

Food Systems in European Cities

D7.21 - Stakeholder network development plan

Project Acronym and	FoodE – Food Systems in European Cities
Name	
Type of action	IA – Innovation Action
Grant Agreement No.	862663
Work package	WP7 Dissemination and Exploitation
Dissemination level	Public
Document type	Report
Lead partner	1-UNIBO
Authors	Valeria Musso, Giulia Rossi, Francesca Monticone, Antonella Samoggia, Francesco Orsini, Verónica Arcas, Valentina Córdoba, Pietro Tonini, Xavier Gabarrell Durany, Anna Petit-Boix, Ramiro González, Matteo Vittuari
Contributors	
Planned delivery date	M48
Actual delivery date	31/01/2024
Project website	<u>FoodE</u>
Project start date	01/02/2020
Duration	48 months
Version	3



Project Consortium

No.	Institution	Institution Full name	Country
	Short name		
1	UNIBO	ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA	IT
2	APT	INSTITUT DES SCIENCES ET INDUSTRIES DU VIVANT ET	FR
		DE L'ENVIRONNEMENT - AGRO PARIS TECH	
3	RMN	COMMUNE DE ROMAINVILLE	FR
4	SWUAS	FACHHOCHSCHULE SUDWESTFALEN	DE
5	ILS	INSTITUT FUR LANDES- UND	DE
		STADTENTWICKLUNGSFORSCHUNG gGMBH	
6	FLY	FLYTECH SRL	IT
7	NOL	NOLDE ERWIN	DE
8	BOL	COMUNE DI BOLOGNA	IT
9	NAP	COMUNE DI NAPOLI	IT
10	UNINA	UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II	IT
11	HCA	HAGUE CORPORATE AFFAIRS BV	NL
12	LAN	GEMEENTE LANSINGERLAND	NL
14	WR	STICHTING WAGENINGEN RESEARCH	NL
16	POL	POLAR PERMACULTURE SOLUTIONS AS	NO
17	TAS	TASEN MICROGREENS AS	NO
18	MBI	ASOCIATIA MAI BINE	RO
19	ARC	ARCTUR RACUNALNISKI INZENIRING DOO	SI
20	BEE	DRUSTVO URBANI CEBELAR	SI
21	SBD	AJUNTAMENT DE SABADELL	ES
22	ISL	ORGANIZACION DE PRODUCTORES DE TUNIDOS Y	ES
		PESCA FRESCA DE LA ISLA DE TENERIFE	
23	ULL	UNIVERSIDAD DE LA LAGUNA	ES
24	UAB	UNIVERSITAT AUTONOMA DE BARCELONA	ES
25	METAINST	STICHTING METABOLIC INSTITUTE	NL
26	NBL AS	NABOLAGSHAGER AS	NO



Document Control Sheet

Version	Date	Summary of changes	Author(s)
0.1	23/01/2024	First draft	UNIBO
0.2	30/01/2024	Final version revised by the consortium	All partners
0.3	31/01/2024	Final version submitted	UNIBO



Table of contents

List of Figures	5
List of Abbreviations	5
Executive Summary	6
1. Scope and method of the report	7
2. Description of the stakeholder CRFS network	8
2.1 FoodE CRFS initiatives	9
2.2 FoodE Pilot Projects	10
2.3 Schools and Food Educational Programs	11
3. Governance approach to the stakeholder CRFS network	12
4. Valorisation routes to sustain running and future actions of the CRFS network	15
4.1 What did you learn in FoodE that will help create the 2100 year vision of the urban and regional food Eden?	16
4.2 Which themes and research areas would you like to cooperate on in the future?	18
4.3 What are the 5 key activities you would propose to create and sustain a large internation network on CRFS governance?	
5. Market-based tools	20
5.1 The FoodE App	20
5.1.1 The target groups for the 4 FoodE App business models	22
5.2 The FoodE Label	23
7. Scientific data valorisation	24
8 References	26



List of Figures Figure 1: FoodF CRES

Figure 1: FoodE CRFS	8
Figure 2: The main activities of the CRFS initiatives of the FoodE network	9
Figure 3: Map of the FoodE pilot projects in Europe	. 11
Figure 4: Student workshop at "Le Serre" pilot, Bologna (Italy)	. 11
Figure 5: Kids activities at Cité Maraîchère center, Romainville (France)	. 12
Figure 6: Stakeholders of CRFS	. 13
Figure 7: The six phases of an MSP process (Brouwer et al. 2016)	. 14
Figure 8: Open-ended answer to the first Mentimeter question	. 17
Figure 9: Keyword answers to the second Mentimeter question	. 18
Figure 10: Prioritization answer to the third Mentimeter question	. 19
Figure 11: Why is the FoodE App involved in the valorisation of the stakeholder FoodE network?	. 21
Figure 12: Consumers/citizens as a customer segment for the FoodE App (taken from "The Food	dΕ
App Business Model Report", UAB)	. 22
Figure 13: Cities as a customer segment for the FoodE App (taken from "The FoodE App Busines	SS
Model Report", UAB)	. 22
Figure 14: Farmers as a customer segment for the FoodE App (taken from "The FoodE App	
Business Model Report", UAB)	. 23
Figure 15: Research/academia as a customer segment for the FoodE App (taken from "The Food	dΕ
App Business Model Report", UAB)	. 23

List of Abbreviations

CRFS	City Region Food System
CRFSI	City Region Food System Initiative
D	Deliverable
FoodE	Food Systems in European Cities
MSP	Multi-stakeholder process
T	Task
WP	Work Package



Executive Summary

Deliverable 7.21 – Stakeholder network development plan - aims at developing a plan to valorize and exploit the stakeholder network on CRFS of FoodE that has been created in the four years of activities of the FoodE project (2020-2024). The network is itself one of the most relevant results and achievements of the project, which requires a dedicated plan for its exploitation within and after the end of the FoodE project. Deliverable D7.21 reports the activities implemented for building the network along the project life and aims to highlight the main exploitation routes and tools that might be used for keeping the network alive in the future. This subtask 7.3.2 - Stakeholder network and EU project clustering - was performed in the framework of Task 7.3 – Exploitation Strategy. In the Executive Summary, a brief description of what will be reported in this document is outlined.

