as well as their impact on the food industry. To achieve this goal, Beeing: (1) raises awareness and educates citizens about the importance of protecting pollinating insects and their role as sentinels of biodiversity, as well as their impact on the food industry, with a learning-by-doing approach, i.e. direct contact with beekeeping in apiaries with interactive, safe and digital hives (IoT sensors, AI and app for data); (2) implements a precision pollination strategy for urban and vegetable gardens to protect local biodiversity, integrate it, increase yields and fruit quality.	Italy	1. Education and training (Bergamo, Birmingham, Bordeaux, Copenhagen, Funchal, Groningen, Milan, Thessaloniki)
Biotrem Dystrybucja	<a href="http://www.biotrem.eu">www.biotrem.eu</a>	Biotrem invented the technology which allows to use the wheat bran to make the single use dishes and take away containers with 4 hrs waterproofness. This product can replace single-use plastics in food packaging and have a low carbon footprint. Biotrem's products can be manufactured using only machines, bran, temperature and pressure, and decompose in just 30 days.	Poland	7. Food packaging (Grenoble, Milan)
Biova Project	<a href="http://www.biovaproject.com">www.biovaproject.com</a>	Biova Project offers an innovative solution to reduce food waste by creating and commercializing food products made from surplus ingredients. Its product line includes BEERS AGAINST WASTE brewed from surplus bread, broken pieces of pasta, and surplus rice collected from local producers and distributors. In addition, it	Italy	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana,



		creates a range of savory and sweet snacks from the leftovers of the brewing process.		Warsaw)
ClearCO2	<a href="http://clearco2.com">http://clearco2.com</a>	ClearCO2 aims to provide a simple B2B circular solution to the food crisis. Certifying voluntary carbon credits for SMEs in local food systems provides financing opportunities for innovation. 2.8B carbon credits for food waste solutions represent a € 168B opportunity.	France	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)
Coolomat Sp. z o.o.	<a href="http://www.coolomat.com">www.coolomat.com</a>	Coolomat, a temperature controlled outdoor locker widely used in US and Europe, is a last mile solution that can store food delivered by farmers, food support organizations and e-Grocery retailers in frozen, chilled or heated compartments until it is picked up by end customer. Coolomat can store food in food safe conditions within the range of -20 to +47 degrees Celsius and available 24/7/365.	Poland	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)
F4A	<a href="http://www.f4a.com">www.f4a.com</a>	F4A is a service company that provides Swoople, a B2B2C tech solution to tackle food & product consumption waste on a retail level (app & AI software). B2B2C tech-solutions: B2B solution is an "intelligent" stock management system and dashboard and the B2C solution an app showcasing supermarkets' close to expiry products.	Luxembourg	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)
Foodforecast Technologies GmbH	<a href="http://www.foodforecast.com">www.foodforecast.com</a>	Foodforecast has developed an AI-based software that provides accurate demand forecasts to companies in the food sector (bakeries, supermarkets, the gastronomy) to help them avoiding overproduction and eliminating food waste by	Germany	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham,

		about 30%. The company is able to fully automate and standardize the ordering and production process, optimize staff efficiency, and increase sales by 4% on average.		Bordeaux, Grenoble, Milan, Tirana, Warsaw)
Future Friendly Farm / Listny Cud	<a href="https://listnycud.pl/">https://listnycud.pl/</a>	Future Friendly Farm designs and builds vertical farms of different shapes and sizes for retail chains, offices, hotels and schools. They use 90% less water, 0 pesticides, and provides tasty, local, organic and nutritious food year-round. One of these products is Narnia, a 120 cm wide vertical farm designed for schools or communities that allows to grow more than 200 portions of 12 types of microgreens daily.	Poland	6. Urban farming and gardening (Groningen, Thessaloniki)
Helean	<a href="https://helean.co">https://helean.co</a>	Waiterz has developed Helean, an AI software using all the data of the shop and numerous exogenous factors like weather, national days as well as physical events happening near the location, in order to provide accurate demand forecasts and leverage this data to automate processes like ordering to suppliers, planning the production or even creating the time shifts for employees.	France	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)
Hortee (Legal Name: Fhlud Technologies, Lda)	<a href="https://hortee.co">https://hortee.co</a>	Hortee is a two-sided platform that is transforming the way fresh produce is bought and sold. It connects farmers and buyers through a secure online marketplace (i.e. Hortee Marketplace) and physical pop-up markets (i.e. Hortee Connect). This innovative platform supports the creation of data-driven markets and the digitalization of local community markets, along with sustainability and food education.	Portugal	5. Access to healthier food and food processing (Bergamo, Bordeaux, Grenoble, Groningen, Thessaloniki)
Hydropolis sp. z	<a href="https://www.hydropolis.pl/">https://www.hydropolis.pl/</a>	Hydropolis provides turnkey vertical farming technology,	Poland	6. Urban farming and gardening

