

# 'SOSpesa' – Service Design Leveraging Neighborhood Solidarity Networks to Tackle Food Poverty, Food Surplus, and Sustainability of Local Commerce<sup>1</sup>

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## ABSTRACT

This paper illustrates a project to redesign a charitable initiative against food poverty into an innovative solution called “SOSpesa”, implemented in a neighborhood of the city of Milan named NoLo - North of Loreto. The paper outlines approach, methodology and strategy to move from an activist initiative to a service with more than charitable purposes, and outlines the new service configuration in its opportunities and limitations as emerged from the pilot project. It focuses on strategies to harness a network of neighborhood actors to achieve a goal of solidarity, combating food waste and supporting local shops. Based on the assumption that the local context is a strength of the service, the project activated a wide range of actors, from volunteers to third sector organizations and businesses, under the coordination of a team of researchers, to experiment with different service configurations in search of overall sustainability. Finally, the paper discusses design strategies for scaling up grassroots social innovation through replicability, not to distort its spirit and bottom-up engagement.

*Keywords:* Service design, Neighborhood networks, Food surplus, Local shops, Vulnerable people, Social innovation.

## INTRODUCTION: FOOD POVERTY

Pandemic in 2020, climate change, inflation and the conflict between Russia and Ukraine since 2022, in addition to the already manifest fragilities in the global food system, are causing even in Europe severe limitations for many people in their access to good, safe, and sufficient food.

The 2022 ‘Sixth Assessment Report’ of the Intergovernmental Panel on Climate Change (the United Nations body for assessing the science related to climate change) states that “The global food system is failing to address food insecurity and malnutrition in an environmentally sustainable way.” (p. 48). Impacts of climate change on food affect everyone everywhere yet, summed up to the economic downturn and the global competition for critical resources, increase worldwide the vulnerability of some groups, such as women, elderly and children in low-income households, minority groups, low-income workers, and youths.

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According to the Caritas Report (Caritas, 2022), in 2021 there were an estimated 5.6 million ‘absolute poor’ (people who cannot afford essential goods and services) in Italy on a total population of less than 60 million, thus the 10%. Compared to 2020, there is a 7.7% increase in the number of beneficiaries supported by Caritas: they are not always new poor, but also people who oscillate between in and out of need, being ‘working poor’, that is poor workers. In fact, one in four people already having economic problems could at any moment slip into a worse situation of poverty. Both men and women ask for help, while the incidence of foreigners is growing year by year.

Food poverty, in high-income contexts as Europe, not only means being hungry and undernourished, but also not having access to sufficient food of good quality that provides the nutrients necessary for physical well-being. According to the Food and Agriculture Organization of the United Nations, the high cost of healthy diets coupled with income inequality put healthy diets out of reach for around 3 billion people in the world (FAO, 2021). Higher domestic food price inflation, higher retail prices, reduction of the purchasing power of safe and nutritious food in sufficient quantities affect the quality rather than the quantity of the diet: good food is less accessible to the so-called ‘urban poor’, who therefore tend to buy and consume less healthy packaged food in greater quantities. As a strategy to counteract this condition and achieve food security, FAO recommends actions that strengthen both the resilience of the vulnerable people to economic adversity and the resilience across food systems in general, that is, making food more accessible for all. The initiative described in this paper is an experimentation in this direction, developed in Milano, Italy.

## 1. FOOD POVERTY IN THE ITALIAN CONTEXT

In Italy, food poverty, despite not very evident, is a structural phenomenon that the pandemic exacerbated and highlighted. According to a study of 2015 (Rovati & Pesenti, 2015), 14 out of 100 families do not have access to a balanced diet with protein. The situation is worsened today, which is testified by the number of people who have applied for food aid every year from 2015 to 2020: the food of FEAD aid (Fund for European Aid to the Most Deprived) has been distributed to between 2 and 2.8 million people (Ministero del Lavoro e delle Politiche Sociali, 2021). This aid is provided by private social organizations such as Caritas Ambrosiana, Banco Alimentare and the Croce Rossa Italiana and takes the form of meals provided in canteens and distribution of food parcels or cards to be used in social emporiums or at home.