In Chapter 1, the scope of the Deliverable D7.21 is outlined identifying its target groups and the connections with other project Deliverables. In Chapter 2, the stakeholder network on CRFS of FoodE is described starting from a basic presentation of the different CRFS directly involved in FoodE and presenting the main initiatives included in the project through its CRFS initiatives database creation. Secondly, a presentation of the pilot projects that were involved in the project is performed as well as the schools and educational programmes which are an active and relevant part of the project network. In Chapter 3, the basis of the governance approach and principles of the network are presented, and in Chapter 4 the main exploitation routes of the network are presented through the results of the workshop conducted at the last FoodE GA meeting. In Chapter 5, the connections with the exploitation plan are outlined focusing on the two FoodE results that might be relevant tools to indirectly build a community over the stakeholder network: the FoodE App (citing the report by UAB "The FoodE App business models") and the FoodE Label. This chapter is also indirectly linked with the work carried out in D7.20. In Chapter 6, a brief connection with the communication tools such as the website and social media is made to make communication among stakeholders and continuous updates an essential part of the plan. In conclusion, in Chapter 7, a brief overview of the dissemination of FoodE scientific results is given to keep researchers and academia as the key actors keen on contributing to keeping the network alive and growing through scientific work and activity.



1. Scope and method of the report

Deliverable 7.21 builds on the activities carried out within the T7.3.2 - Stakeholder network and EU project clustering - that was carried on along the whole duration of the project (M1-M48) and that is part of the bigger and wider "FoodE Exploitation strategy (T7.3). Deliverable 7.21 - Stakeholder Network Development Plan - with the deadline at M48 aims at collecting all the actions, activities, and results implemented within the project that aimed at the development of a plan to sustain and increase the large international network on City Region Food Systems (CRFS) created by FoodE in the 4 years of its activity. One of the main objectives of FoodE was to build an international network gathering stakeholders that take an active part in the CRFS. The stakeholders' network was built in several phases within the development of the project, gathering new initiatives, pilots, and many actors of CRFS around Europe. All the work executed during FoodE will be gathered in this report with the final aim of exploiting through a valorization path and an exploitation strategy. The scope of this report is, therefore, to define common protocols, good practices, charts, and labels to make clear that the network members have a governance approach to follow. Given that the main objective of the network is to sustain cooperation and collaboration among different entities and communities, the CRFS stakeholder community will have the opportunity to share their activities on an international scale. The scope of this is the cross-pollination among stakeholders that bring their good practices and the exchange of knowledge identifying main advances and gaps.

The report has many connections with the content of D7.20 – Exploitation plan - even if this report has a different scope. It mainly deals with the promotion, organization, and valorization strategies of the network on CRFS of FoodE while the D7.20 is focused on the exploitation of FoodE results, identifying the Key Exploitable Results and building a strategy and a clear roadmap to follow in the future, after the project ends. Therefore, we can consider the D7.20 and D7.21 as close reports that together aim at building a pathway to carefully carry the project beyond its end.

The target group of this report is the general public, given that it might be interesting to get to know the stakeholder network on CRFS of FoodE and what will be done to sustain the FoodE project and its network on CRFS from 2024 on. The groups that can be accounted as target groups for this report are:

- Citizens communities
- Cities and municipalities
- Policy-makers and public authorities
- Civil society organizations
- Enterprises and businesses
- Academia and universities

These groups of people will be acknowledged of the future of the FoodE network on CRFS and will be able to understand its nature, main functioning, and future paths. These stakeholder groups might be interested in getting in touch with the FoodE network, keeping track of its development as well as acknowledging its main actions.

For the method used to build a common framework for the valorization of the network on CRFS, a cocreation process was performed through the engagement of partners during the last GA meeting on the 15th of January 2024. The workshop aimed at identifying a common vision, objectives, and roadmap. Moreover, throughout the year, a participatory approach was applied to engage stakeholders in the development of the network and its main governance structure.



2. Description of the stakeholder CRFS network

Given that the main objective of the FoodE project is "to accelerate the growth of citizen-led City/Region food systems (CRFS) by bringing local initiatives across Europe together, as well as co-developing and disseminating a range of tools - co-designed with academia, citizens, and food system start-ups - to ensure that the most up-to-date cross-sectorial knowledge is applied", a key result of the four years of activity of FoodE is its stakeholder network on CRFS.

In this section, the stakeholder network on CRFS of FoodE is described based on the different activities carried out in the FoodE project summarizing the work carried out in four years to build its network. The three main categories identified for the description of the FoodE project are linked to the main stakeholders that CRFS includes:

- 1. Database of FoodE CRFS Initiatives
- 2. FoodE pilot projects
- 3. Schools and food educational programs

To start with the description of the FoodE network on CRFS, the main City Regions involved in FoodE (from D7.5 – Stakeholder mapping and D3.1 Catalogue of Networking and Cross Pollination Initiatives in CRFS) are presented in Figure 1.



Figure 1: FoodE CRFS



2.1 FoodE CRFS initiatives

The FoodE project collected hundreds of City Region Food System initiatives (CRFSi) that are now part of the network of CRFS connected to FoodE that is described in this report. First of all, an inventory of all the initiatives per country was built for the work on WP2 starting with a survey of 600+ initiatives (from D2.1 – Inventory of emergent BMs and review of innovative bio-economy) and going to the final amount of 100 CRFS initiatives.

