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Situated partnerships to face food waste within a neighborhood-based food redistribution service: The case of “SOSpesa”

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Abstract: Neighborhoods can be seen as experimental hubs where innovative design strategies are tested within local communities, addressing the social and environmental issues that impact global cities and promoting more equitable futures. In current times of crisis, amid substantial food waste, urban areas are witnessing a growing phenomenon of vulnerable groups suffering from food poverty, often coupled with limited access to fresh food. This scenario has led to a proliferation of diverse charitable initiatives, concurrently fueling researchers' exploration of sustainable food commons and circular systems. However, to foster community-driven development of such models, it becomes imperative to structure services around local, proactive, and situated stakeholder networks. This paper delves into the core insights concerning inventive design solutions to establish situated partnerships with the double aim of fighting food waste and supporting a neighborhood-centric circular food redistribution service for vulnerable residents, enacted by Off Campus Nolo (Polimi DESIS Lab) within Nolo neighborhood in Milan, Italy.

Keywords: circular food systems, food service, food commons, neighborhood-based

1. Introduction

1.1 New poverty and food insecurity: an overview

Since 2020, global agri-food systems have been put under great pressure and have been facing important challenges, worsening an already precarious and critical situation: starting from Covid-19 pandemic, passing by the Russian-Ukrainian conflict and the climate change process doing its course, along with inflation spreading everywhere. According to the Food and Agriculture Organization of the United Nations, the major drivers of food insecurity and malnutrition are in fact summed up into these categories: conflict, climate variability and ex-



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tremes, economic slowdowns and downturns, unaffordability of healthy diets, and underlying poverty and inequality (FAO, 2021). The consequences of these wicked problems are worsening even in Europe the socio-economic condition of vulnerable groups, such as migrants, women, elderly people and refugees, subsequently limiting their access to safe, good, healthy and sufficient food, and therefore adding numbers to the already high count of people under food poverty condition.

Food poverty is commonly and generally defined as the inability of individuals and households to secure an adequate and nutritious diet. When talking about this phenomenon, some differences between countries must be taken into consideration. In the commonly known as high-income countries, such as the European ones, the issue of acute food insecurity caused by food shortage is not an issue at the moment; instead, it keeps being severe in the global South, with scaring growing numbers into the Global Report of Food Crises of 2023, such as +34%, from 2021 to 2022, of people facing high levels of acute food insecurity, requiring urgent food, nutrition and livelihood assistance, and therefore being classified as IPC/CH Phase 3 or above or equivalent (the Integrated Food Security Phase Classification (IPC) provides, according to internationally-recognized scientific standards, 5 phases to assess the severity of acute food insecurity, from *minimal* to *famine*). Nevertheless, food insecurity is a growing issue in Europe and Italy: according to the *Survey on Income and Living Conditions* - EU-SILC of 2019, 10.8% of the European population suffered from food insecurity. In Italy, the percentage rises to 15.3% (Actionaid, 2021).

Even if Italy is considered a high-income country, the newest statistical report by CARITAS' network on the phenomenon of poverty (CARITAS, 2023) states that almost 1 resident out of 10 (precisely 9.4% of the Italian residents) suffers from severe poverty, counting almost 5.6 million people in a state of absolute poverty (defined as people who cannot afford essential goods and services). Fifteen years ago, this phenomenon involved just 3% of the population, demonstrating the real impact over time of the severe crises the world had to face that involved Italy too. A growing phenomenon is the one related to the "working poor" condition, especially seen in urban contexts: 22.8% of people helped by CARITAS' services during 2022/23 were people who suffered from poverty even if they were not unemployed. It is the case of people that are already having financial difficulties and that could easily slip into a condition of poverty, even if temporarily. Moreover, a growing percentage of beneficiaries (56.2%, while in 2021 it was 54.5%) suffer from a multidimensional typology of poverty, involving more than one sphere of vulnerability at once. The biggest number of interventions by CARITAS (71.8%) were made to help in the material goods sphere: the one involving access to food.

This data is enriched by the one retrieved in 2021 by the Ministry of Labour and Social Policy, to assess the situation after the Covid-19 pandemic: 2,645,064 (+27.3% compared to 2019) people benefited from food aid under the Fund for European Aid to the Most Deprived (FEAD) program.