Italy is not suffering food shortage, but economic emergency for absolute poor and people at risk of poverty that are increasing in number. Food surplus is instead an issue: it amounts to 5.6 million tons per year (16.8% of annual food consumption) (Qubi, 2020) – yet there is difficulty for many families to access a nutritious and adequate diet. Restrictions in place during the pandemic have increased the category of the working poor: people that, at best, have seen their income reduced by a quarter (CENSIS & Confcooperative, 2020).

### 1.1. Milan: An Italian Economic Engine Facing Food Poverty

Although Milan has always been defined as the economic engine of Italy, part of the population faces a condition of food insecurity. In 2022, Banco Alimentare (<https://www.bancoalimentare.it/it>) recorded more than 200.000 people assisted in Milan and province, and 110,000 tons of food saved from waste in Italy. A survey conducted by Actionaid in 2021 (Actionaid 2021) reports that solidarity organizations registered a 95%

increase in requests for food assistance and the number of individuals and families who needed food aid almost doubled.

Policies adopted by the City of Milan in the last years are a legacy of the Milano Expo 2015, which theme was 'Feeding the planet' and which launched the 'Milan Food Policy': a policy instrument, jointly promoted by the City and the Cariplo Foundation, that supports the local government in its efforts to make the food system sustainable (Food Policy Milano, 2021). This Policy coordinates and provides an umbrella to several initiatives, services and strategies, from both private and public bodies, which are experimenting with sustainable models of production, processing, distribution, and collection of food, also delivered to alleviate food poverty. Cariplo Foundation supports and contributes to the activities of many organizations such as Ricetta QuBi, Banco Alimentare, Caritas Ambrosiana, IBVA-Istituto Beata Vergine Addolorata, the Italian Red Cross and Recup, to mention a few. Food Policy works to facilitate their networking to be more effective in action, regardless of the differences in initiatives.

Within this framework and following the principles of the Milan Food Policy of ensuring healthy food for all, combating waste, and promoting research, "Spesa Sospesa NoLo" was established in March 2020: a grassroots charity action set up in the NoLo district during the first pandemic lockdown by a group of citizens willing to help needy people in the area.

## **2. "SPESA SOSPESA NOLO": A CHARITY ACTION TO HELP PEOPLE IN NEED, CREATED IN AN ACTIVE NEIGHBORHOOD FROM AN OLD TRADITION**

The NoLo (North of Loreto) neighborhood in Milan is a very multicultural district at the center of a transformation process fueled by the area's deep-rooted associational fabric, by the active role of the NoLo Social District (a Social Street of 11,000 members), and by a momentum of caring for the common good. Here, the pandemic accentuated the poverty of some and a need for fair access to food, highlighting a two-speed neighborhood, polarizing between richer and poorer areas (Fig.1). It also highlighted how local food shops suffered from logistical and reception inadequacies that necessitated their rethinking: the irregularity of food flows and demand generated surpluses whose recovery and redistribution have suffered from the operational difficulties under strict sanitary regulations and limited personnel. Additionally, the pandemic raised awareness on the importance of the neighborhood networks built through the pro-activity of inhabitants, such as the several ones that were, and are, very lively in NoLo (Camocini & Fassi, 2017; Fassi & Manzini, 2021).