Urban farming	Rooftop garden/farming Vertical farming Indoor farming Aquaponics Community gardens Self-harvest gardens Social farming Community-supported agriculture
Local food production & farming	Small scale fisheries and acquaculture Vegetable production Wine production Agroecological & organic practices Permaculture Urban beekeeping Bakeries Community-supported agriculture Social farming Circular fungi production
Food distribution	Food markets Farmers' markets E-commerce
Food service & delivery	Sustainable bistrot Meal box delivery Coffee stores Catering
Research centres	
Social entrepreneurship	Food waste collection & reuse Social cooperative Social inclusion projects Cultural activities and events
Local government involvement	Community food projects Urban food policies Public food procurement
Information and communication	

Figure 2: The main activities of the CRFS initiatives of the FoodE network



The aim of most of the initiatives that are part of the network is the promotion and enhancement of the food supply with local, ecological, and sustainable products. They promote local (ecological, in some cases) production and the profile of producers, as differentiated from industrial food producers and world markets favoring food sovereignty. To describe the network and its main area of action and work, it is important to outline the different activities covered by the different stakeholders operating in CRFS. The activity types are categorized and presented in Figure 2. As is shown, the activities deal with every step of the food supply chain – agriculture and – urban - food production, food processing, food delivery, and distribution – as well as other activities that deal with social and community engagement, research, and data collection, communication, and information. This is crucial to have an overview of the complexity managed in CRFS and urban contexts and how the different stakeholder categories are crucial for its activity.

2.2 FoodE Pilot Projects

As reported in the last paragraph, the FoodE network collects hundreds of initiatives that have been contacted under the process of the activities of the project, but few of them have been closely collaborating as pilot projects and actively participating in the data collection, field visits, and more during the activities of FoodE. FoodE pilot projects are partners of the project and therefore the main actors that actively contribute to and represent the stakeholders' network on CRFS of FoodE and are considered as a small community of practice that engages active initiatives and businesses that successfully participate in the FoodE network and that will be able to cross-pollinate with other CRFSs initiatives and projects. In this section, the pilot projects that constitute the stakeholders' network on CRFS of FoodE are listed below (from the FoodE website):

- Aquaponic educational farm Metabolic Institute Amsterdam (The Netherlands)
- "PRISON HONEY" Urban beekeeping for rehabilitation and social inclusion Urban Beekeepers Association of Slovenia (BEE) - Ljubljana (Slovenia)
- ALMA VFarm: an Indoor Vertical Farm for growing Food, Competences and Innovation -Flytech and University of Bologna (FLY, UNIBO) – Bologna, Italy
- o Circular economy restaurant Polar Permaculture (POL) Longyearbyen (Norway)
- o Educational hydroponic garden prototype Tasen microgreens (TAS) Oslo (Norway)
- Educational rooftop farm for school pupils Nabolagshager (NBL) Oslo (Norway)
- Greywater treatment for reuse as service water and in urban farming Nolde & Partner (NOL)
 Berlin (Germany)
- Plant factory for demonstrational purposes Lansingerland (LAN) & Wageningen University
 & Research (WUR) (LAN & WUR) Bleiswijk, Municipality Lansingerland (The Netherlands)
- o Plant factory for social inclusion Tasen Microgreens (TAS) Oslo (Norway)
- o **Restaurant with local products -** Asociația Mai Bine (Mbine) lasi (Romania)
- SERRA MADRE: A food hub for education, leisure, and urban farming innovation Bologna, (Italy)
- Social-therapeutic gardens for local sustainable productions University of Naples Portici, (Italy)
- Sustainable small-scale fishery in school canteens Organización de Productores de Túnidos y Pesca Fresca de la Isla de Tenerife (ULL), Instituto de Investigación Social y Turismo (Universidad de La Laguna) (ISL) – Tenerife (Spain)
- Urban agricultural park for participatory agricultural test spaces Ajuntament de Sabadell (SBD) - Sabadell (Spain)
- Urban agricultural park with farmers and fishery market Comune di Napoli, supported by UNINA-DIA (NAP) - Napoli (Italy)
- Urban Farming at SALUS Space Comune di Bologna Bologna (Italy)
- Vertical farm, educational gardens, sustainable and social food, market gardening and mushrooms production, circular innovation, and short food chain – Commune de Romainville – Romainville (France)





Figure 3: Map of the FoodE pilot projects in Europe

2.3 Schools and Food Educational Programs

Moreover, FoodE project has emerged as a catalyst for transformative educational initiatives, fostering sustainable, resilient, and healthy food systems. This collaborative effort has successfully built a network of educational activities spanning various cities, each contributing to a shared vision of holistic learning. The participating countries, including Italy, Tenerife, France, and Germany, have demonstrated a commitment to engaging students across age groups in the exploration of CRFS, environmental awareness, and sustainable food practices.

Bologna (Italy): the University of Bologna (Unibo) developed initiatives involving nearly 900 primary school pupils and high school students, utilizing creative activities to share knowledge on sustainable food systems. From drawing contests envisioning FoodE superheroes to a journey

through food history, Unibo fostered curiosity and environmental responsibility among young minds. The success of these activities, evidenced by the creation of the TERRIX comic derived from the drawing contest, the engagement of enthusiastic teachers, and invitations for replication in other schools, underscores the potential for **Thanks** long-term impact. partnership developed with the FoodE project, one of the involved high schools has already applied for and obtained European funding to further develop the FoodE activity through the implementation of green laboratories



Figure 4: Student workshop at "Le Serre" pilot, Bologna (Italy)



focused on innovation, sustainability, and resilience, demonstrating the positive impact and value of the initiative.

Tenerife (Spain): the University of La Laguna focused on ecological and nutritional awareness and small-scale fisheries, targeting preschool, primary, and secondary school pupils. Through interactive activities on local marine ecosystems and the nutritional characteristics of tuna species, children were empowered to identify and appreciate local produce. The survey conducted at the end of these activities indicated a positive response, laying the foundation for potential expansions in the future.

Romainville (France): The city council integrated sustainability education into extracurricular activities under the program "Ideas for the Earth and the Plate". The Cité Maraîchère pilot played a pivotal role in providing workshops and courses on various themes related to urban agriculture, waste reduction, and sustainable consumption. Their approach to integrating these activities within the school curriculum exemplifies a strategic long-term vision for education.

Dortmund and Cologne (Germany): German partners' collaboration with primary and secondary schools showcased KidScience activities targeting gardening, healthy food, and sustainability. The engagement of different age groups in quiz-based learning, online and offline workshops and lectures, excursions to ecological city nurseries, and the distribution of translated TERRIX comics demonstrated an effective and tailored educational approach.



