



CULTiVATE

COSTS AND BENEFITS OF FOOD SHARING IN MILAN

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1. TECHNICAL REFERENCES

Project Acronym	CULTIVATE
Project Title	CULTIVATE: Co-Designing Food Sharing Innovation for Resilience
Project Coordinator	Trinity College Dublin Anna Davies daviesa@tcd.ie
Project Duration	January 2023 – January 2026 (48 months)
Deliverable No.	N/A
Dissemination level*	
Work Package	WP 3 – Cost-benefit analysis of food sharing initiatives
Task	T3.1 – Costs, investments, challenges, drivers, and success factors to establish and maintain FSLs
Lead beneficiary	Partner number 11 (ULUND)
Contributing beneficiary/ies	N/A
Due date of deliverable	N/A
Actual submission date	N/A

*PU – Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)

SEN – Sensitive, limited under the conditions of the Grant Agreement

Classified R-UE/EU-R – EU RESTRICTED under the Commission Decision No2015/444

Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444

Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444

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1.3. ABBREVIATIONS

FSI – food sharing initiative

MUFPP – Milan Urban Food Policy Pact

NGO – non-governmental organisation

Polimi – Politecnico di Milano

WP – work package

2. INTRODUCTION

2.1. CULTIVATE PROJECT AND THIS REPORT

This report presents findings from the case study on food sharing in the city of Milan, Italy, which was performed as part of the project CULTIVATE: Co-designing Food Sharing Innovation for Resilience: <https://cultivate-project.eu/> in June 2024 – November 2024. CULTIVATE (2023–2027) is a solution-based project funded under the European Union's Horizon Research and Innovation Programme, which seeks to create resilient and healthy urban and peri-urban (UPU) food systems under Grant Agreement No. 101083377. The CULTIVATE project involves 20 consortium partners: research institutes, municipalities, food sharing initiatives, communication specialists, and art collectives. The CULTIVATE project (Voytenko Palgan and Sadovska, 2023) defines *food sharing* as collective acts around food across the food system, namely:

- growing or composting together,
- cooking and eating together,
- redistributing surplus food,
- sharing seeds, tools, food, space, and knowledge (see section 2.4).

This report contributes to Task 3.1 in Work Package (WP) 3 of the CULTIVATE project, which aims to investigate costs, investments, challenges, drivers, and success factors to establish and maintain urban and peri-urban food sharing initiatives (FSIs). This investigation builds on the conceptual framework, developed from a systematic literature review on food sharing and enriched with topics from several compatible disciplines (Voytenko Palgan and Sadovska, 2023).

2.2. OVERVIEW OF MILAN AND ITS FOOD SHARING PROFILE

Milan is the second-largest city in Italy, hosting 1.4 million people and 3.2 million people in the metropolitan area (Wikipedia, 2025). It is a major European hub for finance, fashion, and design (Wikipedia, 2025), and an important northern Italian centre for redistribution of fresh produce (Davies et al., 2024). Milan faces typical challenges of a growing metropolitan area, including food insecurity, food waste, and the need for sustainable urban development. These made Milan emerge as a leader in urban food policy innovation, particularly through launching the **Milan Urban Food Policy Pact (MUFPP)** in 2015 (City of Milan, 2015).

The manual mapping of FSIs in WP2 of the CULTIVATE project resulted in 107 FSIs in Milan, with a slight domination of FSIs redistributing surplus food (31 FSIs or 29%), followed by cooking and eating FSIs (29 FSIs or 27%), growing FSIs (24 FSIs or 22%), and multifunctional FSIs (23 FSIs or 21%) (Davies et al., 2024). The average density is 11 738 inhabitants per FSI, with more populated districts hosting a higher number of FSIs, and the growing number of FSIs located outside the city centre (Davies et al., 2024). Among all FSIs, knowledge (63%) and food (61%) were the most shared resources, followed by sharing of meals (31%), skills (23%), plants (18%), and seeds (17%) (Davies et al., 2024). The most popular modes of sharing included gifting (68% of all FSIs), followed by selling (37%), collecting (24%), and bartering (17%) (Davies et al., 2024).

A cornerstone of Milan's food sharing ecosystem is its Food Waste Hubs, community-based centres designed to collect and redistribute surplus food (MI2, MI7). These hubs operate through partnerships between the municipality, local NGOs, supermarkets, and food banks. Their primary focus is recovering surplus food from supermarkets, wholesale markets, company canteens, and school cafeterias (MI7). The food is still safe and edible, but would otherwise be discarded due to overstock, expiration proximity, or logistical reasons. Such food is collected and distributed through a variety of FSIs.

Several FSIs in Milan are deeply integrated into various urban regeneration projects. For example, the Lorenteggio Market has been transformed into a social integration centre. At the same time Cascina Nosedo, a peri-urban farmhouse, is being developed into a hub for innovation and sustainable agriculture (URBACT, 2022). These projects highlight Milan's holistic approach, where food becomes a catalyst for social inclusion, environmental sustainability, and economic development.

2.3. POLICY LANDSCAPE AFFECTING FOOD SHARING IN MILAN

Milan initiated MUFPP in 2015, coinciding with the Universal Expo hosted in the city (City of Milan, 2015). The MUFPP is an international agreement signed by over 200 cities worldwide, aiming to develop sustainable and inclusive food systems. Its actions are structured into six areas (City of Milan, 2015):

- ensuring an enabling environment for effective action (governance);
- sustainable diets and nutrition;
- social and economic equity;
- food production;
- food supply and distribution; and
- food waste.

One of the MUFPP actions on food governance is particularly relevant for FSIs as it explicitly focuses on identifying, mapping, and evaluating local initiatives and grassroots food movements to transform best practices into relevant programmes and policies.

In July 2014, the City of Milan and the Cariplo Foundation launched **the Milan Food Policy** (City of Milan Resolution 25/201523) (Matteini et al., 2024). The Policy has five priorities: ensuring healthy food access, promoting sustainable food systems, reducing food waste, fostering education and awareness, and enhancing scientific research in agri-food sectors

(City of Milan, 2025). The Cariplo Foundation was established in 1991. It is Italy's largest philanthropic organisation (Matteini et al., 2024). It prioritises social welfare and economic development, and supports research, education, healthcare, the arts, and vulnerable populations. As part of its mission, the Cariplo Foundation prioritised food waste reduction and combating food poverty, leading to its support of the Milan Food Policy (Matteini et al., 2024).

Encouraged by the policy, the city authorities developed a network of private donors, foundations, and philanthropic entities to fund food sharing activities. The City of Milan (Figure 1) plays crucial role in coordinating efforts and providing spaces for many FSIs. With its goal to reduce food waste by 50% by 2030 (URBACT, 2022), the Milan Food Policy has been instrumental in supporting *FSIs for redistributing surplus food* by creating food waste hubs across Milan. These hubs recover surplus food from supermarkets, canteens, and wholesale markets and redistribute it to vulnerable populations through local charities and social markets (Figure 2). The hubs are supported by a network of organisations, including the university Politecnico di Milano and the Cariplo Foundation.

The Milan Food Policy also supports establishing and operating *social supermarkets*, where families can purchase food using a points-based system (MI12, MI18) (Figure 2). This system ensures equitable access to food and promotes social inclusion. *Educational initiatives* under the food policy raise awareness about food waste reduction and sustainable food practices. These programmes target schools, families, and the broader community, fostering a culture of sustainable and responsible consumption (MI19).

Regarding policies relevant to *growing food together* in Milan, the main legal framework is at the regional level of Lombardy. As such, **Regional Law #18/2015** outlines objectives and strategies for urban and peri-urban gardens, **Regional Law #21/2021** covers broader urban and peri-urban agriculture, including large-scale and individual gardening activities, and **Regional Law #35/2017** supports social agriculture, recognising its potential to aid social inclusion and employment for vulnerable individuals through therapeutic and farming activities (Matteini et al., 2024). These regulations also allow for commercial applications, integration with welfare services, and access to funding (Matteini et al., 2024).

At the municipal level, Milan delegates urban garden management to its nine local administrative units (“municipi”). However, the **City’s General Urban Plan** (Piano di Governo del Territorio) only classifies urban gardens as green spaces, mainly focusing on landscape and farmland management without detailed provisions for gardening practices (Matteini et al., 2024).

2.4. FOOD SHARING INITIATIVES AND ACTORS IN FOCUS

To study food sharing in Milan within the CULTIVATE project, the researchers employed various social science methods (see Chapter 3 for details). Interactions in the form of online and in-person interviews, site visits, guided tours, in-situ observations, workshops, and reflexive discussions with key food sharing actors in Milan formed the core of the field research, documented in this report. Specifically, the researchers interacted with FSIs that facilitate different ways of food sharing following the CULTIVATE definition described below. Many of these FSIs are also involved in sharing food space, tools, knowledge, and seeds, for instance:

- **FSIs that grow and/or compost together:** an urban community garden run by volunteers using municipal land and buildings GiambellOrto; an urban community garden run by volunteers on a derelict public land Orti di Via Padova; an urban garden Coltivando run by staff of the Politecnico di Milano on its campus.
- **FSIs that promote cooking and eating together:** a garden bistro Rob de Matt providing job training to vulnerable people; a social restaurant Project Ruben offering dinners for a symbolic price to vulnerable people.
- **FSIs that support (surplus) food redistribution:** municipal food waste hub Gallarate, which redistributes food collected from local markets and shops to vulnerable residents; a food bank at food waste hub Isola, which collects surplus food from supermarkets and companies, redistributing it to charities working with vulnerable people; a food redistribution initiative SOSpesa by the Politecnico di Milano, where volunteers collect



Figure 1: Learning about the policy landscape affecting food sharing in Milan at the City of Milan offices

surplus food from a market and local shops, pack and provide food bags to vulnerable households; municipal food waste hub Loreto.

- **Multifunctional FSIs involved in several food sharing activities:** a company So.De, which collaborates with NGOs to recover food from supermarkets and redistribute it to those in need using cargo bikes; a social inclusion project Mosso, which is a multifunctional meeting space including a restaurant; a local community hub and shop Ortoemporio, which focuses on preserving and selling seasonal, organic and local produce; a 17th century farmhouse Cascina Cuccagna used for culture and participation, which includes a vegetable garden, a restaurant and a cooking school, and focuses on locally sourced produce; IBVA, which is an NGO supporting immigrant population with language courses, social housing and food, and hosts a social supermarket, a food hub, a kitchen and an online food market. For convenience, these FSIs will be analysed within the three other FSI types, i.e., growing and composting together, cooking and eating together, and redistributing surplus food, departing from their dominant activities.

Apart from FSIs, the MRL team also interacted with **researchers** from three universities in Italy, i.e., the Politecnico di Milano, University of Milan, and University of Trento, and **representatives from the City of Milan**, who work on food policy and MUFPP.