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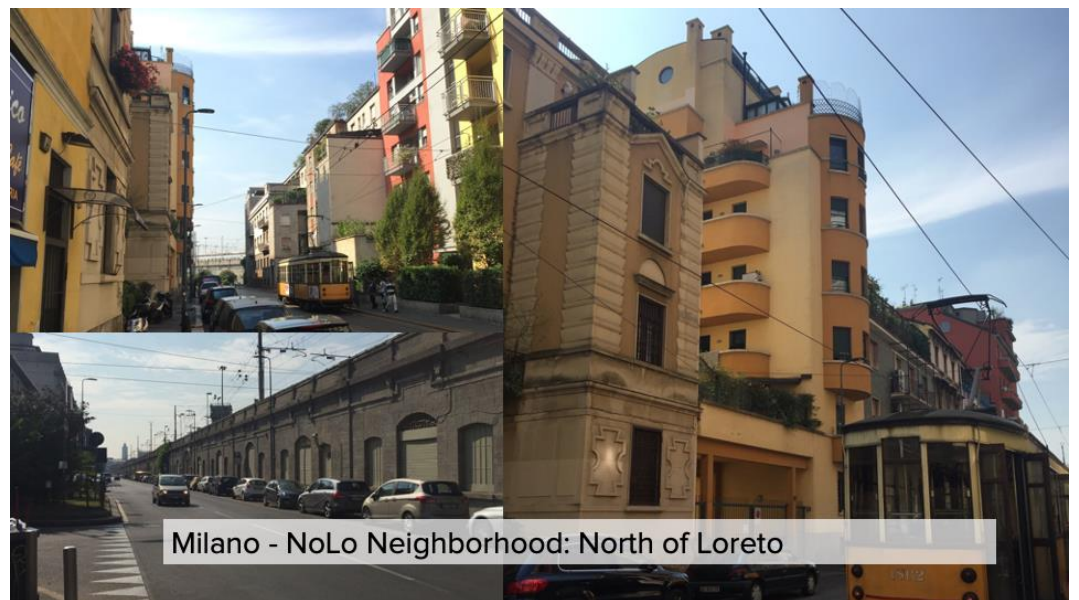
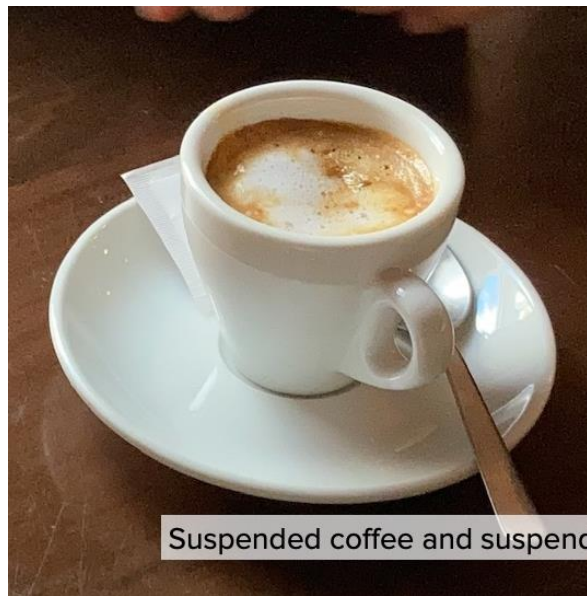


Fig. 1. The NoLo neighborhood (The image was kindly provided by Politecnico di Milano).

In this fertile context, the “Spesa Sospesa NoLo” project was born from the initiative of Alberto Andreetto, an interaction designer who wanted to help a family in the neighborhood with financial difficulty. Through a post in the Nolo Social District Facebook group, he expressed this intention to provide help and, as a response, many people offered to donate money to help families in need. Andreetto then created a Google form with three options: “I need food”, “I want to bring a grocery shopping to someone” or “I just want to contribute to a grocery shopping”, with the aim of matching donors and applicants. The form was then published on the Facebook group: in a fortnight, it received hundreds of responses. Considering this reaction, he created a platform and a website: this made it possible to filter requests by postcode, restricting the area of intervention to the district. As a result, more than 250 people were matched and a total of 8000 euros worth of food was purchased: the platform collected donations and organized volunteers to buy and distribute the food to beneficiaries.

“Spesa Sospesa NoLo”, that can be translated as “suspended food-shopping”, borrowed its principle from an old Italian solidarity practice, which originated in Naples in the first half of the 20th century: the ‘caffè sospeso’, that can be translated as the ‘suspended coffee’ (Fig.2). It is a cup of coffee paid by a customer in a café for the benefit of another one that will come later and that cannot afford to order it. Following this spirit of solidarity and empathy, several initiatives flourished in Italy (Rossi et al, 2021, Cattivelli 2021) during the pandemic, adopting this naming, although the operating principle was different from the ‘caffè sospeso’. This was, in fact, the case of “Spesa Sospesa NoLo”.