Figure 5: Kids activities at Cité Maraîchère center, Romainville (France)

The FoodE project has successfully created a network of educational initiatives, forming a robust network that transcends geographical boundaries. From Italy to (Canary Islands, Spain), France to Germany, each city's commitment to sustainable and inclusive education is evident. The collaborative efforts have not only enhanced awareness among students but have also fostered a community of educators, policymakers, and stakeholders dedicated to shaping a more sustainable and equitable future through education. These initiatives look toward the future. Encouragingly, schools have expressed interest in replicating activities, collaborating on new projects, and integrating sustainable food education into their curricula. However, the main challenge is represented by the funding opportunities. Bologna schools' successful fundraising has demonstrated that the established network lays the groundwork for continued collaboration, ensuring the enduring impact of the FoodE project on the education landscape.

3. Governance approach to the stakeholder CRFS network

After a brief description of the main activities, project pilots, initiatives, and education programs that constitute the stakeholder network on CRFS of FoodE in the previous chapters, in this paragraph the governance structure of the network is presented and described, mainly to state the basic rules and framework that will make the network have a clear governance pathway and approach for the future. To start the discussion about the governance structure of the network, during the first year of activity, a Stakeholder Board was created, which collected key international stakeholders including representatives of public administrations (city councils, metropolitan areas, countries), schools,



citizen-driven CRFS initiatives (urban farmers' associations, citizens and food councils, school garden working groups), researchers (HEIs) and SMEs involved in innovative CRFS (D3.4). The Stakeholder and Advisory Board is composed of two different boards: a Stakeholder Board (includes representatives of public administrations (city councils, metropolitan areas, countries), schools, CRFS initiatives, research institutes, and civil society organizations that actively participated in FoodE KidScience activities and MyLocalFoodE initiatives; and an Advisory Board composed of experts of CRFS, in measure of 1-2 individuals representing each category of the stakeholders board that provide specific advice on project activities and results and were invited to specific project meetings and MyLocalFoodE initiatives. Building on this, it must be considered that the Stakeholder and Advisory Boards are an active part of the stakeholders network that FoodE built in the first months of work and that actively participated in the project development as a formal contribution and organization. Moreover, in each partner country, 5 stakeholder panels were created, including representatives from CRFS initiatives (SMEs, NGOs, unions), public administrators and policymakers (PAs), school committees, researchers (HEIs), and representatives of the civil society (e.g. individuals, food councils, consumer organizations).

Therefore, the governance of City Region Food Systems is interactive, which means that it includes different kinds of actors: the market actors, the state, and civil society. The composition of the network on CRFS of FoodE is inspired by the quintuple innovation helix framework that describes the university-government-public-environment-interactions. The stakeholder categories of the network on CRFS in FoodE are represented in Figure 4.

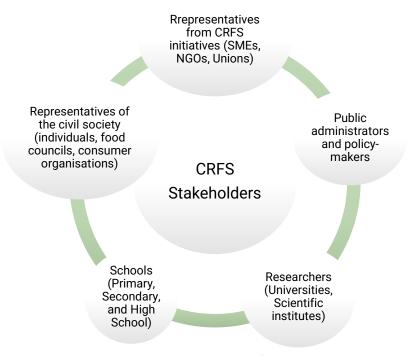


Figure 6: Stakeholders of CRFS

Kang H. et al. (2022) state that governance mechanisms often include different forms of organizational structures, processes, and rules for decision-making, leadership, and other organizational resources and this is true for the governance of local food systems as well. CRFS governance is defined by Roosendaal et al. (2020) as: "the formal and informal processes, structures and rules through which decisions relevant to the CRFS are made, implemented and enforced at various levels and scales". In this sense, the governance structure of the FoodE network is envisioned as a collaborative process as the entire FoodE project has been doing in the last years. Inclusion and stakeholder engagement across the different sectors and organizations in governance structures,



but also groups from different socio-economic backgrounds has been the basic working approach for its organization. The use of participatory approaches and bottom-up planning is therefore key and should be applied in all stages and methods applied for CRFS governance and the stakeholder network attached to support its value creation (Roosendaal et al., 2020).

Therefore, the idea behind the governance structure of the FoodE stakeholders' network on CRFS builds on the principle of multi-stakeholder processes. As proposed by Brouwer et al. (2016) and Roosendaal L. et al. (2020), for a multi-stakeholder partnership six stages are necessary, which are presented in Figure 5. The inclusion of a variety of stakeholders throughout the process is key, but how stakeholders can be brought together and motivated to formulate and commit to a common goal requires a deeper dive into governance and multi-stakeholder processes. The mentioned six steps are: 1. connection; 2. shared language, 3. divergence; 4. co-creation; 5. convergence; 6. commitment (Figure 5). To deepen this concept, the first phase is about defining a common issue around which the collaboration is centered with the next step being the development of a shared framing of that issue. From there, all the different associations and views on that issue are explored in the divergence phase, followed by jointly creating different lines or pathways for action to address the issue. In the convergence phase, a specific pathway or set of pathways is chosen and then commitment is created amongst partners to follow up and take action (Brouwer et al., 2016).

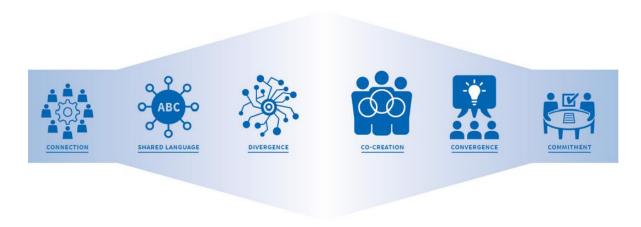


Figure 7: The six phases of an MSP process (Brouwer et al. 2016)

The challenges and barriers when working with CRFS governance might be taken into consideration as well for the governance of the FoodE network as stated by Roosendaal et al. (2020). The main challenges to be encountered are:

- 1. Active stakeholder participation and working with power: working with a wide variety of stakeholders with different interests and power levels can pose challenges in terms of continuity, limited participation, power differences, and conflicting interests and oppositions.
- 2. **Ensuring sufficient resources**: this involves, amongst others, setting up a governance structure, supporting activities and programs, ensuring active engagement of actors, drawing in necessary expertise and equipment, and data collection. This not only entails financial resources but also human resources and capacity while lack of time and dedication are often encountered with/leading to? struggles.
- 3. **Need for non-traditional structures:** finding appropriate governance structures for a CRFS may mean that existing governance structures need to be rewired to span different administrative and political boundaries, requiring comprehensive integration and alignment of policies and geopolitical



interests. This creates a tension between the need for boundary-spanning structures, both geographically and across sectors, and the existing boundaries and sectors in which those new structures need to be developed.