Further details on the MRL approach and methods to collect and analyse data are presented in Chapter 3

Figure 2: A shelf in a social supermarket Solidando in Gallarate food waste hub, Milan



3. MOBILE RESEARCH LAB APPROACH

Mobile research lab (MRL) to collect and analyse data on food sharing in Milan was conducted by four researchers from Lund University (Yuliya Voytenko Palgan, Vera Sadovska, Oksana Mont, and Andrius Plepys) and one researcher from Trinity College Dublin (Jennifer Lyons) in June–November 2024. An MRL is an innovative research method with roots in ethnography. It is a collaborative process of conducting in-situ analysis by a research team that allows investigation of a study object, in this case food sharing, in its context. The research protocol for the CULTIVATE project describes the MRL methodology for tracing costs, investments, challenges, drivers, and success factors to establish and maintain FSIs (Voytenko Palgan and Sadovska, 2023). The methodology for the MRL in Milan included four steps: desktop research, online interviews, field research, and data analysis. These are described in detail in the following sub-sections.

3.1. DESKTOP RESEARCH

The initial phase of the MRL involved extensive desktop research to gather background information and context about food sharing in Milan. This phase included:

Identification of key FSIs and food sharing actors: First, the research team utilised the map of 107 FSIs in Milan performed in WP2 of the CULTIVATE project in autumn 2023 (Davies et al., 2024). Second, the CULTIVATE partner, the City of Milan, and colleagues from IIIIEE research networks at the Politecnico di Milano informed the identification of key food sharing actors. Third, the research team utilised academic databases such as Scopus, Web of Science, and Google Scholar, and conducted keyword searches related to food sharing, urban commons, and sustainability. Official documents, municipal policies, and grey literature were also reviewed to identify key food sharing actors in Milan.

Literature review: A systematic review was conducted to synthesise existing knowledge on costs, investments, challenges, drivers, and success factors of FSIs. This review informed the conceptual framework guiding the MRL.

Document analysis: Municipal and regional strategies and regulations on sustainable and healthy food, food waste, and urban agriculture were analysed to understand the policy environment impacting FSIs.

Web and social media analysis: Online platforms, blogs, press releases, and social media pages of FSIs and key food sharing actors provided additional data on current activities, community engagement, and public perception.

3.2. ONLINE INTERVIEWS

The second phase involved eight online semi-structured interviews to gather qualitative data from key stakeholders. This phase was critical to understanding the nuanced experiences and perspectives of those directly and indirectly involved in food sharing. The procedures included participant selection, development of interview guides, interviewing, data organising, and management.

Participant selection: Key actors were selected based on their knowledge and engagement with food sharing and command of English (since translation was unavailable for online interviews). These included municipal representatives and academic experts. Snowball sampling was used to identify additional relevant participants.

Interview guide development: Semi-structured interview guides were created, focusing on themes identified in the conceptual framework (Voytenko Palgan and Sadovska, 2023). Questions were tailored to each participant's role and expertise.

Interview process: Each interview lasted between 60 and 75 minutes and was conducted via video conferencing. With consent, interviews were recorded and transcribed for analysis. Detailed notes were taken during each interview. Participants were briefed on the research objectives and their rights, including confidentiality and the option to withdraw at any time.

Data management: Field data, including notes, transcripts, and recording files, were pseudonymised and stored securely in accordance with ethical guidelines and data management protocol of the CULTIVATE project.

3.3. FIELD RESEARCH

Field research constituted the core of the MRL, involving sense-making experiences through in-situ observations, site visits, guided tours, workshops, reflexive discussions, and meal sharing activities with key food sharing actors in Milan during five days in September–October 2024. This immersive approach aimed to gather rich, contextual data on food sharing in Milan. The schedule and activities were meticulously planned to maximise data collection within the available timeframe (Table 1).

Site visits and participant observation: Researchers visited various FSIs that grow and/or compost together (Figures 3, 6, 7, 20, 24), those that promote cooking and eating together (Figures 8–12, 22), those that support (surplus) food redistribution (Figures 2, 5, 14–18, 21, 23, 25) and multifunctional FSIs engaged in different activities, often targeting social integration and community building (Figures 8, 10, 11, 13, 14, 15, 18, 20, 28, 29). Many of these FSIs also share food space, tools, knowledge, and seeds. Researchers visited organisations in the retail sector that support food sharing and sustainable food consumption in Milan (Figures 2, 11, 15, 23), offices of the City of Milan (Figures 1, 26), and premises of the Politecnico di Milano (Polimi) (Figure 4). MRL researchers also engaged with SOSpesa FSI (Figures 16, 17, 27), which is organised and run by Polimi researchers and volunteers. They collected surplus food (Figure 17) and packed food boxes for households' pick-up at Coperto municipal market (Figures 16, 27). Detailed field notes, photographs, and video recordings were taken, documenting the operational practices, challenges, and community interactions.

Workshops and seminars: MRL researchers co-organised and co-hosted a research and practice workshop on Sustainable Food Consumption in Cities together with Politecnico di Milano. Representatives from Lund University, Trinity College Dublin, Politecnico di Milano, University of Milan, City of Milan, and the University of Trento attended and presented at the workshop. The workshop facilitated discussions on preliminary findings and allowed for triangulation of data collected through other methods.



Figure 3: Study visit to urban community garden GiambellOrto, Milan

Engagement with stakeholders: The field research involved direct engagement with various stakeholders, from grassroots actors to municipal officials. In addition, representatives from the City of Milan, a researcher from Politecnico di Milano, and a researcher from the University of Trento joined the MRL research team on several visits. They provided inputs and reflections during the immersive activities. This multi-perspective approach ensured a comprehensive understanding of the food sharing ecosystem in Milan.

The schedule for the onsite fieldwork is provided in Table 1. Throughout the week, the researchers' interactions with diverse stakeholders provided a comprehensive understanding of Milan's food sharing landscape. The immersive field research enriched the data and strengthened the collaborative network, setting the stage for further analysis and dissemination of the findings.

Table 1: Schedule for the onsite fieldwork during the Mobile Research Lab in Milan

Colour legend	Growing food together	Cooking and eating together	Redistributing surplus food	Multifunctional FSI	Third party actor (city, university)
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
11.00-12.30 Meeting with the City of Milan	11.00-12.15 Meeting with a representative for Mosso and Loreto Food Waste Hub	10.00-12.00 Visit to IBVA	9.30-12.30 Sustainable Food Consumption in Cities: Research and Practice Workshop	10.00-12.00 Reflection session	
Food Policy Department (Food Poverty, MUFPP)	Mosso is a social inclusion project and a multifunctional space for people to meet (including a restaurant); Loreto Hub is one of the new food waste hubs in Milan	An NGO supporting the immigrant population with language courses, social housing, and food. It has a social supermarket, a food hub, a kitchen, and an online food market	Lund University, Trinity College Dublin, University Politecnico di Milano (Polimi), University of Milan, City of Milan, University of Trento	Lund University researchers meet, jointly reflect, and document their impressions from the MRL encounters	
13.30-14.30 Working lunch at Rob de Matt	12.30-14.00 Working lunch at Mosso	13.00-14.30 Working lunch at a restaurant in the city centre and a reflection session	12.30-13.30 Joint lunch for workshop participants	13.00-14.00 Interview about Sospesa and other FSIs by Polimi	
Rob de Matt is an FSI providing job training to vulnerable people (often facing psychological challenges) and young unemployed adults in a garden bistro	14.30-15.30 Meeting with Orti di via Padova and La Terra che non c'è	Lund University researchers meet, jointly reflect, and document their impressions from the MRL encounters	13.30-13.55 Walking tour for workshop participants at Bovisa Durando Campus of Polimi	14.00-16.00 Study visit and volunteer activity at Sospesa	
14.30-15.30 Visit to SoDe (Social Delivery)	An urban community garden run by volunteers on 2000m2 of a derelict public area in a multiethnic district to promote integration and biodiversity	14.30-16.30 Walking tour in Milan city centre	14.00-14.45 Guided tour at Coltivando	SOSPesa is an FSI by the University of Polimi, where volunteers collect surplus food from a market and coffee shops, pack and offer food boxes to households	

SoDe collaborates with NGOs to recover food from supermarkets and redistribute it to those in need. It focuses on the sustainable and socially responsible delivery of food and other goods.	16.00-17.00 Visit to Ortoemporio,	17.30-18.45 Meeting with a representative from Ernesto Pellegrini Foundation supporting Project Ruben	Urban garden run by Polimi staff on its campus	
16.00-17.00 Visit to Gallarate Food Waste Hub	Local community hub and shop focusing on preserving and selling seasonal, organic, and local produce	Project Ruben is a social restaurant offering dinners for one euro to vulnerable people	15.30-17.00 Visit to the Food Bank (Banco Alimentare, Lombardia) at Food Waste Hub Isola	
An FSI that redistributes food collected from local markets and shops to vulnerable residents	19.00-20.00 Guided tour at Cascina Cuccagna	18.45-20.00 Dinner at a social restaurant Ruben	The Food Bank collects surplus food from supermarkets and companies, redistributing it to charities that work with vulnerable people.	
18.30-19.30 Visit to urban garden GiambellOrto	A 17th century farmhouse used for culture and participation. A farmers' market, educational garden, library, macrame and plant shop, kitchen, bar, guesthouse, and a cooking school. Focus on locally sourced produce.	Lund University, Trinity College Dublin, representatives of GiambellOrto, and Project Ruben		
An urban community garden run by volunteers using municipal land and buildings in a deprived neighbourhood	20.00-22.30 Dinner at Un Posto A Milano Restaurant in Cascina Cuccagna			
	Lund University, Trinity College Dublin, City of Milan, University Politecnico di Milano			

3.4. DATA ANALYSIS

The final phase focused on systematically analysing the collected data to derive meaningful insights and conclusions. It included:

Coding and categorisation: Transcripts, field notes, and other qualitative data were coded using NVivo software. Initial analytical categories from the conceptual framework were used as a starting point (Sadovska et al., 2025), with additional codes emerging inductively from the data.

Thematic analysis: Themes related to business models, evolution and experiences, costs and investments, benefits and perceived value, challenges and risks, drivers and success factors, and motivations for food sharing in Milan were identified and analysed.

Triangulation: Data from different sources (desktop research, interviews, field observations, workshop reflections) were triangulated to validate findings and ensure reliability.

Report writing: The analysed data were synthesised into report sections and structured according to the MRL research protocol. The sections included an introduction to the city's food sharing profile, policy landscape affecting food sharing, FSIs and actors in focus, mobile research lab approach, detailed findings on each research theme, and summarising conclusions with implications and recommendations.