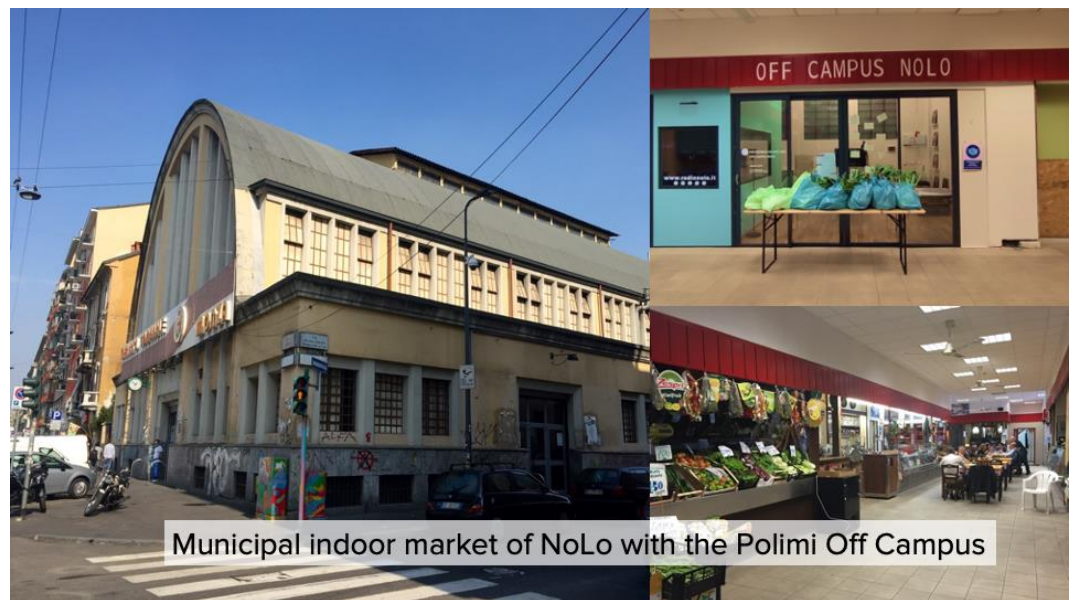
Suspended coffee and suspended food-shopping

Fig. 2. Suspended coffee and suspended food shopping (The image was kindly provided by Politecnico di Milano).

With the end of the lockdown, in June 2020, the project came to a standstill due to the complexity of components to be managed and the decrease in the free time of people returned to work in presence. By the end of the summer, “Spesa Sospesa NoLo” was taken over by the Polimi DESIS Lab of the Politecnico di Milano, an Off Campus living lab opened by the Department of Design in the Municipal indoor market of NoLo. Also, the Radio NoLo association, there located too, supported the initiative (Fig.3). The takeover implied the implementation of changes in the solution triggered by questions that guided its rethinking:

1. How might we guarantee fair access to quality and quantity food to people in need, in NoLo?
2. How might we ensure the post-pandemic recovery of small-scale retail shops and local actors?
3. How might we educate neighborhood’s dwellers on the fight against food poverty?

Accordingly, “Spesa Sospesa NoLo” was rethought as a solidarity service run by a network of neighborhood actors, managing the recovery, distribution, and full consumption of food, this including the surplus and unsold one. Since then, project’s objectives were not limited to the fair, continuous and balanced supply of food to the vulnerable population but included funding neighborhood shops, while involving them in a fight against food waste and poverty. Configured as a short-range solidarity network, the service integrated support for the poor with support for local shops.



Municipal indoor market of NoLo with the Polimi Off Campus

Fig. 3. The NoLo municipal indoor market (The image was kindly provided by Politecnico di Milano).

“Spesa Sospesa NoLo”, from September 2020 to February 2022, has been packing every Friday 20 basic food bags (Fig.4) prepared and delivered by the Polimi Off Campus’ volunteers (professors, students and trainees), for a total of more than 1600 units. Bags consisted of food products purchased at a reduced price from the municipal market in Viale Monza, where Off Campus is located and the operations take place. Market’s shops, associated in MEMO 54, guaranteed fruit and vegetables, bread and fresh pasta, meat or cheese and cold cuts. Food bags were then supplemented with packed products not available in the market, and so bought from large retailers: flour, rice, and pasta. Funds came from neighborhood donations. “Spesa Sospesa NoLo” managed to meet the food requirements of most of the people, including those with intolerances and halal or vegetarian diet.



Fig. 4. “Spesa Sospesa NoLo” 2020-22 (The image was kindly provided by Politecnico di Milano).