4. **Working with complexities:** one of the challenges of the CRFS approach is that the framework embraces complexity: working in such a context requires a level of flexibility and competence that can be a true barrier in daily practice (Roosendaal et al. 2020).

4. Valorisation routes to sustain running and future actions of the CRFS network

As mentioned in this report, throughout the four-year project, the stakeholder network has undergone significant expansion and diversification, encompassing a broad spectrum of actors, both internal and external to the initial FoodE project partnership. The relationships forged among these stakeholders vary in nature, with some evolving into robust connections while others remain more nascent. The conclusion of certain projects within the timeframe does not mark the end of collaborative opportunities; instead, these projects continue to present possibilities for ongoing development, necessitating sustained cooperation among the identified stakeholders. Although FoodE's primary objective revolves around overcoming barriers in diverse European cities and regions to showcase innovative food-related approaches, the maintenance of achieved results demands the formulation of effective strategies for ongoing stakeholder participation.

To ensure the continuity of the project's outcomes, it is fundamental to cultivate strategies that facilitate the engagement of stakeholders. Given the international nature of the established network, diverse activities are essential not only to create and sustain this extensive network but also to encourage active participation. All stakeholders, from those integral to the core group at the project's inception to those incorporated during subsequent enlargements, will play pivotal roles in defining these activities. The collaborative approach involves considering the input possibilities of each actor and creating a cohesive framework for the network's future actions. The formulation of shared activities and actions will provide concrete guidelines for each network member, ensuring that they have clear steps to follow in the future. This inclusive approach aims to guarantee the continuity and effectiveness of the project beyond its formal conclusion.

To explore the future possibilities, a workshop was developed during the final GA FoodE meeting, in which all the stakeholders had the opportunity to actively share insights gained from their involvement in the FoodE project and ideas and possibilities for the future. In line with the project's objectives, discussions at the workshop identified the themes deemed crucial for the future of CRFS and explored the future activities that will be necessary to sustain them. The workshop's outcomes define the beginning of a trajectory for FoodE beyond its formal conclusion. Additionally, the collaborative visioning not only aligns with the project's emphasis on co-development and dissemination of tools but also enables the stakeholders to foster resilient, citizen-driven food systems. By tapping into the collective wisdom and aspirations of stakeholders, the workshop has laid the groundwork for enduring collaboration. Utilizing Mentimeter as a dynamic tool, the workshop unfolded through a series of interactive sessions.

Three main questions guided the discussion, ensuring a comprehensive exploration of stakeholders' perspectives and ideas. The first question, which allowed open-ended answers, prompted stakeholders to reflect on their key learnings from the FoodE project and how these insights could contribute to shaping the envisioned future. This initial phase aimed at tapping into the experience gained during the project, establishing a foundation for informed and forward-thinking discussions.



The second question, which allowed respondents to share keywords, focused on identifying themes and research areas considered crucial for future collaboration within the area of CRFS. This approach allowed for the collection of diverse perspectives and facilitated the emergence of key thematic priorities that could guide collaborative efforts in the post-project phase. The third question introduced a structured element by presenting stakeholders with a list of 10 proposed activities and requiring them to select five of them that they consider essential for creating and sustaining a large international network on CRFS governance. This question aimed at prioritizing key activities that could underpin the future trajectory of FoodE. Following each question, a debate unfolded, fostering an environment of collaboration and idea exchange. The interaction not only enriched the workshop discussions but also ensured that stakeholders actively contributed to shaping the trajectory of FoodE beyond its formal conclusion.

4.1 What did you learn in FoodE that will help create the 2100 year vision of the urban and regional food Eden?

The cooperation between cities of The importance of strenghtening the different countries with the same multiple functions of the food system vision. so you dont have to develop Colaboration in diferent technologies in any future work everything on your own but build on existing projects/ideas. The possibilità to join academic Nothing is easy. research and policy makere to start Exchange between CRFS initiatives concrete exoerimental food initiatives, with a community based I learned that a lot of people share approach the same thoughts that something Collaboration whit multidisciplinary needs to be done for achieving more Importance of local food policies and sustainable food systems support of local municipalities Concreation of solutions among Making initiatives visible and building urban food system stakeholders networks of support. Communication and knowledge Exchange between all relevant A systemic action (involving different actors Collective action is crucial to sectors, different levels of the society, enhance the transformation to different typologies of institution) is créate sustainable CRFS fundamental for moving toward a Food systems are more sustainable future. multidimensionalNutrition surroundings are important A combination of public-private and citizen efforts is necessary to achieve a sustainable social-economic and environmental model



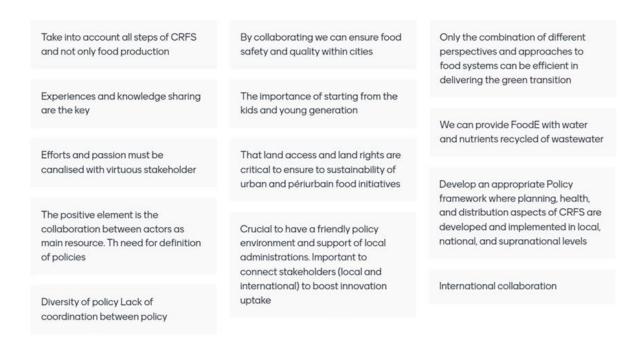


Figure 8: Open-ended answer to the first Mentimeter question

The stakeholders involved in FoodE have gained invaluable insights that can contribute to envisioning a sustainable future for urban and regional food systems. Key learnings emphasize the importance of adopting a comprehensive approach, considering all supply chain steps of CRFS rather than focusing solely on food production. Experiences and knowledge-sharing emerged as fundamental, emphasizing the need to channel efforts and passion through virtuous stakeholders. The collaborative nature of actor engagement was highlighted as a primary resource, underscoring the necessity for well-defined policies.