Figure 4: Research and practice workshop on Sustainable Food Consumption in Cities at the Politecnico di Milano



4. RESULTS

4.1. BUSINESS MODELS, EVOLUTION, AND EXPERIENCES OF FOOD SHARING INITIATIVES

4.1.1. FOOD SHARING BUSINESS MODELS AND ORGANISATIONAL FORMS

Milan has developed a diverse array of FSIs, representing different organisational forms and approaches to addressing food waste, social solidarity, and urban gardening. The FSIs in Milan vary in size, function, and governance, and include social enterprises, community-based organisations, state-led initiatives, and multifunctional circular economy models. The mapping of FSIs in WP2 of the CULTIVATE project showed that non-profit organisations were the most common organisational form in the food sharing with 64% of FSIs, followed by 29% charity, 18% network, 16% for-profit, and 1% public sector FSIs (Davies, 2024).

Previously, different associations managed their respective centres independently, resulting in a lack of integration and limited coordination, often leading to duplicated efforts, inefficiencies in resource distribution, and inconsistent service delivery across the city. The current *modus operandi* involves multiple stakeholders working together to create integrated systems, improving logistics, information sharing, and resource management. These stakeholders include private donors, business associations, foundations, philanthropic organisations, and universities. Philanthropic actors such as the Cariplo

Foundation and the Foundation of the Milan Football Club are particularly prominent in financing food sharing in Milan.

The Milan municipality often coordinates the network of stakeholders supporting food sharing in Milan. The collaboration started in 2016 and led to establishing the first pilot Food Waste Hub in the Isola neighbourhood in 2019 (Figure 5), followed by the Lambrate hub in 2020 (MI1). There are currently seven active **Food Waste Hubs** across different neighbourhoods of Milan, each facilitating the recovery and redistribution of surplus food (MI7). Food Waste Hubs are physical spaces where food from local supermarkets, street markets, canteens, and restaurants is collected, screened for quality, and stored. The food is then redistributed through social markets and local associations that support vulnerable populations. The hubs aim to create a diffused system where food can be collected closer to people, involving street markets, canteens, and restaurants in the redistribution process. The hubs benefit from secure funding and reliable infrastructures, which ensure their operation at larger scales and integration of nutrition programmes and various education activities.

Residents' associations play a key role in Milan's food sharing initiatives, particularly by managing urban community gardens. These associations are often supported by non-profit organisations and the local government, illustrating the collaborative and community-driven dimension of the city's food sharing ecosystem. Their activities contribute to food security and social inclusion, providing residents with access to gardening space and opportunities to engage in collective practices. Resources, responsibilities, and produce are typically shared among participants, with surplus food sometimes donated to local food banks. Examples such as GiambellOrto (Figure 3) and Orti di via Padova (Figure 7) demonstrate how grassroots initiatives operate within the broader network of food sharing, complementing municipally coordinated hubs and contributing to a decentralised, yet interconnected system of urban food redistribution.

Another essential form of Milan's food sharing infrastructure is **social supermarkets**. Social supermarkets redistribute surplus or near-expiry food to low-income households, thereby addressing food waste and social vulnerability. Operating on a membership basis, social supermarkets ensure targeted support while maintaining dignity and agency for users.

Their integration into the wider food sharing system allows them to benefit from centralised logistics and coordination, such as those offered by city hubs, while maintaining strong ties with local communities. Notable examples include the social supermarket in Gallarate Hub Solidando (Figure 2), which exemplifies how these initiatives contribute to Milan's multi-scalar and multi-actor approach to food sharing.

4.1.2. FOOD SHARING INITIATIVES THAT GROW AND/OR COMPOST TOGETHER

In Milan, FSIs that grow and compost food collectively promote environmental sustainability and foster community engagement and social cohesion through different activities in urban community gardens. Many of Milan's urban community gardens originated from grassroots efforts, often established in abandoned or underutilised urban spaces. Initially, these operated informally or without legal status, but some gained formal recognition over time. In the 1990s, only 10% of existing vegetable gardens in the city were legal, which has since improved, reflecting a convergence between insurgent social practices and growing municipal interest (Fedeli, 2016).

The City of Milan invested in urban agriculture to enhance citizen participation and address urban challenges. In 2012, the Milan City Council approved guidelines facilitating agreements with non-profit organisations to create new urban gardens, aiming to recover abandoned green areas and promote participatory territory management. These municipal community gardens, often referred to as "*orti urbani*", are typically managed by local administrations and are made available to citizens, usually seniors or retired individuals, for non-commercial horticultural use (Ruggeri et al., 2016). In 2016, there were around 200 community gardens in Milan, predominantly situated in repurposed or underutilised urban spaces, such as abandoned lots and derelict areas (Fedeli, 2016).

Apart from municipal community gardens, FSIs that grow food together in Milan are managed by other actors, such as academia, NGOs, or informal groups. One such example is the FSI led by Politecnico di Milano (Polimi), where the university sought to revitalise a

disadvantaged neighbourhood in the north of the city by involving the local community in urban gardening projects. In 2011, researchers from Polimi launched community workshops through Temporal Urban Solutions, involving 15 national students to understand local needs and aspirations better. This led to the development of a convivial garden Coltivando (Figure 6), designed in collaboration with the community. The garden's structure and layout were planned with active community involvement, ensuring that the project met local needs.

Initially, the project received significant support from the private sector, including donations of materials such as metal pieces for creating raised beds and a connected water system. Due to the chemical-laden soil in Milan, raised beds are essential for growing food safely. Over the years, the garden has become a hub for various community activities, including shared meals and brewing beer from locally grown hops:

"We do a lot of activities together like lunches ... through the years, we have hop for beer. We ask the bar close to the campus to do the beer from that hop." (MI5)

The produce, including fruits, vegetables, and flowers, is shared among the community, which is managed through a Facebook page: "...we share everything, it is not just fruits and vegetables but also flowers" (MI5). The FSI also participates in the city's Green Week, promoting green strategies and celebrating its annual birthday.

Another notable initiative is GiambellOrto (Figure 3), started in 2021 by the association Laboratorio di Quartiere, using municipal land. The project aimed to revitalise a neglected urban space in one of the city's vulnerable areas by engaging local residents in its cleanup and cultivation in a community garden. Beyond gardening, GiambellOrto is a hub for social cohesion, especially significant in the aftermath of the COVID-19 pandemic, providing a communal space for interaction and mutual support (StartupItalia, 2023).

GiambellOrto features no rigid hierarchy. According to employees, they "...would like to be informal" (MI13). Despite the challenges of operating as an informal group, the FSI thrived through co-governance and involving the community in decision-making:

“At the start, we completed a list of principles with the basics: we are growing things together; we made a map where we plant. It is important to accept this kind of imperfection; we decide altogether, we talk more than we plant.” (MI13)

Another urban community garden serving as a space for collective environmental action and urban agriculture for residents and sustainable practices in Milan is Orti di Via Padova (Fig. 7). The garden, occupying 2 300 m² of an old landfill, initially lacked a water connection. However, the city council later provided water, a fence, and a portable toilet, with additional funding from a private donor, the Cariplo Foundation. Today, a diverse group of volunteers, primarily retired people, maintains the garden, with ca. 20 volunteers visiting weekly. Despite initial challenges, the FSI has played an important role in community building, manifested in the collective action and informal organisation to practice urban gardening.

Another example of an urban garden in Milan, which is a part of a multifunctional space, is a garden at Cascina Cuccagna (Figure 8). Cascina Cuccagna is a Milanese farmhouse with a long history, dating back to the 17th century. The area has undergone significant urban regeneration, intending to create a space for sustainable living, community activities, and cultural events. Cascina Cuccagna features urban gardens where community members cultivate vegetables and fruits. These gardens constitute a component of a more extensive initiative aimed at fostering a reconnection between urban residents and nature, in addition to promoting local food production. Grupo Verde is a group of volunteers who collectively possess an allotment and meet every week to maintain the garden. The garden also functions as an educational space, hosting workshops for children and adults on horticulture and environmental awareness.

Urban gardens in Milan are illustrative examples of how Milan integrates food production into the urban landscape, promotes sustainability, and enhances community bonds. By involving residents in the planning and maintaining gardens, these FSIs ensure that the benefits of food sharing are widely distributed while rooted within the community.

Figure 5: Visit to a food bank at Food Waste Hub in the Isola neighbourhood of Milan

Cosa facciamo in Lombardia



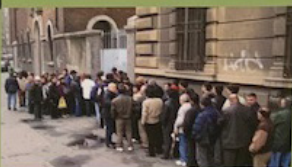
18.711
tonnellate di cibo
recuperato e distribuito

737
volontari stabili



1.247
strutture caritative
convenzionate

209.404
persone assistite



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4.1.3. FOOD SHARING INITIATIVES THAT PROMOTE COOKING AND EATING TOGETHER

Several FSI that promote cooking and eating together are present in Milan. Many focus on fostering community spirit and addressing social issues through shared meals. A few examples of these are briefly presented below.

Refettorio Ambrosiano is an FSI born from the World Expo Milano 2015, which recovers food and creates menus from the recovered items: “...each day they need to create menus very fast” (MI2). The space is designed to be homelike, cosy, and beautiful, providing meals to vulnerable populations such as homeless people. The FSI emphasises the importance of creating a welcoming environment where people can share meals and connect with each other.

Another example is an FSI Rob de Matt (Figure 9). It is an NGO founded in 2017 that supports individuals with psychological difficulties through food-related activities. It operates a restaurant and bistro in the Dergano neighbourhood, providing job training and employment opportunities for individuals with histories of marginalisation and disadvantage. The organisation focuses on recovery-oriented approaches, helping participants build confidence, develop interpersonal skills, and experience the tangible results of their work:

“With food we teach free lessons on psychological issues: they [participants] work in small groups and learn not to be afraid of being part of a group.” (MI10)

Through its kitchen activities, Rob de Matt engages both the “head and hands” (MI10), combining cognitive and manual work in a way central to effective job training. This method helps participants gain essential skills and self-confidence, unlike the exploitative dynamics often found in profit-driven kitchens and factories.

Beyond employment and job training, Rob de Matt is also active in community development, organising various events such as debates, book presentations, exhibitions, seminars, concerts, and performances. During the COVID-19 pandemic, the organisation was vital in addressing food insecurity, collecting essential goods, preparing and distributing meals, and providing food baskets to people in need. These efforts were supported by partners such as Croce Rossa Italiana and Fondazione Vodafone Italia.