The quantity of money that every household can dedicate to food shopping is more flexible than other essential expenditures, such as rentals, mortgages, etc. For this reason, the most common response strategy in case of a decrease or loss of income often involves reducing the quality and/or the amount of food purchased (Actionaid, 2021).

In this context of growing food insecurity, rich countries are witnessing a paradoxically high rate of food waste and surplus: the study carried out by the Swedish Institute for Food and Biotechnology (Gustavsson, J. et al., 2011) estimates, globally, food waste and losses along the supply chain at 1.3 billion tons per year, equal to about a third of the total production of food intended for human consumption. Considering the USA, 30% to 50% of food produced is lost or wasted (Muth et al., 2019). In Europe, around 88 Mt of food is thrown away yearly (2012 data by FUSIONS project). Specifically in Milan, the association RECUP, one of the stakeholders of SOSpesa project, claims on its website to be able to recover 8-11 tons of food every week from the general fruits and vegetables market and from the local street markets: food that would have never been reached the final consumers otherwise. The final consumer, though, still represents a significant actor in the wasting process: Italian families wasted, on average, 370 g of food per week, according to a study of 2017 by the Italian Observatory on Food Surplus, Recovery, and Waste [Osservatorio sulle Eccedenze, i Recuperi e gli Sprechi Alimentari (OERSA)], that also underlines the fact that “32,237 tons (0.3% of production) of fruits and vegetables were collected as surplus, the majority of which (82%) were subsequently distributed for consumption by those in need.” (Grant & Rossi, 2022)

1.2 Virtuous actions and future directions at a local level

In this scenario, the Milanese context - in which the following explained experimentation occurred - is particularly interesting because of various elements. Despite being often defined as the country's economic engines, the northern regions of Italy are the most affected by the recent growth of household poverty (Actionaid, 2021). In Milan and province, according to the data of 2020 provided by Banco Alimentare, an Italian non-profit organization that deals with the recovery of food surpluses from agricultural and industrial production and their redistribution to charities, the number of people assisted was 126,660, more than 50% of the total at regional level (Banco Alimentare, 2021).

Apart from the previously described CARITAS and Banco Alimentare services, the Italian context, and in particular the Milanese one, is constellated with various initiatives to face the previously described growing issues; such services belong to various typologies of providers, some very local or neighborhood-based and others more institutional or operating at a larger level: third-sector actors, local associations, Governmental and Municipal bodies, groups of activists, and charities of various kinds. Some examples are Ricetta QuBi, IBVA-Solidando, the Italian Red Cross, RECUP, Brigade Volontarie per l’Emergenza, Terza Settimana, Pane Quotidiano, to mention a few.

This complexity is held together also thanks to a major actor in the system, which is the Milan Food Policy, implemented by Milan Municipality in collaboration with Fondazione Cariplo; it represents a legacy of the Milano Expo 2015 experience, whose central theme was

“Feeding the planet”. This policy actively assists the local government in establishing a sustainable food system (Milano Food Policy, 2022). Under this policy's guidance, various initiatives, services, and strategies from both public and private entities are coordinated, serving as experiments in creating sustainable models for food production, processing, distribution, and food collection, aiming to address food poverty by making nutritious food more accessible.

In order to tackle the issues described in the previous paragraph and attain food security, the FAO suggests implementing, in a systemic way, measures that both enhance the ability of vulnerable individuals to withstand economic challenges, while also bolstering the overall resilience of food systems to ensure greater accessibility for everyone (FAO, 2021).

In this sense, the literature regarding food systems is recently exploring a novel conceptual framework called *Values-based Territorial Food Networks* (VTFNs). As Rachel Reckinger explains, the aim is to bridge under a common umbrella term conceptual and disciplinary differences among different strands of alternative agro-food literature, defined as alternative food networks (AFNs), local food systems (LFSs), short food supply chains (SFSCs) and civic food networks (CFNs) (Reckinger, 2022). “The VTFNs framework focuses on three key elements: the values that guide agro-food initiatives, their territorial or place-based dimension and the networks of co-operation that steer their governance” (Nemes et al., 2023, p. 5)

Particularly interesting for the case explained below is the use of the term “territorial”, according to Reckinger:

“territoriality is viewed as a set of contextual, case-specific, and place-based co-constructions, which take place continuously and simultaneously, and vary according to the interdependencies of involved actors, governance levels, scopes of power, access to resources, supply circuits, and the concerned, specific foods—but also according to the socio-cultural meanings attached to them.” (Reckinger, 2022, p. 99)

This concept is linked to the meaning that Reckinger gives to “food networks”, highlighting that “the human relational component that is central, not in an individualized way, but in forming specific alliances” (Reckinger, 2022, p. 97).