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### 3. FROM CHARITY ACTIVISM TO A SERVICE SOLUTION

The redesign of the activity by the Politecnico di Milano, from a grassroots initiative to a permanent and weekly service, brought to an evolution of the solution that evidenced opportunities of improvement. The university intervention, building upon a social activism initiative, secured it by developing an early-stage social innovation and connecting it more structurally with social actors, with the goal to scale it out (expanding to serve more people), up (influencing policies and rules) and deep (making a cultural impact) (Moore, et al. 2015). The action of ‘design activism’ initiated by the inhabitants has been made more structured and visible, so becoming effective as a ‘provocative artefact’ into people’s perception, inviting active engagement and offering new ways of seeing and living the neighborhood (Markussen, 2013). To become a stable and sustainable practice, however, after months of experimentation, it was clear that further structural and technological improvements, a larger network, a better definition of the service offering and some adaptations to cope with regulations were needed. Ultimately, experimentation with civil servants and civic organizations would have been necessary to test changes in the regulatory framework, as it happens in many cases of social innovation (Meroni, 2019).

The opportunity for a further evolution was provided by the Polisocial Award, the research grant funded by the corporate social responsibility program of Politecnico di Milano. Off Campus NoLo was, indeed, already an initiative of this program, which is creating a citywide network of likewise living labs to support local communities design solutions for their wellbeing. The Award invites the university departments to work together in multidisciplinary projects. In 2021 the theme was “Equity and recovery”: the authors of this paper, which are from the Department of Design – Polimi DESIS Lab, together with colleagues of the Department of Management Engineering (DIG) and the Department of Electronics, Information and Bioengineering (DEIB) applied with a research project called ‘SOSpesa – equity and recovery around the corner’. The project was awarded with 100k euros to improve the existent solution throughout 15 months of work (March 2022-June 2023), thus providing for the second evolution of the initiative.

#### 3.1. Research Process and Expected Results

Building on the existing “Spesa Sospesa NoLo”, ‘SOSpesa’ aimed to research, organize, test, and prototype a network model of neighborhood actors operating in the food sector both as food suppliers, distributors, and solidarity agents. The research process consisted of a set of phases from research to implementation that, compared to the first redesign, had much broader scope and integrated different competences (design, management, IT), to achieve a robust service that could guarantee the supply of food to a larger number of vulnerable people, utilizing surplus and unsold food as much as possible, and strengthening the economy of neighborhood shops. It is also investigated whether the service could be innovated by smart technologies for data analysis and supply management.

The purpose of this paper is to illustrate and discuss a methodology for moving, progressively, from an activist initiative to a service with more than charitable purposes, and to outline the new service configuration in its opportunities and limits as emerged from the test phase. Outputs are thus discussed against the main expected results of the project, namely:

1) the classification of different ways of surplus use for social purposes in NoLo and the analysis of their effectiveness to create a Network of Neighborhood Actors: a system of

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initiatives and organizations committed to fighting poverty and food waste through the re-marketing of surplus, end-of-life products and urban agriculture production. This networking action can be regarded as a way of *infrastructuring* social innovation (Hillgren et al. 2011, Seravalli & Eriksen 2017), that is building long term relationships with stakeholders to create networks from which opportunities may arise.

2) the development of an organizational model for economic sustainability of ‘SOSpesa’ in the medium term to guarantee a legacy of the project. The project aimed to set-up a B2B digital platform to serve as a repository of the stocks and flows of food, to facilitate the collection of data from the beneficiaries and better plan the service through monitoring and data analysis. It could also bring about the replicability of the model in other neighborhoods for both charity and economic recovery of local food shops. This organizational and technological redesign can be regarded as a *technical scaling* (Meroni et al, 2017) to increase the service feasibility.

3) the activation of a network of actors that run the service. Thanks to the previous practice of “Spesa Sospesa NoLo” and the actors participating in the Qubi network, the project ‘SOSpesa’ aimed to take advantage of the local proactive social fabric. Stakeholder engagement is as a move in the direction of the *cultural scaling* the service to embed it within the local community, seamlessly integrating it into the behavior of actors and making it familiar to the public.

### 3.2.The Process of Redesign

The specific methodology adopted in this second redesign of the service is based on desk/field research and co-design workshops.