Mosso is another social innovation hub in Milan that brings together diverse actors to promote community engagement, urban sustainability, and inclusive development through food-related initiatives. Its core objective is to foster social cohesion and regeneration by offering accessible spaces for cultural, educational, and entrepreneurial activities. Food plays a central role, functioning as a catalyst for dialogue, collaboration, and local transformation:

“Milan has a special role as it was at the forefront of social innovation. One of the most important topics is the topic of transformation. The food issue is very important, as it gives a chance to any type of organisation to operate in the society, it is universal, it is for everyone.” (MI14)

Mosso currently operates on a 6 000 m² site located in the backyard of Parco Scolastico, a former rehabilitation centre for children with health issues. The site, previously partially dismantled, was renovated with an 8-million-euro investment from the Cariplo Foundation. Today, Mosso hosts a variety of food-related activities, among other things, including community kitchens, a bistro (Figure 10), a bar, educational workshops, urban agriculture projects, and food distribution programmes. These initiatives are inspired by the principles from Expo Milano 2015 and align with the goals of MUFPP, emphasising the value of food in shaping equitable and resilient urban systems.

Ortoemporio is another FSI that promotes food sharing and community engagement through cooking and eating together. Located in the city council building, it serves as a showcase for the region's food excellence, selecting suppliers committed to environmental care and sustainable practices. The entry point is a shop with various fresh, seasonal, and

organic products, including fruits, vegetables, juices, and preserves. They also provide custom-made boxes combining different products for families and businesses. Above that, Ortoemporio has established the Ortoemporio Lab, a space available to residents and the neighbourhood community. The lab hosts various activities such as workshops for children, food transformation labs, presentations, and meetings with social and agricultural entities.

Another FSI that combats food poverty through eating together is Project Ruben (Figure 12), which was founded by the Pellegrini family with a successful background in the food catering business. Ruben operates a community kitchen and a restaurant to prepare and distribute meals for vulnerable individuals, such as households facing economic hardships, e.g., due to a sick leave of a family member or other life circumstances:

“We would like to be here because the poverty problem exists. We will change the characteristics of the project depending on the needs or the evolution of the problem.” (M19ab)

Six trained professionals operate the kitchen. Around 15 people, including kitchen staff and volunteers, engage with the visitors every night. All food is freshly prepared in the kitchen, and a high-quality three-course meal is offered on the menu. Adult visitors pay a symbolic price of one euro, while children eat for free. The option to choose from a menu and the nominal cost of dinner aim to provide a dignified dining experience:

“It is a feeling that person contributes something. It is not charity. They are not beneficiaries, they are contributors.” (M19ab)

Being supported by a robust private business with strong economic standing, the FSI has its high-quality premises, kitchen facilities, and secure food supplies with relatively low risks to its operations. Restaurant Ruben has 190 seats and can serve 250–300 people every evening. Its visitors are of different ages, genders, and ethnicities.

While the FSIs discussed in this section are just a few examples from a broader range of cooking and eating FSIs in Milan, they showcase the diversity of such initiatives. Beyond providing food, these FSIs foster community, promote social inclusion, and offer additional services such as education, environmental awareness, and professional skills training.

4.1.4. FOOD SHARING INITIATIVES THAT SUPPORT FOOD REDISTRIBUTION

Many FSIs in Milan focus on redistributing surplus food and reducing food waste. They are dependent on and usually operate in a network of donors, NGOs, retailers, professional cooperatives, other organisations, such as universities, and the city itself. Many FSIs in this category are embedded in Food Waste Hubs, which were developed through collaboration between the Milan municipality, Politecnico di Milano, and an industry

Figure 6: Urban community garden Coltivando on the campus of the Politecnico di Milano



association Assolombarda. The latter is an association of about 6 000 businesses in the provinces of Milan, Lodi, Monza, Brianza, and Pavia, employing more than 400 000 workers locally and several hundred thousand in the rest of Italy (Assolombarda, 2025).

“So, one of the big donors, one association of companies, one university, the city itself and the organisations... were... working on redistributions... together... to create the system.” (MI7)

The main activity of Food Waste hubs is to recover surplus or close-to-expiration food from local supermarkets, from fresh produce to long-term preserved food. Starting from the first hub in the Isola neighbourhood (Figure 5) in 2019 and the Food Waste Hub Lambrate in

Figure 7: Study visit to Orti di Via Padova, Milan



2020, there are currently seven hubs in Milan active in food redistribution. They screen the quality of surplus food, store it appropriately, and redistribute it through local associations and social markets.

IBVA (Istituto Beata Vergine Addolorata) is a longstanding charitable organisation in Milan, dedicated to supporting the vulnerable population through various social services and initiatives (Figure 13). In addition to managing food banks that collect surplus food from retailers and redistribute it through social markets and other channels, IBVA also offers social and welfare services, educational programmes, emergency assistance, and community engagement activities. Its efforts help reduce food waste while providing

Figure 8: Cascina Cuccagna – a multifunctional space in a 17th century farm in Milan city centre – Credits Maurizio Fiori



essential support to vulnerable communities. IBVA operates social supermarkets Solidando in two locations: one in Gallarate Hub, one of the seven Milan's Food Waste Hubs (Figure 14), and another on IBVA's premises (Figure 15).

Solidando, established in 2017, is the first social market in Milan providing food emergency services, including a social market, a food bank, a kitchen, and an online market for food and other goods (Figures 2, 15). It serves ca. 1 000 families, allowing them to purchase food and other essentials using a points-based system instead of money. Points are allocated based on the number of family members and their economic and social conditions. IBVA also offers an online market where people can order food and have it delivered to their homes.

Another food redistribution initiative (FSI), launched in 2022 by the Design Department at the Politecnico di Milano, is SOSpesa (Fassi and Meroni, 2023). In SOSpesa, volunteers collect food for free or purchase it at discounted prices from local shops (Figure 17), the central wholesale market, or receive food through private donations. They then pack the food into bags and distribute them to people in need at the SOSpesa premises located at Off Campus NoLo in the Coperto municipal market (MI3, MI22) (Figure 16). These food bags contain a nutritionally balanced mix of surplus food, including fruits, vegetables, meat, pasta, rice, and other essentials. Each bag weighs 7-8 kg and is tailored to the needs of individuals or families (MI22).

"SOSpesa emerged from a specific event, the pandemic. But it can become something else; it is now different from what it was at the start. It is more than giving food to people in need; it is also about trying to understand how to work with these people. We do not want to create a service that is just giving." (MI5)

"To give free food is one thing, but to give dignity to exit from a municipal market and not have to queue for your box on the street. Because all people can see you while you are waiting. Maybe you are going inside to take gelato and collect your free bag of food." (MI4)

One more FSI in the category of food redistribution is RECUP. It is a social promotion association active in Milan and Rome. It is a unique FSI where volunteers, who are also beneficiaries, collect surplus food from markets and share it among themselves based on bartering. RECUP operates in various open-air markets in Milan (e.g., Mompiani, Martini, Termopili, Catone, Oglio, Valvassori, Tabacchi, Osoppo, Papiniano, and Benedetto Marcello), where volunteers collect unsold food from merchants, sort it, and redistribute it on-site for free. The association encourages active participation from volunteers who also benefit from the recovered food (RECUP, 2025). This approach creates a spontaneous and convivial atmosphere, promoting social cohesion and reducing food waste.

Sharing space with the earlier discussed FSI Rob de Matt, the initiative So.De (Social Delivery) focuses on sustainable and socially responsible delivery services. So.De operates a cargo bike delivery service that covers all Milan postcodes (Figure 18). The initiative has about 30 clients. It has mainly gained significant visibility through collaborations with IKEA and versatile media campaigns: “...we have a singer, an actor, and we have big visibility on the media” (M111). The campaigns’ visibility has been one of its biggest strengths, helping to promote the project’s goals widely. Food delivery is covered by So.De operations as well: it

Figure 9: Rob de Matt, a food sharing initiative promoting cooking and eating together while offering job training and employment for people with psychological difficulties





Figure 10: Sharing lunch with CULTIVATE project partners and informants at Mosso bistro in Milan

collaborates with NGOs to recover food from supermarkets and redistribute it to those in need using cargo bikes. So.De's project was timely, addressing mobility, security, and climate change issues. The initiative aims to reduce environmental impact by using regular and cargo bikes for deliveries, which helps lower emissions and traffic congestion.



Figure 11: A kitchen at the back of the Ortoemporio shop

4.2. COSTS, INVESTMENTS AND FUNDING OF FOOD SHARING INITIATIVES

4.2.1. GENERAL COSTS OF FOOD SHARING INITIATIVES

All FSIs in Milan, encompassing growing, cooking and eating, and food redistribution, face the problem of balancing their mission and objectives with the accompanying direct and indirect costs. The direct costs are tangible financial expenditures, while indirect costs can be capital assets or volunteers' time. Regardless of the type, covering the costs is essential for the operational sustainability and logistical feasibility of all activities of the FSIs.

Usually, most FSIs rely on a mix of paid staff and volunteers. Volunteers' efforts help reduce the direct costs of paid personnel. However, FSIs still have to cover the tangible costs of daily operations, which often include expenses related to hiring personnel for strategic

management. For example, IBVA employs 29 people and has around 200 volunteers (MI18). The salaries for these employees are covered by renting out buildings owned by the foundation. Similarly, Project Ruben has a kitchen staff of 6 professionals and about 140 volunteers (MI19ab). These costs include salaries, training, and sometimes benefits for the staff involved in managing these FSI.

The infrastructure required for all FSI types incurs significant costs. These include expenses for facilities, equipment, furniture, and the maintenance of spaces. For instance, Orti di Via Padova needs to buy wood, an irrigation system, containers, and a shed (Figure 19). Additionally, utilities such as electricity, water, and gas are ongoing costs organisations must cover (MI 15). Rob de Matt pays 6000 euros per month in rent for their space, which is covered mainly from the sales of food and beverages in their bistro (MI 10). Mosso also incurs costs for maintaining its space and equipment, with an annual rent of 40 000 euros (MI 14).

Compliance with food safety regulations and other legal requirements adds to the costs of all FSIs. Organisations must ensure that they adhere to these regulations, which may involve

Figure 12: Sharing a dinner at restaurant Ruben – a food sharing initiative serving meals to vulnerable people in Milan



additional training, certification, and periodic audit expenses. For instance, Gallarate Hub ensures that all volunteers are trained and responsible for the social market, adhering to strict regulations (MI 12).

Other costs include those related to marketing and visibility, which are essential for attracting donations and support from the community. For example, Cascina Cuccagna participates in public tenders and receives grants to support various projects, including renovating of its premises (MI 17). Additionally, there are costs associated with the maintenance and repair of equipment, insurance, and other operational necessities. For example, Orti di Via Padova spends ca. 1000 euros on training volunteers and paying a trainer to help volunteers build a collaborative teamwork – something that became needed post-COVID-19 pandemic (MI 15).