o.o.	<a href="https://polis.com/">https://polis.com/</a>	allowing for year-round, local cultivation of fresh plants such as herbs and lettuces. Its solutions are scalable, ranging from small closet-sized crops to as much as 2,000 sqm of growing inside a warehouse. Hydropolis also offers cultivation recipes, which, together with the automation that controls the cultivation, enable safe and healthy plant growth.		(Groningen, Thessaloniki)
Italia Plant Based srl Società Benefit	<a href="https://mindfulmorsel.com/">https://mindfulmorsel.com/</a>	Italia Plant Based, the first Italian platform dedicated to the spread of plant-based Italian food, has developed Foodwise, an after-school food education program that aims to improve food literacy among high school students. The program focuses on plant-based products, teaching students about the entire lifecycle of food and it partners with local food heroes, including producers, artisans, chefs, and entrepreneurs, who share their expertise and inspire students. Mindful Morsel is the first Italian platform dedicated to the spread of plant-based Italian food and education connected to plant-powered food.	Italy	1. Education and training (Bergamo, Birmingham, Bordeaux, Copenhagen, Funchal, Groningen, Milan, Thessaloniki)
KITRO	<a href="http://www.kitro.ch">www.kitro.ch</a>	KITRO offers an automated data collection and analysis solution for the measurement and prevention of food waste in commercial kitchens. The product consists of a device that uses a scale and a camera to automatically measure and analyze waste through AI and machine learning algorithms. Customers get access to a personalized online dashboard where they can get their food waste analysis.	Switzerland	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)
Klimato	<a href="https://www.klimato.co/">https://www.klimato.co/</a>	Klimato offers a user-friendly interface that enables food businesses to calculate the	Sweden	4. Data collection (Birmingham,

		carbon footprint of recipes and communicate the CO2e per dish to customers using Klimato's CO2e labels. Users can also create sustainability reports by uploading sales or procurement data, enabling internal and external stakeholders to follow climate-related KPIs over time.		Bordeaux, Milan, Tirana)
Maïa	<a href="http://www.nona.fr">www.nona.fr</a>	Nona accompanies chefs transitioning towards a more sustainable working model, by supplying a management software that helps them create seasonal menus, handle supplier orders, communicate with the public and get data on their labelled products, budget and food waste. This innovative solution, co-designed with chefs puts the menu at its core: an easier path from the product to the plate.	France	2. Communication and engagement (Birmingham, Bordeaux, Copenhagen, Funchal, Milan, Thessaloniki, Tirana, Warsaw)
Rebread	<a href="http://www.rebread.com">www.rebread.com</a>	Rebread has developed a legally and microbiologically safe process for preserving unsold bread in the food chain by giving it a new best-before date. In this context, unsold bread becomes "fuel" for a fermentation process that leads to the production of new products, such as soft drinks, meat, seafood alternatives and bread chips. In this way, innovative and valuable food are created from saved waste.	Poland	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)
SEAB Power Ltd	<a href="http://www.seabenergy.com">www.seabenergy.com</a>	SEaB has developed Flexibuster™ & Muckbuster™, modular and automated micro AD systems in a series of 20' shipping containers capable of valorizing food waste into renewable energy, grey water and organic fertilizer. This format is suitable for in-building closed loop installations and enables low-cost delivery and ease of operation. ROI averages at 2.5 years with a 20-year product	United Kingdom	3. Food waste management and reduction, distribution, delivery and logistics (Bergamo, Birmingham, Bordeaux, Grenoble, Milan, Tirana, Warsaw)

		life.		
Small Giants	<a href="http://www.eatsmallgiants.com">www.eatsmallgiants.com</a>	Small Giants is a pioneer in the unprecedented transition from traditional meat-based proteins to a wider range of alternatives. We are smashing cultural taboos with insect-based food that is outrageously tasty and packed full of planet-positive protein. Currently in our range is: Cracker Bites - small and delicious high protein snack crackers, Crispy Bakes - protein rich rusks which are slightly sweet, and, Easy Mix - dry mix mince substitute, which can be used to make things such as burgers or meatballs.	Italy	5. Access to healthier food and food processing (Bergamo, Bordeaux, Grenoble, Groningen, Thessaloniki)
Venner Oy	<a href="https://www.vegemi.uk">https://www.vegemi.uk</a>	Venner Oy has developed Vegemi, a patent-pending food education app that makes learning fun for kids by using XR, animation and rewarding kids with animated superpowers of health impacts. It offers lesson plans and an inspiring curriculum to increase vegetable use and create understanding of the health benefits of fruits and veggies. It was developed in collaboration with the Finnish city Espoo.	Finland	1. Education and training (Bergamo, Birmingham, Bordeaux, Copenhagen, Funchal, Groningen, Milan, Thessaloniki)
Zero Impack	<a href="http://www.zeroimpack.com">www.zeroimpack.com</a>	Zero Impack offers a reusable packaging service to eliminate single-use packaging waste in food delivery and collective catering. Its circular model involves supplying, delivering, collecting, and washing reusable containers. The company has developed the first zero-waste food delivery platform with an integrated traceability system to track containers, quantify the environmental impact and generate metrics.	Italy	7. Food packaging (Grenoble, Milan)