The initiative described in this paper, experimented in a territorial way in a Milan's neighborhood-based network, and founded on specific ethical values of resilience, participation, and well-being, follows exactly the above-explained approaches towards future better directions in tackling food insecurity and waste issues that are affecting Italy.

2. SOSpesa

2.1 The beginnings

In line with this framework and guided by the principles of the Milan Food Policy, which focuses on guaranteeing access to nutritious food for everyone, reducing food waste, and advancing research, 'Spesa SOSpesa' (name that can be translated as “suspended food-shop-

ping”) was founded in March 2020 by Alberto Andreetto, a creative inhabitant of NoLo, multicultural neighborhood in Milan, drawing inspiration from an age-old Italian tradition that had its roots in Naples during the early 20th century, known as the 'caffè sospeso'¹ or the 'suspended coffee.' This grassroots charitable initiative was launched in the NoLo district during the initial lockdown of the COVID-19 pandemic by a group of community members who were eager to assist vulnerable groups in need living in the neighborhood. The initiative initially worked through a simple platform that matched people who needed help with people willing to donate groceries.

After a first boom of donations and subscriptions to this first version of nowadays' service, after the end of the national lockdown in June 2020, the project faced a temporary pause because of the intricate nature of the components it involved and the reduced availability of people who had returned to working on-site. Then, the responsibility for 'Spesa SOSpesa' was assumed by the Polimi DESIS Lab, which in the Municipal indoor market of the neighborhood coordinate Off Campus Nolo, a Polytechnic of Milan's living lab to enact responsible, situated, and socially innovative research activities. The researchers and "off-campusers" of Polimi DESIS Lab implemented some reflections and changes, rethinking the initiative "as a solidarity service run by a network of neighborhood actors, managing the recovery, distribution, and full consumption of food, including the surplus and unsold one" (Fassi & Meroni, 2023, p. 247). From September 2020 to February 2022, 'Spesa SOSpesa' distributed more than 1600 bags, thanks to neighborhood donations of money. These bags contained fresh food purchased at a reduced price from the Municipal food market of NoLo and were supplemented with items from large retailers, guaranteeing a balanced mix of nutrients. Subsequently, after these first months of experimentation, it was clear that, in order to further evolve, there was a need for some structural and technological improvements, along with the building of a larger network, a better definition of the service offering, and some adaptations to cope with regulations.

This could happen thanks to the winning of the Polisocial Award, a research grant supported by the social responsibility program of Polytechnic of Milan. Said Award encourages collaboration among university departments on multidisciplinary projects with a social aim. In 2021, the focus was on "Equity and recovery." The authors of this paper, affiliated with the Department of Design- Polimi DESIS Lab, along with colleagues from the Department of Management Engineering (DIG) and the Department of Electronics, Information and Bioengineering (DEIB), submitted a research project titled 'SOSpesa – equity and recovery around the corner'. Their project was granted 100,000 euros to enhance the existing solution over a 15-

¹ The precise origin of said tradition is not clear nor univocal. It may have originated from the disputes that arose in Naples when paying the bill of coffee between friends at the bar: it could happen, in the confusion, that they ended up paying for a coffee that hadn't been consumed. In this case, the resulting credit was not asked for back, but the offer was left valid for the benefit of a stranger that could not pay for it. In Italian culture, paying for something "suspended" means that you are donating it for some unknown person that later may benefit of finding it already paid by an unknown person. This is why various charity initiatives in Italy, especially if related to food, refer to that tradition.

month period (March 2022-June 2023), marking the second phase of the initiative's evolution.