**Research.** The research phase surveyed and catalogued national and international good practices operating in the fight against food poverty and in the reduction of food waste. Practiced were benchmarked and clustered according to criteria useful for the following design phase, such as territorial dimension, type of product conferred, number of stakeholders and beneficiaries. Contextually, researchers of the Department of Management Engineering mapped the territorial organizations of NoLo who provide services comparable to ‘SOSpesa’ and the shops that could potentially be included in the suppliers’ network. Organizations were catalogued with the same indicators as the international best practices and analyzed through in-depth interviews. Shops were identified according to a walking distance from the delivery hub and to their product category, favoring mini-markets, delicatessens, bars, restaurants, butcher shops, greengrocers. Questionnaires were administered to 6 shops in the P.I.NoLo association to collect information on: type of unsold product, participation in similar services, warehouse management, frequency and amount of unsold goods, and interest in participating in the service. Analyses were complemented by the mapping (by the Department of Electronics, Information and Bioengineering) of existing technologies and systems to manage traceability, data entry and storage. Thus, the identification of criticalities of existing platforms helped hypothesize the most suitable solutions to support ‘SOSpesa’.

**Co-design.** A co-design phase followed the research. It was conducted through 3 workshops with different kinds of stakeholders (Fig.5): volunteers of “Spesa Sospesa NoLo” (workshop A), researchers from the three departments involved in the research (workshop B) and a group of representatives of local associations working in the field of food poverty (workshop C).

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Workshop A was conducted with a group of volunteers from the student association 'Social Innovation Team' who accompanied the researchers throughout the project, bringing the experience of management tools and methods for social innovation. The workshop, in June 2022, consisted of: an introduction to the research; a collection of feedback on the activities of "Spesa Sospesa NoLo"; an identification of solutions to improve the service, and a mapping of the most relevant insights from the experience. To conduct the workshop, researchers created a simple paper board organized in two parts, dedicated to feedback on operation and proposals for improvement.



Fig. 5. Co-design workshops with different stakeholders (The image was kindly provided by Politecnico di Milano).

The most substantial insights for 'SOSpesa', however, came from workshops B and C, both conducted with an ad-hoc tool: the 'Service Redesign Board' (Fig.6). The board was organized into four quadrants around a central window. The two quadrants on the left allowed to position the identified best practices (technologies and solutions) according to the polarities 'most interesting' and 'least interesting'. The upper right quadrant was populated by the identified elements of interest, while the lower left quadrant by a selection of the most significant ones, commented with respect to their feasibility. The four quadrants were preparatory to the fifth one in the center: an activity map organized in 'back and front office operations', and in 'beneficiaries and stakeholders involved'. Insights about operations and beneficiaries were then collected to provide the basis for the redesign of the service, described verbatim in the center of the quadrant.