Several challenges were identified, such as the diversity and lack of coordination in policies, indicating the need for strategic collaboration in various technologies. Stakeholders recognized the potential of joining academic research and policymaking efforts to initiate concrete, community-based food initiatives. Friendly policy environments and support from local administrations were identified as crucial, along with the necessity to connect stakeholders, both locally and internationally, to enhance innovation uptake.

Collaboration emerged as a central theme, essential for ensuring food safety, quality, and sustainability within cities. The stakeholders highlighted the need to strengthen the multiple functions of the food system, acknowledging the complexity of the task at hand. They recognized that achieving sustainable food systems requires collective action, combining public-private and citizen efforts for a holistic, socially, economically, and environmentally sustainable model. The importance of diverse perspectives and approaches to food systems was underscored, with stakeholders advocating for a collaborative, interdisciplinary approach.

Specific suggestions, such as providing FoodE with recycled wastewater for water and nutrient supply, the importance of initiatives that involve citizens from an early age, and recognizing the critical role of land access and rights in peri-urban areas, highlighted the practical aspects of sustainability. Stakeholders and partners emphasized the importance of an appropriate policy framework at local, national, and supranational levels, involving planning, health, and distribution aspects of CRFS. International collaboration, leveraging the cooperation between cities with shared visions, was recognized as a strategic approach to avoid redundancy and build on existing projects and ideas. Exchanges between CRFS initiatives, collaborations with multidisciplinary teams, and the concrete implementation of solutions among urban food system stakeholders were identified as key



elements for systemic actions toward a more sustainable future. The overarching theme revolves around the recognition that achieving sustainability requires a holistic, collaborative, and multifaceted approach involving various sectors, society levels, and institutional typologies.

4.2 Which themes and research areas would you like to cooperate on in the future? 57 responses



Figure 9: Keyword answers to the second Mentimeter question

The responses to the question on preferred themes and research areas for future cooperation reflect a diverse and comprehensive array of interests among the stakeholders. "Urban planning" emerges as the predominant keyword, suggesting a specific interest in strategically developing urban spaces to facilitate sustainable and resilient food systems. This aligns well with the overarching emphasis on the multidimensional nature of CRFS.

"Sustainability" follows closely, highlighting a shared commitment to incentivize environmentally friendly and socially equitable practices within the realm of food systems. The emphasis on "stakeholders" underscores the importance of inclusive collaboration and engagement, emphasizing the value of diverse perspectives in shaping the future of CRFS. "Technology," "water," and "nutrients" acknowledge the crucial role of advancements in technology and resource management in creating sustainable urban and regional food ecosystems. These keywords suggest a focus on innovation and efficiency in the application of technology to address water and nutrient challenges.

While these keywords garnered more attention, it is noteworthy that several other important themes were mentioned only once. This diversity in responses reflects a broad spectrum of interests and expertise among the stakeholders. Topics such as "degrowth," "social services," "circular economy," and "food forests" demonstrate a holistic approach, encompassing social, economic, and environmental dimensions. Overall, the responses indicate a collective commitment to interdisciplinary collaboration, embracing areas like "artificial intelligence," "public relations work," and "building construction." The emphasis on "collective action" and "creating partnerships" further underscores the stakeholders' recognition that collaboration is key to advancing the sustainability agenda.



4.3 What are the 5 key activities you would propose to create and sustain a large international network on CRFS governance?

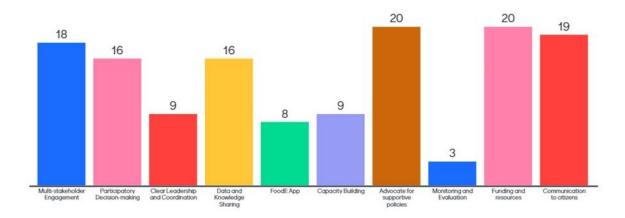


Figure 10: Prioritization answer to the third Mentimeter question

In examining the responses to the question on key activities needed to sustain the international network on CRFS governance, several priorities emerge. "Advocate for supportive policies" and "Funding and resources" both secured the highest number of votes, each receiving 20. This emphasizes the stakeholders' recognition that securing advocacy for supportive policies and ensuring adequate funding are critical pillars for the network's sustainability and effectiveness. "Communication to citizens" closely follows with 19 votes, highlighting the importance of transparent and engaging communication strategies to involve the broader community in CRFS governance. The importance of technology is also acknowledged, as reflected in the support for the "FoodE App," which garnered 8 votes, indicating a desire for a technological platform to facilitate communication and collaboration.

The stakeholders have focused attention on "Multi-stakeholder Engagement," with 18 votes, emphasizing the importance of involving diverse actors to ensure a comprehensive and inclusive approach. "Participatory Decision-making" and "Data and Knowledge Sharing" received 16 votes each, highlighting a shared commitment to democratic processes and collaborative information exchange within the network. Other crucial aspects include "Clear Leadership and Coordination" and "Capacity Building," both receiving 9 votes, emphasizing the need for effective governance and continuous skill development within the network. "Monitoring and Evaluation," with 3 votes, is considered an action that needs to be developed afterward.

Finally, the stakeholders' responses reveal a consensus on critical elements. With a predominant focus on collaboration and inclusivity, multi-stakeholder engagement, participatory decision-making, and knowledge-sharing emerge as foundational activities. The strong advocacy for supportive policies and adequate funding underscores the stakeholders' recognition of the structural prerequisites for long-term sustainability. Additionally, the emphasis on transparent communication, technological facilitation through the "FoodE App," and the need for clear leadership and coordination signal a commitment to effective governance and community involvement. These collective priorities form a robust foundation for the continued success and impact of the CRFS network, aligning with the overarching theme of defining sustainable exploitation routes for its ongoing and future actions.