4.2.2. FOOD SHARING INITIATIVES THAT GROW AND/OR COMPOST TOGETHER

Milanese FSIs that specialise in growing and composting face specific costs associated with their operations and often encounter financial challenges crucial to their continuity.

The initial setup of urban gardens and community farms involves significant costs. Key requirements include assessing the available space and, in many cases, testing soil quality to determine suitability for planting. Infrastructure typically involves raised beds, vertical gardening structures to support plants, and containers to maximise space efficiency. One of the initiatives shares:

“We had to use flower beds because the soil in Milan is contaminated... not necessarily toxic, but affected by urban chemicals that make it unsuitable for food cultivation.” (MI15)

To establish the garden, GiambellOrto was started with funds from an EU project, amounting to 3000 euros (MI 13). Orti di Via Padova received funding from the Cariplo



Figure 13: Study visit to IBVA - An NGO supporting immigrant population with language courses, social housing and food. It has a social supermarket, a food hub, a kitchen, and an online food market.



Figure 14: Study visit to Gallarate Food Waste Hub, Milan



Figure 15: A shelf in the social market Solidando close to IBVA premises

Foundation to purchase infrastructure such as wood, an irrigation system, containers, and a shed (MI 15). These initial investments are essential to create a functional growing space.

Though not so significant as the initial setup costs, ongoing maintenance and utility costs are a constant financial concern for growing FSLs. These costs include seeds, soil, water, electricity, and fertilisers expenses. Orti di Via Padova benefits from the municipality covering water expenses and maintenance of the toilet, while electricity is supplied by a cooperative selling renewable energy, keeping costs relatively low at around 100 euros per month (MI 15). However, other maintenance tasks, such as repairing equipment and maintaining the garden, still incur costs. GiambellOrto operates as a completely volunteer-driven initiative, where the public can come and take the harvest, reducing some operational costs but still requiring funds for such essential supplies as water and seeds (MI 13).

Other costs include the legal and administrative aspects of running a growing FSL. For example, GiambellOrto struggled to stay informal while applying for funding through Laboratorio di Quartiere (MI 13). Orti di Via Padova also installed two bathrooms, which involved one-time expenses (MI 15).

4.2.3. FOOD SHARING INITIATIVES THAT PROMOTE COOKING AND EATING TOGETHER

In contrast to gardens that are often entirely run by volunteers, cooking and eating FSIs typically have several paid staff members. The complexity of operations, which require specialised skills (e.g., collection, transportation, sorting, cleaning, preparation and serving of meals), as well as the need to manage a network of contributors (e.g., shops that donate food, staff that cooks, organisations that collect meals or guests that eat) are key factors in this regard. Rob de Matt employs workers through social services. The city council partially funds their salaries for six months (MI 10). Despite this support, expenses are high: *“At the end of the year, it is a cost. We do not take out money.”* (MI10). Project Ruben has a kitchen staff of trained professionals, with the addition of volunteers (MI 19ab). Mosso employs 15 people, including 10 vulnerable individuals, and faces challenges in covering salaries through its revenue streams (MI 14).

Regarding operations, cooking and eating FSIs need to purchase food to prepare meals for sharing. Purchased food usually complements donated food to increase the variety of meals that can be cooked. In case of Project Ruben, their guests pay one euro for a dinner, but the cost of making a dinner is estimated between five and seven euros: *“Everything is cooked here, nothing pre-cooked”* (MI19ab). The costs are covered by the Pellegrini Foundation, which provides cooking products.

4.2.4. FOOD SHARING INITIATIVES THAT SUPPORT FOOD REDISTRIBUTION

One of the primary costs associated with FSIs supporting food redistribution is the need for specialised food transportation and storage equipment. Different types of food require different handling and storage solutions. For instance, fresh food needs refrigeration and specific treatment, which in turn requires investment in appropriate equipment. For



Figure 16: CULTIVATE researchers volunteering to collect, sort, and pack food bags with the SOSpesa food sharing initiative at the municipal market Coperto



Figure 17: So.De (Social Delivery) focuses on sustainable and socially responsible delivery



Figure 18: Collecting food from cafes and shops for redistribution through the SOSpesa initiative at the Coperto municipal market in Milan

example, the Food Bank at Hub Isola manages fresh food, which requires a fridge and other specialised equipment (MI21). Similarly, Gallarate Hub has invested in a large fridge to store fresh food and meat: “*We renovated the space. Also bought a huge fridge*” (MI12). These FSIs often need to purchase and maintain several types of logistical equipment to manage different food categories, which is a significant financial burden.

For the FSIs redistributing food, another substantial cost is related to the integration and unification of software systems used by different organizations up and down the supply chain. The need to harmonise these systems with food donors and receivers of donations, to streamline operations and improve efficiency is crucial, but expensive. For instance,

the Food Bank at Hub Isola uses software to serve about 15 charities weekly: *“We have a business analysis system, which is software, for the charities”* (MI21). This integration helps to manage better food stocks, track donations, and coordinate distribution.

As with cooking and eating, the FSIs that redistribute food incur costs when purchasing certain products. Smaller initiatives can maintain their operations primarily through the generous food donations, with minimal expenditure on purchased items. SOSpesa receives surplus fruits and vegetables free of charge from the local municipal market (MI3). These products form the foundation for the food bags that volunteers of SOSpesa prepare (Figure 17). However, to diversify the content of the basket, this FSI purchases milk and flour from a local supermarket. In the context of larger actors, such as social supermarkets, purchasing a variety of items is essential to ensure the shelves remain well-stocked. IBVA spends 300 000 euros annually to buy food from the wholesale market to maintain the quality and variety of food distributed.

4.2.5. SOURCES OF FUNDING FOR FOOD SHARING INITIATIVES

Food sharing initiatives in Milan rely on private donations, public grants, corporate sponsorships, and in-kind contributions to fund their activities. The following sections detail the various funding mechanisms that sustain these initiatives.

Private donations play a crucial role in funding FSIs in Milan, as one of the respondents explained:

“Without private funds, we would not be able to survive. We also applied to calls for applications, public funds, but a lot of private funds.” (MI12)

Many FSIs receive financial support from individual donors, philanthropic entities, and private foundations. For example, the Coltivando community garden receives funding from Politecnico di Milano for managing the area, although the garden aims to be self-sufficient and community-supported (MI5). Additionally, initiatives like SOSpesa rely on private



Figure 19: Growing food together at Orti di Via Padova, Milan

donations through crowdfunding platforms, which the City of Milan often matches if the fundraising target is reached (MI22).

Public grants and municipal support are significant sources of funding for FSIs. The City of Milan provides resources such as money, space, and coordination for the network of food hubs. For example, related to IT infrastructure: *“There was software developed for the food bank, they tested it and got it as a donation from the developer”* (MI1). The municipality also offers tax reductions (TARI) to businesses that donate food, incentivising food donations and supporting the reduction of food waste. Furthermore, the municipality pays salaries for social workers involved in initiatives like Rob de Matt. There are also funds from the regional level dedicated to the logistical needs of FSIs: *“Normally, the region, where Milan is,*

provides the annual grant for people to update their machinery, and transportation means” (MI1).

Corporate sponsorships and partnerships are essential for the sustainability of FSIs. Organisations like Ter Dezon create partnerships with supermarkets and fruit and vegetable markets to collect surplus food (MI12). Assolombarda, a regional association representing private companies, facilitates direct contact with large retailers interested in donating surplus food (MI17). Additionally, the Pellegrini Foundation provides food and financial support for initiatives like Project Ruben (MI19ab).

In-kind contributions, such as equipment, software, and services, are also vital for the operation of FSIs. For instance, the Cariplo Foundation funded infrastructure for community gardens, including buying wood, irrigation systems, and containers (MI15). Organisations also receive in-kind support from local shops and the wholesale market, which donate surplus food and discounted products (MI22).

Some FSIs generate revenue through commercial activities to support their operations. Rob de Matt, for example, covers its rent and other expenses primarily from the sales of food and beverages in its bistro (MI10). Similarly, Cascina Cuccagna hosts design and fashion weeks, rents out space for business events, and participates in public tenders to ensure its commercial viability (MI17). For others, the revenue generated only covers minimal expenses to cover the purchase of food:

“The heavier boxes cost 35 euros. Where does this money go? It all goes to the sellers. We are working to make it work economically because we have some private donations, but we need to find continuity with donations” (MI1).

4.3. BENEFITS AND PERCEIVED VALUE OF FOOD SHARING INITIATIVES

4.3.1. FOOD SHARING INITIATIVES THAT GROW AND/OR COMPOST TOGETHER

The growing FSIs in Milan demonstrate the multifaceted benefits of urban agriculture. They not only contribute to food security by producing fresh, locally grown produce but also create green spaces that improve the urban environment and enhance community engagement.

One key benefit of growing FSIs is their ability to unite people and strengthen community bonds. These projects often involve collective management and participation, which fosters a sense of ownership and collaboration among community members. One participant noted, *“The main idea is to make people work together, stay together, and create space for elderly people”* (MI5). This communal aspect is particularly valuable in urban settings, where social isolation can be a significant issue.

Growing FSIs offer educational opportunities and promote sustainable growing practices. Projects like Mi Coltivo, which encourages younger generations to adopt healthy diets through educational vegetable gardens in public school courtyards (UNA, 2021), are prime examples. Such initiatives teach children about the importance of healthy eating and involve them in growing food, thereby instilling a sense of responsibility and environmental stewardship. The educational value of urban community gardens is noted by one of the respondents:

“When you see the people coming to the campus from the neighbourhood. Also, the students are welcome to come to the site.

Some schools in the neighbourhood bring kids to educate them to Coltivando.” (MI5)

4.3.2. FOOD SHARING INITIATIVES THAT PROMOTE COOKING AND EATING TOGETHER

Cooking and eating FSIs in Milan have contributed to social cohesion, skill development, and promoting sustainable food practices, making them an integral part of the city’s food sharing ecosystem. These initiatives provide a platform for individuals to come together, share meals, and learn new skills. They not only address food insecurity but also create opportunities for combating loneliness, increasing social interaction, and building strong communities.

One of the primary benefits of cooking and eating FSIs is their ability to foster social inclusion and community engagement. Programmes like the Co-cooking lab, which combines meal recovery with skill-sharing, exemplify this approach. These FSIs provide a space where people from diverse backgrounds gather, cook, and share meals, fostering a sense of belonging and mutual support. One of the respondents noted: *“It was a tool to meet the people”* (MI3). Similarly, another respondent described the aspirations of their organisation:

“We are with the community, we foster the community, and it is more connected to our values, and this is what we do.... I take care of the wellness of the community and figure out what the community needs. It is a longer journey”. (MI14)

This communal aspect is particularly valuable in urban settings, where social isolation can be a significant issue.