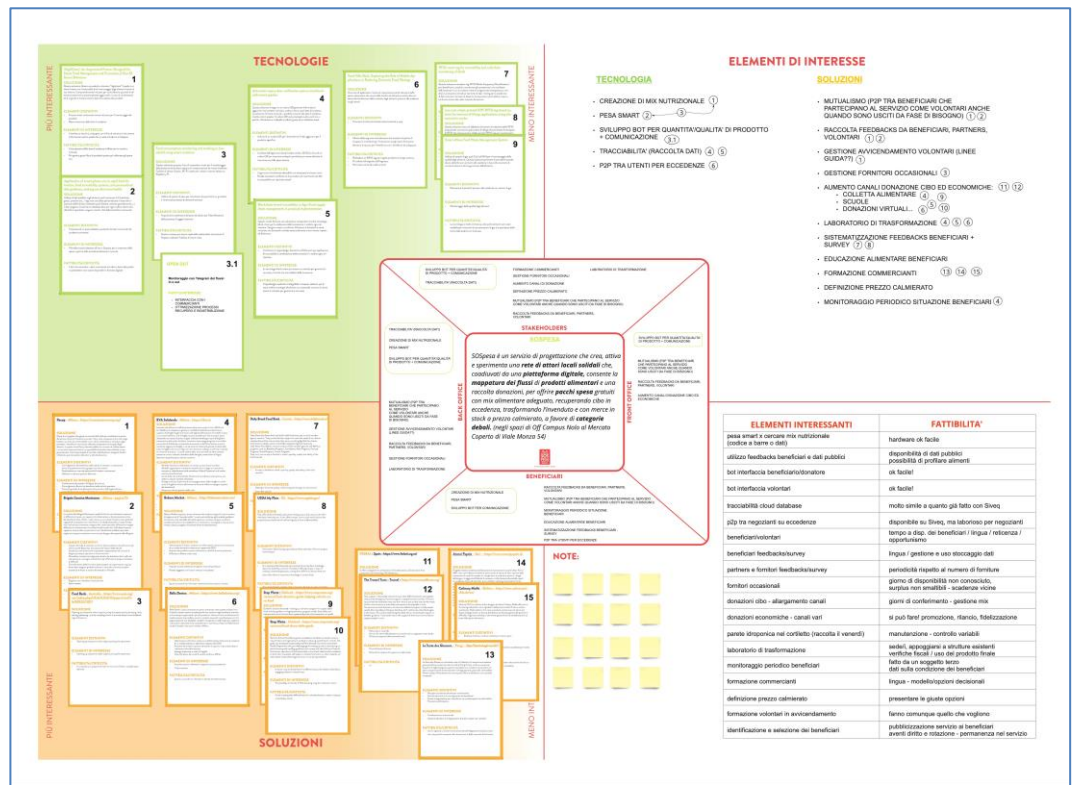


Fig. 6. Service Redesign Board used for the co-design of 'SOSpesa' (The image was kindly provided by Politecnico di Milano).

The main insights from the three co-design workshops can be then summarized as follows:

- Stakeholders:** the need of a dedicated training for volunteers and suppliers, with specific actions to manage the occasional ones; the involvement of beneficiaries in the delivery of the service, according to a p2p logic, even once they do not use it anymore; the agreement on a reduced price of the produce, according to different conditions; the set-up of transformation labs; the expansion of the donation channels; the systematic collection of feedbacks from all stakeholder to monitor and adjust the service over time; the traceability to be achieved with different technologies.
- Beneficiaries:** the experimentation of a multilingual BOT to improve bidirectional communication; the involvement of beneficiaries as co-producers of the service; the improvement of the nutrition mix through technology (for example, a 'smart weighing machine'); the need of food education for beneficiaries; the monitoring of the economic situation and access to service of beneficiaries; the regular collection of feedbacks from beneficiaries to adjust the offering; the set-up of p2p solutions between beneficiaries to manage specific situations, such as surpluses; the integration of food provision with job placement programs targeting beneficiaries; the design of convivial occasions to support the creation of a cohesive community.

The previous insights were then referred to the service operations in the back and front office, so that together they made it possible to outline a draft definition of the service 'SOSpesa', based on which a dedicated prototyping plan was designed and implemented in 2023.

#### 4. THE NEW 'SOSPESA': KEY FEATURES OF AN INNOVATIVE SERVICE

In Fall 2022, the project definition of 'SOSpesa' was thus the following:

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*“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.”*

On the base of this redesign, from October 2022 to June 2023, ‘SOSpesa’ was prototyped for 32 weeks, providing to donate more than 500 food bags. Only the main outcomes of this phase are reported in this paper, as its primary objective is to provide a concise overview of the full methodological and design evolution from an activism-driven initiative to a service (Fig.7). Hence, results are herein presented, clustered according to the main components of the service.



Fig.7. The prototype of the service ‘SOSpesa’ (The image was kindly provided by Politecnico di Milano).

#### 4.1. The Food Bags

To optimize the flows of donated food (surplus and other) and funds, researchers developed two kinds of food bags, the ‘light’ and the ‘complete’ one. The ‘light’ one consists of donated food from different suppliers: unsold/surplus and end-of-life products (fresh or processed) collected from different food markets (district and whole) and from a network of local shops (bakeries, delicatessen etc.) by local organizations (e.g. RECUP, Terza Settimana) and volunteers; food donated for solidarity by the local commerce, this including hydroponic salad cultivated in neighborhood public spaces by ‘La terra che non c’è’ project. The nature of this ‘light’ bag is inherently variable and unpredictable. The ‘complete’ bag consists of a mix of products for a total market value of no less than €35, purchased mainly from the shops of the NoLo indoor municipal market (Mercato di Viale Monza) at a calmed, yet fair, price. Funds come from people’s donations, from the sale of third-party transformed surplus food from district markets; from any targeted purchasing campaigns for specific products organized in cooperation with intermediaries. The availability of this ‘complete’ bag is contingent on the availability of funds, so the issue is to stabilize the flow of donations.