2.2 Research process

The funded research project SOSpesa builds upon the foundation of Spesa SOSpesa, with the aim of designing a network model of neighborhood actors (or a Values-based Territorial Food Network) who belong to the food system in various roles: food suppliers, distributors, solidarity agents. The research project, multidisciplinary (design, management, IT), encompassed a series of steps into the process to create a robust service capable of supplying food to a greater number of vulnerable individuals, emphasizing the use of surplus and unsold food while bolstering the local economy.

The key expected outcomes of the research project can be summed up in three main objectives:

1. The classification and evaluation of the various modalities of using surplus for social purposes in Milan and NoLo and the analysis of their effectiveness in creating a Network of Neighborhood Actors, committed to fighting poverty and food waste through the re-distribution of surplus.
2. The development of an organizational model for the medium-term economic sustainability of SOSpesa to ensure a lasting impact, investigating the potential for replicating the model in other neighborhoods to support both charitable and economic recovery for local food shops, and allowing a *technical scaling* (Meroni et al, 2017) to increase the service feasibility.
3. The construction and the activation of a network of service providers leveraging the local proactive social fabric, building on the experiences of Spesa SOSpesa and the QuBi Loreto network, with the aim of culturally integrate the service withing the community, making it known and familiar to the public.

This last aspect is the most related to the concept of VTFNs described in the paragraph above, and it's also the one on which this paper focuses the most, as it'll be seen in the next paragraph.

The research methodology and process consisted of three main parts: desk/field research, co-design workshops, and prototyping. The insights generated in the first two parts constituted the basis for designing the SOSpesa service and prototyping in 2023.

During the research phase, a study of national and international best practices in combating food poverty and waste was conducted. These practices were categorized based on essential criteria for the subsequent design phase. Concurrently, local organizations and potential supplier shops in NoLo were identified, and they were analyzed using the same indicators. Local shops were assessed based on their proximity to the delivery hub and product categories. Questionnaires were distributed to these shops, and an examination of existing technologies for traceability was performed. The questionnaires sought to gather information from

businesses regarding their unsold products, participation in similar initiatives like SOSpesa, willingness to provide products at reduced prices, discount practices, availability of fresh products, storage methods for excess food, types of products sold, availability of specific dietary options, and descriptions of their customer base. It also inquired about the types of products sold and their target customer demographics. It was distributed in more than 30 shops. It was not always an easy task to obtain participation or willingness to enter the network: the owners were often busy or not present in the shops, and not always the employees knew all the info. Sometimes the communication was arranged in a different way, as a sort of informal rapid semi-structured interview in person, instead of filling the form. The exploration has been useful to gain an informal mapping of the possibilities to involve new shops and businesses into the network. Every shop had its characteristics and proposed different possible solutions to collaborate, if willing to do so.

The co-design phase involved three workshops with different stakeholders: SOSpesa volunteers, departmental researchers, and local association representatives. Key insights from the workshops included the need for training, beneficiary involvement, flexible pricing, enhanced donation channels, systematic feedback collection, and traceability. Regarding beneficiaries, insights focused on communication, participation, technology for nutrition, food education, economic monitoring, feedback collection, peer-to-peer solutions, job placement integration, and community building.



Figure 1 Co-design workshops with different stakeholders (©Polytechnic of Milan)

2.3 Service description and key features

In the fall of 2022, the SOSpesa project was redefined as:

“A service that creates, activates, and experiments with a network of neighborhood solidarity actors that, aided by a digital platform, enables the mapping of food flows and a collection of donations, to offer free food bags to people in need. Qualified by an appropriate food nutritional mix, food bags recover surplus food from the neighborhood, transform unsold food and integrate stock goods at a reduced price. Collection

and delivery take place in the spaces of Off Campus Nolo, at the indoor municipal market.” (definition made by the authors within the project context)

The SOSpesa ecosystem therefore involves suppliers, intermediaries, donors, volunteers, and beneficiaries, all serving specific roles. Suppliers are local businesses within a 1 km radius from the delivery point, while intermediaries facilitate connections. Donors include neighbors, companies, and local entities, while volunteers help manage and deliver the service to the beneficiaries in need. The offering for them consisted of two different typologies of free grocery bags that comprise surplus and unsold products collected from various sources and complete bags purchased primarily from local shops at fair prices. During the prototype phase, 230 complete and 275 light bags were distributed.