Additionally, cooking and eating FSIs offer valuable educational opportunities and promote sustainable food practices. For instance, the Reffetorio Ambrosiano project recovers surplus food and transforms it into nutritious meals for vulnerable people. This

project addresses immediate food needs and educates participants about food waste reduction and sustainable cooking practices. One respondent highlighted the project's impact, stating:

"The idea was to create more homelike, beautiful space to share with each other and give meals to vulnerable populations, e.g., homeless people" (M12).

The complementary social value of these FSLs is social integration and training: *"It is integration of people from different social backgrounds, training vulnerable people for a job" (M14).*

Moreover, cooking and eating FSLs often serve as a gateway to broader social services and support networks. For example, Project Ruben (Figure 20) uses food sharing as a tool to connect with people in need and provide additional support, such as psychological counselling and job training. One representative from Project Ruben explained:

"For us, it is a tool to get in touch with people in need, be able to talk and interact with them, and perhaps find ways to help them to get out of food poverty" (M19ab).

Project Ruben organises various events and activities to engage the local community and raise awareness about food poverty. These activities help foster a sense of solidarity and support among community members. This holistic approach ensures that participants receive comprehensive assistance, addressing their food needs and other aspects of their well-being.

4.3.3. FOOD SHARING INITIATIVES THAT SUPPORT FOOD REDISTRIBUTION

Food redistribution initiatives in Milan have been instrumental in addressing food waste and ensuring food security for vulnerable populations. These FSIs involve collecting of surplus food from supermarkets, markets, and other places and redistributing it to those in need. The collaborative efforts between the municipality, universities, and various organisations have created a robust system that reduces food waste and supports social welfare.

One of the primary benefits of FSIs that promote food redistribution is the significant reduction of food waste. The Food Waste Recovery and Redistribution programme, which includes local supermarkets and logistics hubs, has effectively decreased food waste in the city. This programme not only addresses environmental concerns but also ensures that surplus food reaches those who need it most. It helps *“reduce food waste and combat food insecurity in the city”* (MI2).

FSIs are active contributors to food waste reduction. For example, RECUP aims to reduce food waste by recovering unsold food from fruit and vegetable markets (RECUP, 2025). The recovered food is sorted and redistributed to anyone who wants it, including the volunteers. This model fosters a sense of collaboration and community among diverse groups, creating intercultural and intergenerational connections. RECUP recovers nearly 20 tonnes of food per week, which would otherwise be discarded. This effort helps improve food security for ca. 40 000 people annually and contributes to reducing greenhouse gas emissions by saving 169 tonnes of CO₂ each year (Casson et al., 2024).

FSIs that support food redistribution in Milan address food poverty and the social exclusion of specific population groups. The Gallarate hub, for instance, focuses on children and teenagers. In addition to providing food for families in need, it organises sports and social activities to engage children and integrate them into the community (MI12). This

holistic approach ensures that young people are nourished and supported in their social development.

Similarly, IBVA targets migrants who have official status and permits to stay in the country, distinguishing itself from many other charities that assist undocumented immigrants (MI18). By focusing on this specific social group, IBVA can more effectively address their unique needs (Figures 2, 15, 21). The FSI emphasises providing a sense of dignity and choice to its users, allowing them to shop for food using a social card with points, much like regular customers:

“A supermarket has regular shelves and trolleys, where families can shop for free (using the social card with points), according to their desires, needs and with the dignity of true customers, also being able to access an assorted variety of fresh products – from bread, fruit and vegetables to fridge products – which make it a unique food aid garrison” (MI18).

This approach not only meets their nutritional needs but also fosters a sense of normality and respect.

4.3.4. BENEFITS AND PERCEIVED VALUE OF FOOD SHARING FROM THE MUNICIPAL PERSPECTIVE

Milan’s FSIs have demonstrated significant benefits from the municipal perspective, including environmental sustainability, social solidarity, and enhanced urban resilience. The city’s proactive approach and collaborative efforts have set a benchmark for other cities to follow, showcasing the potential of food sharing as a tool for sustainable urban development:

“There was a focus on food, you know, and so all around the world, there was a big hype around reducing waste and creating value out

of the food waste. And so, the city of Milan wanted to be the centre of this worldwide speculation about it.” (MI1)

From the perspective of the City of Milan, one of the key benefits of local FSIs is the reduction of food waste, as one municipal representative noted:

“The ultimate goal is to make the most of the local [food] recovery from local supermarkets that operate in the same area and [organise] the timely distributions to the organisation that helps the poor in the same area.” (MI9)

The Food Waste Recovery and Redistribution programme, which involves local supermarkets and logistics hubs, has significantly decreased the amount of food waste in the city. This programme not only addresses environmental concerns but also contributes to poverty reduction by ensuring that surplus food reaches vulnerable populations (MI9).

Moreover, establishing social markets within Food Waste Hubs has provided a dignified way for individuals and families to access food. These markets are organised like regular supermarkets but are accessible only to vulnerable people with vouchers. This approach not only meets the immediate food needs of these populations but also fosters a sense of normality and dignity. A municipal official highlighted this aspect by underscoring that, *“having your own vouchers means a completely different usage of resources because you are involved, engaged as if you were a common consumer”* (MI1).

4.3.5. BENEFITS AND PERCEIVED VALUE OF FOOD SHARING FROM THE ACADEMIC PERSPECTIVE

The involvement of academic institutions, such as Politecnico di Milano, has further enhanced the effectiveness of Milanese FSIs. The university’s work on impact evaluation and analytics has provided valuable insights into the Food Waste Recovery and Redistribution programme’s outcomes, particularly in waste reduction and poverty

alleviation. This collaboration has strengthened the city's ability to monitor and improve food sharing efforts. One university representative stated:

"The university works on the impacts of the system, especially on the waste reduction side. It works with the donor company to show their impacts on the waste reduction side, but also what the impacts are on poverty reduction." (MI4)

This analytical approach has helped refine and optimise food sharing practices, ensuring they are both effective and sustainable.

From the academic perspective, FSIs in Milan have provided a rich ground for research and practical application, particularly in the sustainability, social innovation, design, and community engagement (MI20). Universities, such as Politecnico di Milano, have played a pivotal role in evaluating and enhancing the impact of FSIs. Their involvement has contributed to the academic understanding of food systems and provided tangible benefits to the community.

Figure 20: Restaurant of Project Ruben before dinner opening



Academic institutions highlight that FSIs have fostered active participation and engagement within the community. FSIs like RECUP, where beneficiaries volunteer to collect and distribute food, exemplify this participatory model. A university representative described RECUP as “*very interesting – this is a bartering FSI... [with] active participation*” (MI2). Such models not only address immediate food needs but also empower individuals by involving them directly in the process, thereby enhancing their sense of agency and community belonging.

Additionally, academic institutions have contributed to developing innovative food sharing models that integrate educational and social components. For instance, the Co-cooking lab combines meal recovery with skill-sharing and social enterprise (MI2). This project is a social enterprise where meals, skills, and spaces are shared. Such FSIs provide valuable learning opportunities for students and community members, fostering a culture of sustainability and social responsibility.

4.4. CHALLENGES OF FOOD SHARING INITIATIVES

4.4.1. GENERAL CHALLENGES OF FOOD SHARING INITIATIVES

FSIs face a range of general challenges that impact their operations. One of the primary challenges is the coordination and collaboration among various stakeholders. Ensuring effective engagement and coordination among municipalities, NGOs, private donors, and foundations is complex. The fragmentation of operators and the need for a cohesive approach to address food poverty and food waste management are the challenges the municipality and many FSIs recognise. Tackling this fragmentation was a driving force behind the creation of Food Waste Hubs (MI1). At the same time, each Food Waste Hub currently operates independently with its own supply chain, leading to competition and a lack of collaboration. This fragmentation can hinder the overall efficiency and impact of FSIs.

Another major challenge is the unpredictability and variability of donations. FSIs rely heavily on donations of food, money, and time, but these donations are often hard to forecast. Seasonal peaks and fluctuations in the quantity and type of surplus food can exceed the capacity of FSIs to manage and redistribute effectively. Additionally, the quality of donated food can vary, with supermarkets and individuals sometimes donating products of lower value. This unpredictability makes it difficult for FSIs to plan and maintain a stable supply of nutritious food for beneficiaries.

Logistical issues also pose significant challenges to FSIs. Different types of food require different transportation solutions and specialised equipment. For example, managing fresh food from supermarkets or company canteens requires refrigerated trucks, which are expensive and not affordable for all FSIs. The high cost of logistical equipment and the need for specialised infrastructure can strain the financial resources of FSIs.

Moreover, privacy concerns related to beneficiary data can complicate the integration of systems and hinder the efficient management of food distribution (MI18). These concerns arise from the need to protect sensitive information about the individuals and families who receive food assistance, but they also create challenges. For example, every single delivery

Figure 21: A stand with fresh fruits and vegetables at IBVA's social supermarket Solidando



is linked to a beneficiary, but the data about these beneficiaries is protected, making it challenging to create a unified system. Above this, the need to protect beneficiary data can lead to fragmentation among FSI. Each organisation may use different systems and processes to manage its data, resulting in a lack of integration and coordination. The City of Milan faced challenges in creating a citywide scheme where different organisations could run a hub with a unified system.

Volunteer engagement is another critical challenge. While volunteers are essential for the operation of any FSI, there is a generational shift in volunteering patterns. Older, retired individuals who traditionally formed the backbone of volunteer efforts are gradually retiring from volunteering, and younger generations prefer flexible, short-term engagements. This shift can lead to a shortage of stable, long-term volunteers, impacting the continuity and reliability of FSIs. Additionally, the need for continuous training and coordination of volunteers adds to the operational complexity.

4.4.2. FOOD SHARING INITIATIVES THAT GROW AND/OR COMPOST TOGETHER

FSIs that focus on community gardening and urban agriculture encounter several challenges. Many community gardens in Milan are situated in abandoned or derelict areas, often along busy roadways, open public spaces, parks, or former industrial sites. Only a small percentage of these gardens have formal agreements and legal status, with many operating informally or illegally. This limited access to legally recognised land poses a significant barrier to establishing and expanding community gardens.

Securing continuous funding is a challenge for the gardens as well. These projects often operate on limited budgets and face difficulty securing consistent funding. GiambellOrto managed to stay informal and prefers minimal rules (MI13), making it challenging to secure formal financing. Coltivando receives some funding from Polimi for managing the area and boosting communication (MI3, MI22), but this budget is limited to hardware and services, not salaries. The salaries come from research teams, e.g., the EU and national

projects, highlighting the reliance on external funding. Orti di Via Padova experienced financial difficulties, including a 1 700 euros debt on the balance sheet, which covered costs for electricity and insurance (MI15). The high cost of maintaining garden equipment and infrastructure, coupled with the need for ongoing financial support, can strain the resources of these FSIs. Moreover, the lack of funding can hinder the ability to expand and improve the gardens, limiting their potential impact on the community.