5. Market-based tools

As mentioned in Chapter 1, the objective of this report is linked with the work carried out in T7.3.1 regarding the development of the exploitation plan of FoodE results. In D7.20, where the work carried out for the report is presented, the selected Key Exploitable Results (KERs) are strictly connected with the final objective of enlarging, sustaining, and valorizing the stakeholder's network on CRFS of the FoodE project. In this chapter, this is further explained and the connections are explored.

For the exploitation plan, the work has been carried out with the support of the Horizon Results Booster of the European Commission. The interesting connection with the work of the D7.21 is that two of the four FoodE Key Exploitable Results are strictly connected to the valorization and development of the stakeholder network of FoodE. The two mentioned results that underwent the exploitation analysis in D7.20 are the FoodE App and the FoodE Label. For the first result, the FoodE App was developed in WP3 by UAB, which is the partner that underwent the workshops with the HRB support service. This result was in the phase of implementation while the exploitation activities were carried out. Therefore, the exploitation phase was crucial for the work related to the Business Model development needed to guarantee the sustainability of the result. Briefly, the FoodE App is a tool created to mobilize and connect users and stakeholders to promote the sustainability of City Region Food Systems (CRFS) across Europe. Second, the beneficiary partner that worked on the exploitation plan of the second KER, the FoodE Label, is UAB and the FoodE Label has been implemented within WP5. During the activities mentioned in this report, the task designed for the implementation of the FoodE Label was not yet concluded. Therefore, the exploitation activities have helped the beneficiaries to reason about their intentions directly looking at the possible exploitation solutions and visions. Briefly, the FoodE Label is a certification driven by citizens, which evaluates the sustainability of initiatives based on economic, social, and environmental factors. It is relevant to mention that these two results indirectly might contribute to the final goal of keeping the stakeholder network alive and enlarging its scope.

5.1 The FoodE App

First, the FoodE App aims to connect different users and stakeholders to promote sustainable City Region Food Systems. In the report "The FoodE App business model" where the further exploitation opportunities based on the different target groups are analyzed and investigated by the UAB team, it is reported that the FoodE App's objective is to simplify the evaluation of initiatives, providing a quick sustainability score that includes the three pillars of sustainability (environmental, economic, and social) based on the fourth KER, the simplified assessment tool developed in WP2 by UNIBO. The app encourages users to engage with and evaluate local and sustainable CRFS initiatives through ten different indicators. What makes the FoodE app unique is its use of gamification – users earn points for frequent visits and submitting reviews – which seeks to create an active and motivated community involved in the project. Additionally, the app does not stop at user engagement, it also acts as a hub for collecting data related to stakeholders at a territorial level. This data can be used to identify and promote CRFS initiatives, tailor territorial policies, and inspire the development of new sustainable projects. One of the app's strengths is its widespread user base across Europe, forming a substantial network.



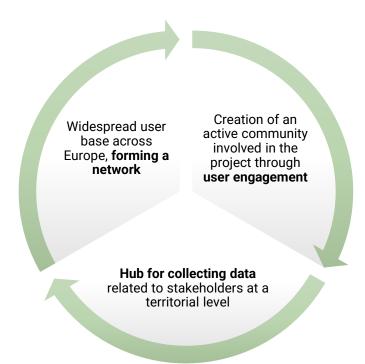


Figure 11: Why is the FoodE App involved in the valorisation of the stakeholder FoodE network?

5.1.1 The target groups for the 4 FoodE App business models

However, for a final and complete Exploitation Strategy, different possible target groups are explored in the report "The FoodE App business model" by UAB, and the four target groups identified for being addressed for the business models are the following:

• Consumers/citizens: the FoodE App would be tailored for consumers/citizens who want local and sustainable products and seek to check their reliability and feasibility.

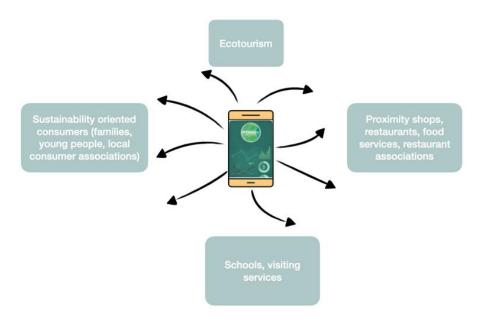


Figure 12: Consumers/citizens as a customer segment for the FoodE App (taken from "The FoodE App Business Model Report", UAB)

• **Cities**: in this case, the FoodE App would be customized for the use of the public administrations, e.g., municipalities, Milan Urban Food Policy Pact.



Figure 13: Cities as a customer segment for the FoodE App (taken from "The FoodE App Business Model Report", UAB)

• **Farmers**: the FoodE App would be used by farmers as part of their values (local, trustworthy, and sustainable products).

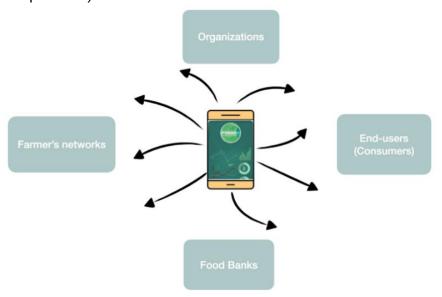


Figure 14: Farmers as a customer segment for the FoodE App (taken from "The FoodE App Business Model Report", UAB)

• **Researchers/academia**: the FoodE App prototype would be developed for a longer period for researchers.

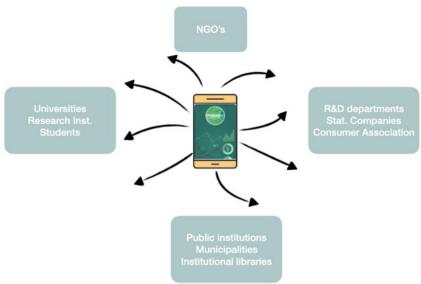


Figure 15: Research/academia as a customer segment for the FoodE App (taken from "The FoodE App Business Model Report", UAB)

5.2 The FoodE Label

The second mentioned KER of the D7.20 is the FoodE Label, which is one of the most relevant results developed within FoodE. The FoodE Label's unique proposition is that it is a certification driven by citizens, which evaluates the sustainability of initiatives based on economic, social, and environmental factors. This inclusive approach effectively mitigated conflicts of interest and facilitated the advancement of European, national, and regional sustainability objectives. The certification encompasses various value chain stages, from production to consumption. By focusing



on regional contexts, the label aims to enhance consumer awareness of the tangible impacts of purchasing certified products.