As far as the technological aspects, experiments by DEIB Department included a smart weighing machine to identify food nutrients with an application for data entry into an online database. These technologies’ aim was to ensure the traceability of each product within the system, to track the surplus food donated in a both quantitative and qualitative way, and to facilitate and automatize the mechanism of managing the beneficiaries’ turnovers. The solutions were experimented during the service by researchers and volunteers. To each typology of food was paired a barcode that, when scanned into the app for data entry, which connected with a datasheet, automatically inserted the nutrients data about that specific food according to the quantity weighed by the scale. The intention was to track both the quantities of food donated (also tracking its provenience within the network of donors), both to gain an overview of the macro nutrients donated, to try to assemble food packages that were healthy and balanced. Some criticalities related to these technical solutions emerged and will be explained in the final paragraph.



Figure 2 A moment of distribution of food bags with some volunteers (@Polytechnic of Milan)

3. Prototyping food-transformation territorial networks

3.1 Building the food-transformation network of SOSpesa

The task of engagement and creation of the neighborhood actors network involved the definition of the VTFN (neighborhood shops, associations, informal groups, residents) that could be involved in the pilot phase.

This was determined through the exploration of 25 small food shops and businesses of Nolo/Via Padova area, using quantitative questionnaires and targeted interviews to understand their interest in:

- Donating their surplus.
- Transforming surplus raw materials provided by SOSpesa through RECUP.
- Selling ready-made dishes at regulated prices to include in the food bag.
- Participating in the packaging and distribution of food packages.
- Implementing additional services alongside food distribution.

The project initially assumed that local grocery stores would eagerly and easily supply their unsold surplus food, which was thought to be of a considerable quantity, to a charity service. However, during the exploration the reality showed that, in small local shops, the average quantity of surplus/unsold food was not that considerable, although the interest in collabo-

rating in such an initiative was high. Local businesses seemed to be more interested in becoming suppliers of reasonably priced products to be purchased for the “complete” bag or donors of money instead. The availability of random quantities of surplus food from some small shops that sought to be considered partners was nevertheless included in the ‘light’ bags, whenever it was present.

Since the collaboration with RECUP association - already established during the previous experience of Spesa SOSpesa- was successful and constantly provided a considerable quantity of fruits and vegetables, a new stream within the food flow of the service system was included in the prototyping phase. Some proactive small local businesses in the neighborhood wanted to collaborate with the project, because they believed in the values it promoted, even if they could not contribute with the donation of surplus food. The possibility of donating to them a part of the recovered food by RECUP to then be transformed into preparations sold at their shops was explored. It was then designed a new circular stream in the blueprint of the service, which allowed to include them in the service, contributing in a different way to the project and fostering at a territorial level both the communication of SOSpesa and their promotion. The circular flow of this food-transformation territorial network will be further explained in the next paragraph.



Figure 3 A volunteer checks the vegetables collected thanks to the collaboration with RECUP (©Politechnic of Milan)

3.2 Experimentation’s main elements and flow

The flow of the food transformation network worked this way: after the collection of fruits and vegetables boxes by a volunteer directly at the distribution point at the General Fruit

and Vegetable Market of Milan (So.Ge.MI), some of those food boxes, according to the availability of the week, were not included into the “light” boxes to be donated to beneficiaries, but were instead given for free to the small shops that participated to the initiative (tracking all the passages with specific required documents and following the legal disposition of article 4, comma 2, of the Italian Law of the 19/08/2016 n. 166). The shops then used that food for the preparations sold to their customers. According to the actors involved, they could be freshly prepared dishes, beverages, desserts, jams or preserves. The availability of donated food was seasonal and different every week, so they could experiment and create new dishes weekly, according to their businesses. The products that were part of the initiative were called “solidarity products” and were accordingly communicated and shown in the local shops through stickers with the logo of the initiative, along with other means of territorial communication, that made visible the belonging of the local shops to SOSpesa Network, diffusing the values and information regarding the initiative (fig. 4). For every “solidarity product”, 1€ was donated to the project, contributing to the funding for buying the “complete” food bags to be donated. Moreover, thematic events in that sense were organized, in collaboration with one of the three actors included in the solidarity food-transformation network. For example, when large quantities of the same product were collected by RECUP and brought to Off Campus Nolo by SOSpesa volunteers, it could be possible to have events such as the “Pineapple Party” or the “Castagnata”, in which then part of the total earnings was donated. In the next paragraph, some data tracked during this experimental process will be given.