Organisational challenges also pose barriers to the success of growing FSIs. Coordinating activities and managing the diverse needs of volunteers and participants can be complex. For instance, Orti di Via Padova faced challenges in matching volunteers with professionals and ensuring effective collaboration (MI15). Conflicts within volunteer groups and the need to explain processes and tasks to new participants can consume significant time and energy. For Coltivando, the involvement of students in community gardening projects has been limited despite the garden's location on the university campus:

"It is kind of a good experience for the side of community engagement, but the involvement of the students is missing. We did several courses on how to engage the students more, but it was not that successful because the students spend most of their time on the campus and do not want to spend their leisure time digging the soil on the campus." (MI5)

Such a lack of engagement from some population groups can limit the reach and effectiveness of growing FSIs.

Community gardens in Milan must contend with environmental factors such as soil quality, possible soil contamination, and weather conditions. These factors can affect the health and productivity of the garden. Although several growing FSIs have been found to cultivate fruit, vegetables and herbs in the urban soil (Figure 22), they are aware of the risks associated with contamination. They are interested in soil quality testing (MI13).

4.4.3. FOOD SHARING INITIATIVES

THAT PROMOTE COOKING AND EATING TOGETHER

Specific challenges for cooking and eating FSIs are related to the complex nature of their operations. Many of the Milan's cooking and eating FSIs prioritise social integration alongside their food sharing goals, leading to the employment of individuals seeking to enter the job market (MI10, MI14). This poses a significant challenge in terms of coordination and management of various activities and the need for competences that go beyond those required for running a social canteen. For instance, Rob de Matt runs a bistro where people with mental health difficulties can gain the skills to return to the workforce (MI10). To fulfil this purpose, Rob de Matt employs social workers who act as tutors and role models, teaching participants how to respect schedules and deadlines while gaining professional cooking skills. However, the absence of adequate professional preparation among workers can complicate this process. Similarly, Mosso faces challenges in the management of its activities and services. These require continuous effort and effective communication between coordinators, staff, volunteers, and supporting organisations (the municipality and private donors) (MI14).

Ensuring food quality and managing the logistics of food delivery are ongoing challenges that require careful planning and resource allocation. For example, Project Ruben is committed to serving high quality, delicious, restaurant-level dinners with regular menu variations at the lowest possible price (one euro). This requires finding cheap but decent quality ingredients, getting them to the restaurant quickly to preserve their freshness and preparing a three-course dinner with a target net cost of 5-7 euros per meal. Many FSIs strive to acquire fresh food such as vegetables and greens to provide nutritious meals to people in need, but managing such food is complicated and expensive:

“If you receive fresh food, it comes with needs, you know, refrigeration and different treatment. You need different equipment from the organisation and still manage this food. So this is a challenge because every organisation has to have three types of

logistical equipment for three different types of food, which is very expensive for them to run and to buy.” (MI1)

The challenge of ensuring the quality of the food often comes together with the need to comply with food safety regulations. In Milan, food safety regulations are implemented by various local authorities, including the Ministry of Health, the Ministry of Agricultural, Food and Forestry Policies, and local health departments. To comply with various regulations, FSIs must manage and control food through the whole chain (collection or purchase of food, transportation, sorting, preparation, and serving). Ensuring that food is stored, prepared, and served at the correct temperatures is crucial. Additionally, FSIs must navigate complex regulations and ensure that all staff are adequately trained in food safety. This includes regular training on maintaining proper hygiene standards and food safety protocols, and ensuring that food handling and preparation meet regulatory standards.

4.4.4. FOOD SHARING INITIATIVES THAT SUPPORT FOOD REDISTRIBUTION

FSIs supporting food redistribution in Milan face complex challenges that span logistical, financial, regulatory, and organisational dimensions. One of the most pressing issues is the complexity of handling different types of food. Long-shelf-life items like canned goods are relatively easy to manage, but fresh or prepared foods require refrigeration and specialised handling (Figure 25). FSIs must invest in multiple types of equipment, which are expensive to purchase and maintain (MI12). Not all organisations can afford this infrastructure, limiting their ability to accept and redistribute perishable food. This is especially problematic during the summer months, when food spoils more quickly and donations drop significantly: “During the summer it is a little bit different because we have like really low donations... the food goes bad really quickly.” (MI3)

Another major challenge is the unpredictability and uneven distribution of food donations. Donations are difficult to forecast and often come in seasonal peaks, sometimes

overwhelming the capacity of food hubs. Moreover, the quality and nutritional value of donated food vary significantly. Supermarkets and individuals increasingly donate less valuable products, and the nutritional mix of available food often makes it difficult to assemble balanced food boxes: “People’s donations are less... even supermarkets are giving less valuable products.” (MI1). Some Food Waste Hubs, like Gallarate, attempt to guide users toward healthier choices by assigning point values to food items, but this requires additional educational efforts and resources.

As discussed in section 4.4.1, coordination and data sharing among redistributing organisations also present significant barriers. Each Food Waste Hub in Milan typically operates as an independent entity with its own supply chain, leading to fragmentation and competition rather than collaboration. Privacy regulations that protect beneficiary data hinder efforts to unify systems, such as shared software platforms. This makes it difficult to track and coordinate food distribution across the city. Additionally, organisations like IBVA report difficulties in maintaining regular communication with social services and other NGOs (MI 18), complicating beneficiary management and service delivery.

Finally, administration and resource management are ongoing concerns of FSLs that support food redistribution. The administrative burden of managing thousands of beneficiaries, applying for municipal funding, and maintaining compliance with food safety regulations stretches the limited capacity of these organisations. Every six months, IBVA re-evaluates the economic situation of the 1 000 families it supports (MI18). Although it is a tedious and resource-demanding process, it is necessary to provide targeted support for families that need it.

4.5. RISKS FOR FOOD SHARING INITIATIVES

4.5.1. GENERAL RISKS FOR FOOD SHARING INITIATIVES

FSIs in Milan face risks related to governance, continuity, and institutional fit. Universities or municipalities initiate some FSIs, which makes them well-positioned to experiment but not to manage long-term service delivery. As a result, there is often a lack of clarity about who will take over once the pilot phase ends.

Innovative food sharing practices such as food bartering or informal redistribution may not be fully supported by existing laws, meaning that specific initiatives operate in grey regulatory zones. The same is true for the expiration date of the products that are donated for sharing, where it is possible to give them to people: *“Some products are possible to eat, they are not harmful, even after the expiration date”* (MI21). This legal ambiguity can discourage participation and limit the ability to scale or replicate successful models.

There is also a broader structural risk of co-optation. As interest in food sharing grows, there is a danger that grassroots initiatives will be absorbed or overshadowed by larger corporate or digital platforms. This can dilute their social mission and reduce community control over food systems.

4.5.2. FOOD SHARING INITIATIVES THAT GROW AND/OR COMPOST TOGETHER

Growing FSIs in Milan, while offering environmental and educational benefits, are vulnerable to various risks. Prominent among them is spatial insecurity. Many community gardens use land that is not permanently allocated for food growing purposes and may

be reclaimed for urban development projects: *“The garden faces risks such as potential relocation due to new development plans, including a new metro line and a library”* (MI13).

Environmental constraints also pose a risk for the operation of urban gardens and farms. Some gardens are situated on contaminated land, making traditional cultivation unsafe. While hydroponic systems offer a workaround, they require technical expertise and financial resources that are not always available.

Volunteer engagement is another concern, both as a current challenge and a future risk. Many groups have struggled to rebuild cohesion and commitment among their members post-pandemic. Training and team-building efforts are necessary to overcome this risk,

Figure 22: Growing salad and kale in urban soil in GiambellOrto community garden, Milan



but costly: “We spent 1000 euros on training volunteers... to help them work together again post-COVID” (MI15).

Additionally, the informal nature of many gardening projects can lead to governance gaps, where no single entity is clearly responsible for decision-making or conflict resolution.

4.5.3. FOOD SHARING INITIATIVES THAT PROMOTE COOKING AND EATING TOGETHER

FSIs that promote shared cooking and eating face specific financial and infrastructural risks. These projects often require substantial upfront investment in renovations, equipment, and compliance with health and safety regulations. Sometimes, the costs exceed available funding, leading to debt or long-term financial strain: “We paid more for the renovation than we got from the Cariplo Foundation... we have a debt” (MI14).

There is also a persistent uncertainty around governance and ownership. Many of the spaces where FSIs are located are developed in partnership with public institutions or philanthropic foundations. Still, it is not always clear who should take responsibility for their long-term management:

“We also needed to decide whether the City council should keep investing in the social side of it, e.g. designing the library, social services, or giving it to the associations. Who is responsible for redesigning the space? How can we sustain the space in the long run?” (MI14)

In addition, these FSIs are often embedded in rapidly changing urban environments. Gentrification, demographic shifts, and rising rents alter the needs and composition of the local population, making it more challenging to maintain relevance and community engagement.

4.5.4. FOOD SHARING INITIATIVES THAT SUPPORT FOOD REDISTRIBUTION

FSIs that support food redistribution in Milan face a complex set of risks that threaten their operational stability and long-term sustainability. One of the most pressing issues is the decline in both financial and in-kind donations. While these initiatives have traditionally relied on surplus food from supermarkets and monetary contributions from individuals, both sources have become less reliable. As mentioned earlier, supermarkets are increasingly donating lower-quality products, and individuals are less inclined to give money, especially in the aftermath of the pandemic and amid the rising living costs.

Another significant risk is regulatory complexity. Strict food safety laws limit what can be redistributed and how. For example, some organisations are not permitted to process food, which restricts their ability to repurpose or extend the shelf life of donated items:

“We cannot cut or process food. There are mechanisms that are more complicated. It is dry food, which we try to clean.” (MI12)

Moreover, there is a risk of overexpansion of FSIs. As demand for food support grows, some organisations are tempted to expand rapidly. However, this can lead to burnout, logistical breakdowns, and a decline in service quality. One FSI noted that even a small increase in food prices can have a disproportionate impact when scaled across large numbers of beneficiaries: *“We add 1000 families... and 2 euros more per box makes a big difference”* (MI18).



Figure 23: Refrigerated storage of tortellini pasta and shelf storage of preserved milk in Solidando social market at Gallarate Food Waste Hub, Milan

4.6. DRIVERS AND SUCCESS FACTORS FOR FOOD SHARING IN MILAN

4.6.1. INSTITUTIONAL LEADERSHIP AND POLICY FRAMEWORK

A key driver of food sharing in Milan is the proactive role of the City of Milan, particularly through the development of a comprehensive food policy (Figure 24). This policy, initiated around the time of the 2015 Expo, positioned Milan as a global leader in food sustainability. The city's commitment is evident in establishing structured programmes such as the Food Waste Recovery and Redistribution Programme and the local food hubs: *“The City of Milan is doing a lot of programmes, but most of the involvement is with the food waste redistribution.”* (M11).