The FoodE label offers a certification basis to strengthen the promotion of local and sustainable regional initiatives and value chains. The inclusion criteria of the FoodE Label can be modified according to the region's needs, making them more exclusionary and restrictive. Every year a report will be produced to quantify the impact generated by the FoodE label in individual territories to make the positive impact tangible at the consumer level. The main target market for the FoodE Label is initiatives in horticulture that market their products within a limited geographical area (i.e. region), non-profit initiatives that support creating a local and sustainable food system (i.e. NGO). The target market would be the initiatives localized in a metropolitan area (i.e., a City with more than 1 M inhabitants). Given this, in these municipalities, higher interest in the label is expected due to the highest presence of consumer sensitivity to socio-economic and environmental concepts. In particular, the northern European consumer seems more interested in sustainable food than other consumers in the southern part. Indeed, the consumer in the southern part seems more interested in traditional food products linked to food cultural heritage than sustainable concepts (D7.20 - Exploitation plan).

Building a FoodE Label means certifying an entity, a production process, a product, or an initiative for its sustainability in a given city region, which indirectly means being identified as a member of the network on CRFS of FoodE. Therefore, the FoodE Label might be considered as a way to build, enlarge, and sustain a stakeholder network in different European City Region Food Systems. Consequently, through the successful exploitation of the FoodE Label, a big opportunity is also expected for the network on CRFS of FoodE which indirectly will benefit from its creation. Consequently, promoting a certification will have a big impact in incentivizing sustainability in urban food systems, building a big community working for the transformation of sustainable urban food systems that is finally recognized by consumers and public authorities. This means building trust in the FoodE stakeholders' community and making a stronger contribution towards its development

7. Scientific data valorisation

To conclude, this last paragraph is dedicated to the exploitation and valorization of the scientific knowledge and data collected within the last four years, given that many of the activities planned throughout the project have come to an end in month 48. Consequently, several of the working groups are now engaged in the process of scientific data valorization. This phase is important as it marks the transition from project implementation to communication and dissemination of research outcomes. We consider that various working groups within the project are at different stages of data valorization, reflecting the diverse nature of the research and tasks conducted. Some teams have successfully developed and published academic papers, while others are still working towards the submission phase. Finally, some results are still undergoing refinement, with plans for subsequent submissions.

The valorization of scientific data extends beyond the immediate project timeline, offering enduring benefits to both the academic community and the stakeholders involved. Papers and research results emerging from FoodE will contribute to the scholarly body of knowledge and serve as valuable resources for future research initiatives, providing a foundation for discussions. The dissemination of results through publications facilitates the sharing of insights, methodologies, and best practices with a wider audience, encouraging a collaborative approach to addressing challenges in sustainable food consumption.



Finally, data valorization is also important to maintain and strengthen the stakeholder group developed during the project. The ongoing dissemination of research outcomes keeps stakeholders informed about the latest advancements and insights, promoting continuous engagement and connection to the project's objectives. Beyond academic publications, the project's partner and stakeholders are going to discuss the results in future events, congresses, and academic conferences, ensuring a sustained presence in scholarly and professional forums even after the official project conclusion. This extended engagement not only benefits the academic community but also reinforces the enduring impact of the FoodE initiative on the broader stakeholder network.

8. References

Saint-Ges V., Fargue-Lelièvre, A., Gabarrell, X., Stringari, S., Tonini, P., Petruzzelli, M., Cirone, F., De Menna F., Vittuari M., D2.1 Inventory of emergent BMs and review of innovative bio-economy WP2 Methodological framework development and case studies sustainability assessment Dissemination level Public Document type Report Lead partner UniBO.

Fernandez, J.P., de la Cruz-Modino, R., Medina, J.A.B., Santana Talavera, J., Fariña, R.J., Bruquetas, J.R., Orsini, F., Reynaud-Desmet, L., Fox-Kämper R., Specht, K., D3.1 Catalogue of networking and Cross Pollination. WP3 Cross pollination Dissemination level Public Document type Report Lead partner HCA

Mihail-Tanasov, A., Zellenrath, X., Reynaud-Desmet, L., Samoggia, A., D3.4 - Catalogue of Networking and Cross Pollination Initiatives in CRFS. WP3 Cross-Pollination. Dissemination level Public Document type Report Lead partner HCA

Musso, V., Orsini, F., Samoggia, A., Gabarrel Durany, x., Monticone, F., Petruzzelli, M., Niero, A., Tonini, P., Dehmel, N., Nolde, E., Petit Boix, A., Vittuari M., D7.20 Exploitation Plan WP7 Dissemination & Exploitation Confidential, only for members of the consortium (including the Commission Services) Document type Report Lead partner HCA

Dees, M., Padberg, L., Mihail Atanasov A., D7.5 Stakeholder mapping WP7 Dissemination & Exploitation Dissemination level Public Document type Report Lead partner HCA

Brouwer, H., Woodhill, J., Hemmati, M., Verhoosel, K., van Vugt, S., Brouwer, H., ... van Vugt, S. (2016). The MSP Guide: How to Design and Facilitate Multi-Stakeholder Partnerships. The MSP Guide: How to Design and Facilitate Multi-Stakeholder Partnerships. Practical Action Publishing Ltd. https://doi.org/10.3362/9781780446691.009

Kang, H., Roggio, A. M., Luna-Reyes, L-F., Governance of local food systems: Current research and future directions (2022). Journal of Cleaner Production, Volume 338, 130626, ISSN 0959-6526.

Roosendaal, L., Herens, M., de Roo, N., Stuiver, M., Pittore, K., Soma, K., Hetterscheid, B. (2020). City Region Food System Governance; Guiding principles and lessons learned from case studies around the world. Wageningen Centre for Development Innovation, Wageningen University & Research. Report WCDI-20-118. Wageningen.