Figure 4 Some ‘solidarity products’ made by Fòla within the transformation process (©Polytechnic of Milan)

4. Results and conclusions

4.1 Main results

Along the 29 weeks of prototyping, from 7th October 2022 to 16th June 2023, thanks to the action of mapping, engaging, and creating the situated network, 10 new partners (beyond the initial ones) were included and clusterized in the following 5 groups, depending on the typology both of them as entities and of donation to the project, but also their role and involvement in the flow of the service:

- Cluster A - Business activities
Type of donation: surplus
A.1 - Confectionery and gastronomy surplus
A.2 - Bakery products surplus
- Cluster B - Associations/charitable entities providing redistribution services
Type of donation: surplus
B.1 - Fruit and vegetable surplus
B.2 – Packaged products surplus
- Cluster C - Business activities - transformation
Type of donation: economic
- Cluster D - Commercial activities – donation box
Type of donation: donated products (not in excess), money supply from customers
- Cluster E - Business Activities - Voucher for on-site pick-up
Type of donation: surplus

The tracking of the food-transformation initiative within the project states that thanks to the initiative of the 'solidarity products' sold in small local shops, in 5 months it was possible to earn 1133€ in total, considering the 3 partners. In particular, in the virtuous case of Fòla, in total, € 466.00 was obtained with the processing of 20 vegetables boxes donated, corresponding to more than 30 kg of fruit and vegetables, and transformed into 310 'solidarity products'.

That amount helped in donating 240 'complete' food bags, worth 7.500€. Thanks to the other partners donating the surplus food instead, 285 'light' food bags were donated, and it has been tracked that during the last 19 weeks of prototyping, 2300 kg of surplus food coming from the clusters described above was recovered and then donated. In particular, 164 kg were coming from Cluster A, while 2136 kg from Cluster B. Of the overall quantity, 2097 kg were of fruits and vegetables while the remaining 203 kg were of other categories of food.

Apart from the businesses included into these clusters, other neighborhood actors included in the VTFN of SOSpesa were:

- 3 shops in the indoor Municipal Market: the bakery, the halal butchery, and the greengrocer, as providers of fresh food purchased with donations.
- 'RECUP', at their collection and distribution point at the General Fruit and Vegetable Market of Milan (So.Ge.MI) as a provider of zero-cost recovered fruits and vegetables.
- 'La terra che non c'è' project with hydroponic walls at the urban garden in Via Padova for occasional supply of salads.
- SOSpesa volunteers: a group of 18 participants, including neighborhood residents, student associations, and off-campus individuals, for collecting and transporting RECUP's recovered food boxes, managing the preparation and distribution of food packages, and identifying and managing related initiatives.
- 'Il Vespaio' for the partial recovery and transformation of plastic fruit and vegetable crates and participation in related initiatives.
- 'QuBì Loreto' for the realization of further mapping activities, including the possibility of creating a neighborhood "refrigerator," a storage point for local fresh food.
- 'SIT - Social Innovation Teams', a student association of Polytechnic of Milan, for managing the composition of the weekly list of beneficiaries, contact, and assistance in mapping additional shops.
- 'ASM - Associazione Studenti Musulmani', a student association of Polytechnic of Milan, for front-desk activities in Arabic language and events.