These programs by the City of Milan are operational and serve as models for other cities: *“So what we are actually concentrating on and offering the other cities as a best practice is food waste and redistribution programme called ‘local hubs’* (M11). The municipal leadership has also fostered collaboration among key stakeholders, creating a stable and systemic approach to food sharing in Milan.

4.6.2. COLLABORATIVE MULTI-STAKEHOLDER ECOSYSTEM

Milan's food sharing landscape is shaped by a collaborative ecosystem involving public institutions, academia, private actors, and civil society, which is instrumental for the success of municipal food waste policies. Such a multi-actor model enhances the effectiveness and longevity of FSIs by pooling diverse resources and expertise.

“The Food Waste Recovery and Redistribution programme started a few years ago as the pact of main actors in the city. It includes the main university, which works on analytics and impact evaluation of the systems, main donors – banking foundation, and industry association.” (M19)

This collaboration is not only strategic but also moral, with industry associations encouraging food companies to participate through a sense of social responsibility:

“[I]ndustry association... was very important in the beginning to push the food companies to take part in the programme, it is moral

*persuasion: “if you are a food company, apply for this programme.”
(MI1)*

4.6.3. COMMUNITY ENGAGEMENT AND VOLUNTEERING

Another significant driver is the strong culture of volunteering among the population of Milan. Volunteers are central to the daily operations of many FSIs, contributing time, skills, and local knowledge (Figure 25). Their involvement fosters a sense of ownership and solidarity within the community and translates into community engagement activities:

“There is a strong committed group of volunteers, very organised, they shift every day or once or twice a week, and they’re very well organised and they give you their time, skills and knowledge.” (MI1)

Some FSIs specifically focus on the neighbourhoods with a higher number of immigrants and those with high unemployment rates: *“We try to have volunteers who speak different languages, e.g. Spanish, Arabic, to make people more comfortable to communicate with us” (MI3).*

In some initiatives, volunteers are the beneficiaries, creating a participatory model that blurs the line between giving and receiving: *“The people who volunteer are the users themselves. I volunteer to collect food and take food for myself” (MI2).*

4.6.4. HYBRID MODELS OF SUPPORT

Milan’s FSIs combine food redistribution with broader social services such as education, employment support, and cultural activities (Figure 28). These hybrid models enhance the impact of food sharing by addressing multiple dimensions of social exclusion. When describing one of the FSIs, it was noted:

“So it is a full circle of products that put together people,... volunteers and also create a variety of different options for the organisation and the families and individuals.” (MI12)

Similarly, another FSI emphasises their comprehensive strategy:

“The access point is this common need... of food, but we offer a different layer of services. We can help... every single person or family in many different ways” (MI18).

Another example of this approach is the FSI Project Ruben. It integrates food provision with job training and psychological support, aiming to create transitional pathways out of poverty:

“The main idea of Ruben is to be transitory. The idea is to use food as an asset to put people into the path to get out of poverty.” (MI19ab)

4.6.5. ENVIRONMENTAL AND EDUCATIONAL MOTIVATIONS

FSIs in Milan are driven by promoting and supporting environmental sustainability and food education. Initiatives such as urban gardens and community canteens offer educational cooking classes to promote awareness of how food systems function, healthy diets, and waste reduction. With this education some target children and adolescents:

“The aim is to encourage younger generations to adopt a proper, healthy diet through educational vegetable gardens in public school courtyards” (MI2).

Other FSIs target women in ethnically diverse neighbourhoods: *“She also teaches women how to cook with zero waste and how to prevent food waste.” (MI16).* These activities not only reduce food waste but also empower individuals with knowledge and skills, reinforcing long-term behavioural change.

4.6.6. BUILDING RESILIENCE IN CRISIS

The COVID-19 pandemic acted as a catalyst for expanding and formalising food sharing practices in Milan. Emergency responses evolved into permanent structures, demonstrating the resilience and adaptability of Milan's FSIs. Structural support from the municipality was an important driver in this process:

"We have the social solidarity programme: Elementary Protocol. It is important, but it is mainly focusing on challenges from COVID-19 but then remained as a protocol that is used." (MI1)

Even individual FSIs reacted quickly and efficiently during the pandemic lockdown: "We were making 400 meals per day. Red Cross was collecting the meals and serving them to homeless people" (MI10). This experience highlighted the importance of FSIs in crisis management and their potential to build more resilient urban food systems.

4.7. MOTIVATIONS FOR FOOD SHARING IN MILAN

4.7.1. COMBATING SOCIAL EXCLUSION AND RESTORING DIGNITY

A central motivation for many FSIs in Milan is the desire to address social exclusion and restore a sense of dignity to individuals experiencing poverty or marginalisation. FSIs such as Project Ruben (MI19ab) or SOSpesa (MI3) are explicitly designed not as charity, but as spaces of mutual respect and contribution.

By asking for a symbolic payment and offering high-quality meals in a beautiful setting, the Project Ruben reframes food assistance as a dignified experience. This approach is

particularly important for individuals who have recently fallen into poverty and may feel shame or discomfort in seeking help:

“[Donors] decided to focus on the group of population that was sliding into poverty... the feeling of shame was significant as they had never been in this situation before.” (MI19ab)

The importance of a dignified experience was also highlighted in the case of SOSpesa, which is purposefully located inside a municipal market building, where people collect their food bags similarly to regular grocery shopping (MI2, MI3).

Figure 24: Visit to the Food Policy Department at the City of Milan to discuss their work on urban food policy, sustainability and food sharing





Figure 25: Volunteering to prepare food bags with the SOSpesa food sharing initiative at the Monza municipal market in Milan, in Off Campus Nolo of Polimi

4.7.2. EMPOWERMENT THROUGH SKILLS AND PARTICIPATION

Many FSIs in Milan are motivated by the goal of empowering individuals through active participation and skill development. Projects often integrate food sharing with training in cooking, gardening, or other practical skills related to job search and time management. This offers participants a pathway to greater autonomy and self-confidence. One of the co-founders of Rob de Matt explains the motivation behind the training:

“They use head and hands in the kitchen. This is important for job training. Often, many factories exploit them, and do not teach anything.” (MI10)

This empowerment is not limited to formal training. In initiatives like RECUP, volunteering becomes a form of participation and self-help (RECUP, 2025). This helps participants to learn a variety of skills.

4.7.3. CREATING INCLUSIVE AND SAFE COMMUNITY SPACES

Another strong motivation is the creation of inclusive, welcoming, and safe spaces where people from diverse backgrounds gather together. These spaces often serve multiple functions: beyond food provision, they offer cultural, educational, and social activities that foster community cohesion and mutual support (Figure 26).

The multifunctional FSI Orto Emporio (Figure 27), located in a neighbourhood with social challenges, works for women with different cultural backgrounds:

“Orto Emporio is not just about food. We also offer a range of activities, including using an old-style weaving machine... Additionally, we have two sewing machines available for those interested in sewing projects... We also have a library and a space dedicated to food sharing. It is also a safe space for women. It is a space where they can meet and do what they want.” (MI1)

These multifunctional spaces are particularly important for vulnerable groups, such as women, migrants, or older people who may otherwise lack access to supportive environments outside their homes. Gallarate Hub has a social supermarket and a space for children and teenagers to interact. This Food Waste Hub is well-placed at the heart of one of the densely populated neighbourhoods, making it easily reachable for local residents. They have a schedule for sport and educational activities for children of different age groups.



Figure 26: Upcycling corner at the repair workshop at Mosso community centre in Milan



Figure 27: A space for sewing and weaving at Ortoemporio food sharing initiative

5. CONCLUSIONS

Milan's food sharing ecosystem stands out as a dynamic and evolving landscape shaped by strong municipal leadership, a robust policy framework, cross-sector collaboration, commitment to systemic change and a deeply rooted culture of civic engagement. Since the launch of the Milan Urban Food Policy Pact in 2015, the city has positioned itself as a global reference point for urban food governance, embedding food sharing into broader strategies for sustainability, social inclusion, and urban resilience. The city's experience offers valuable insights for other urban areas seeking to build resilient and equitable food systems.

The city's FSIs are diverse in form and function, ranging from food redistribution hubs and social supermarkets to community gardens and shared kitchens. This diversity reflects Milan's holistic approach to food sharing, where food is not only a resource to be redistributed but also a medium for education, empowerment, and community building. Integrating FSIs into urban regeneration projects and social services further demonstrates their potential to contribute to inclusive and sustainable urban development.

A key strength of Milan's FSIs lies in their collaborative governance model. The municipality plays a central coordinating role, but the system's success depends on the active participation of universities, private companies, philanthropic foundations, and civil society. This multi-actor ecosystem enables the pooling of resources, knowledge, and legitimacy, allowing FSIs to scale their impact and adapt to changing needs.

At the same time, Milan's FSIs face several persistent challenges. These include the unpredictability of donations, the complexity of managing perishable food, the need for specialised infrastructure, and the difficulty of sustaining volunteer engagement in the long term. Regulatory constraints and spatial insecurity, particularly for informal or experimental initiatives, also limit the potential for innovation and growth. Moreover, the risk of overextension and the fragmentation of systems highlight the need for continued

investment in coordination and capacity-building. Addressing these challenges requires innovative solutions, effective collaboration, and sustainable funding models to ensure the long-term success and impact of FSIs.

Despite these challenges, the benefits of food sharing in Milan are substantial. FSIs contribute to reducing food waste, improving food security, and fostering social cohesion. They provide dignified access to food, create inclusive spaces for learning and participation, and offer pathways out of poverty through training and employment. From the municipal perspective, FSIs support policy goals related to sustainability and social welfare. From the academic perspective, they offer valuable opportunities for research, experimentation, and impact evaluation.

Milan's experience demonstrates the importance of embedding food sharing within a broader policy and institutional framework. It also highlights the value of hybrid models that combine redistribution with education, employment, and community development. As cities across Europe and beyond seek to build more resilient and equitable food systems, Milan offers a compelling example of how food sharing can be leveraged as a tool for transformative change

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Authors:
Vera Sadovska (ULUND);
Yuliya Voytenko Palgan (ULUND);
Andrius Plepys (ULUND);
Oksana Mont (ULUND)

Graphic design:
Nicoletta Gomboli (ICONS)

All photos taken by the authors



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INDUSTRIAL ENVIRONMENTAL ECONOMICS



Funded by the European Union

This report was developed within the CULTIVATE project funded
under Horizon Europe (Grant Agreement No. 101083377).