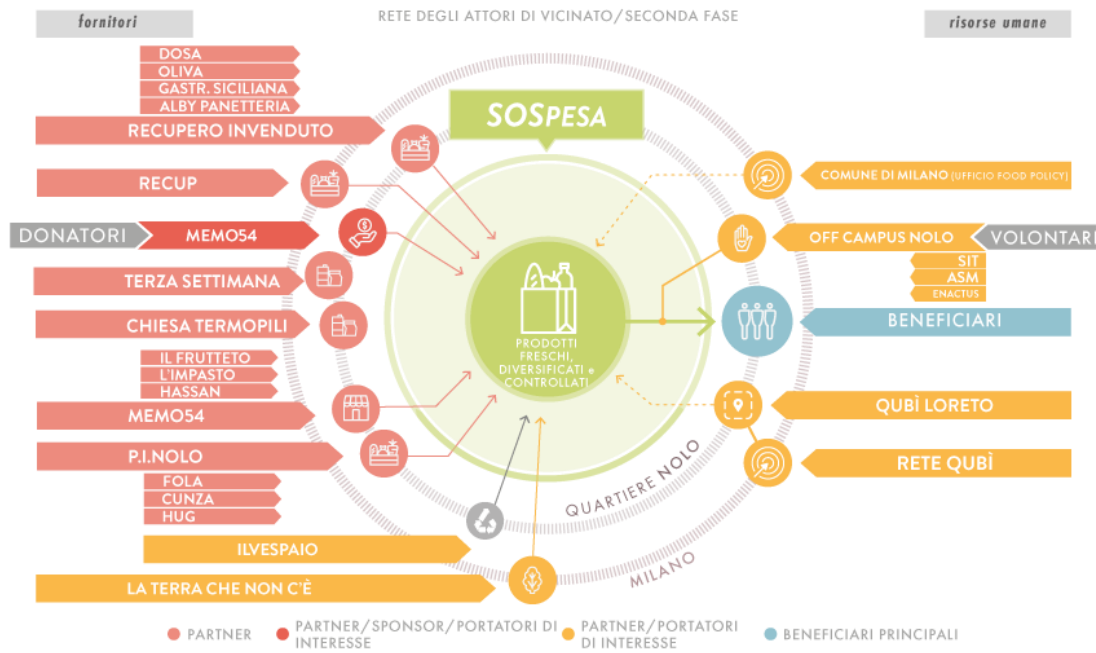


Figure 5 SOSpesa network at the end of the prototyping (@Polytechnic of Milan)

4.2 Final insights and conclusions

In conclusion, the SOSpesa project emerged as a valuable initiative to address the growing challenges of food insecurity and poverty in the Milanese NoLo community. The project successfully engaged local businesses, associations, and residents inside of a network of neighborhood actors, also leading to the formation of a ‘food-transformation territorial network’, which generated a new circular stream in the functioning of the service: using surplus food provided by the project, small shops of NoLo created various food products, generating earnings that further supported the initiative. Over the course of the project's 29-week prototyping phase, several clusters of new partners emerged, each playing specific roles in the network. These partners included local businesses, associations, and charitable entities, and their contributions ranged from surplus food donations to economic support and the sale of ‘solidarity products.’ Economic and labor sustainability were the main challenges in maintaining this network cohesive and efficient, due to varying levels of engagement. Defining roles and rules became crucial for effective management and ensuring continuity, as volunteers and impromptu donors rotated. Keeping actors committed was a complex task, addressed through communication initiatives and peer-to-peer collaborations among beneficiaries. Also, the building of an exit strategy for the researchers’ team is still an ongoing process and challenge. As far as the technical experimentations with the smart scales the criticalities mainly involved the difficulty into integrating smoothly and consistently its usage and implementation within the everyday back end activities enacted by the volunteers. Scanning the barcode and using the app implied some steps more into the flow of the canonic and “analogic” activities. Furthermore, it was not possible to actually use the platform to predict

food flows, that was one of the initial intentions, because of the aleatory quantities and typologies of donated items, but just to track week after week the amount of donations from the various clusters and the nutritional facts of the various food typologies. As far as the food donations and food transformations are concerned, normative issues, such as compliance with the HACCP system and financial regulations, also arose. These challenges underlined the need to adapt and create new institutional frameworks as social innovation projects often clash with established norms when formalizing informal practices.

As Reckinger points out,

“Through the sharing of societal goals beyond merely economic exchange, [...] VTFN should be considered as potential agents of change, exerting pressure on the food system in several ways. They may do so by pointing out contradictions and limitations of the mainstream food system and thus fostering new public awareness around food issues and the introduction of new questions on political agendas.” (Reckinger, 2022, p. 98-99)

In summary, SOSpesa demonstrated the power of community engagement and collaboration in addressing food insecurity and food waste. By creating a network of neighborhood actors and leveraging surplus food resources, the project made a significant impact on the community, providing essential support to vulnerable individuals, serving as a noteworthy example of a local response to global food security challenges.

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