Altogether, 230 ‘complete’ and 275 ‘light’ bags were delivered during the pilot, rotating beneficiaries. Bags were distributed at Off Campus NoLo or delivered at home on request for non-self-sufficient beneficiaries, in the number of around 20 per week to cover subjects from

vulnerable categories. Volunteers distributed pre-packed bags, and/or allowed self-service at a stall, and/or provided vouchers spendable within the network of local solidarity actors (Fig.8).



Fig. 8. The donated products and donation campaigns of 'SOSPesa' (The image was kindly provided by Politecnico di Milano).

## 4.2.The Network of Neighborhood Actors

The 'SOSPesa' service ecosystem comprises suppliers, intermediaries, donors, volunteers, and beneficiaries. Suppliers are local shops at a maximum distance of 1 km from the point of delivery of the bags. They are small and medium-sized commercial activities, fresh and/or packaged food outlets, delicatessens, bars, restaurants, ice-cream parlors, online supermarkets or take-away corner services, open-air district markets (Mercato di Via Termopili), indoor municipal markets (Mercato di Viale Monza), community gardens (Orti di Via Padova) and experiments in hydroponic cultivation (La terra che non c'è). Supermarkets are excluded, because they are already part of parallel circuits (e.g. the Banco Alimentare). Intermediaries are associations that facilitate relations between suppliers and beneficiaries (e.g. RECUP, P.I.Nolo, and more). Donors are neighbors, companies, and local entities that produce or sell products with a percentage donated to 'SOSPesa'. Volunteers are neighborhood residents and allies (researchers, volunteers, students) who support the management and delivery of the service. Beneficiaries receiving food bags are vulnerable people of low-income, no-income, and working poor. The flexibility of the service is well suited to the flexibility of their need. Other kinds of beneficiaries are local shops that sell the products for the 'complete' food bag: in fact, despite applying a calmed price, one of the goals of the project is to guarantee for them a fair and sustainable profit.

The local network was thus involved in different ways in the co-design and co-production of the service, with also the aim of progressively transferring ownership of the activity from Polimi Off Campus' researchers to civil society organizations. Roles, responsibilities and back/front office's tasks and actions have been roughly codified according to a service design logic, with the aim of bringing about the scaling up of the service by replicability in other neighborhoods. Hence, different actors signed different memorandums of understanding to rule their collaboration.

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Furthermore, researchers organized several local communication initiatives to strengthen the network infrastructure, such as: dissemination, convivial and fund-raising events; promotional postcards; banners and posters in the Municipal Market; window sticker in the participating shops; stickers in the products sold for solidarity.



Fig. 9. The volunteers of 'SOSpesa' (The image was kindly provided by Politecnico di Milano).

### 4.3. The Logistics and Food Management:

The technological experimentation focused on the application to 'SOSpesa' of: 1) a smart weighing machine that identifies nutrients and quantity of donated/purchased food, so to check the correct food mix, ensure product traceability and implement a database of the food flows; 2) an application developed for 'SOSpesa' that allows operators to enter all data into an online database; 3) a digital platform to weekly manage the list of beneficiaries based on a sign-in plug in to get access to the food to a larger number of people. This system, developed from an already existing one, aims to guarantee traceability of each product.

## 5. REFLECTIONS AND DIRECTIONS OF DEVELOPMENT OF THE SERVICE

Over the course of the project, several opportunities have come to light as well as insights connected to the goal of turning an episodic solidarity action into a permanent service.

### 5.1. Insights From Prototyping

One project's starting assumption was that in normal times (out of pandemic emergency) local grocery stores would be interested in supplying unsold/surplus food to a charity service. In the reality, although there is interest for this, a strong insight from the experimentation is that there are few surpluses, so local businesses are more interested in joining the network as suppliers of calmed price products or as donors, rather than surplus food. However, the random availability of surplus food is an opportunity that 'SOSpesa' has sought to exploit.

Another set of insights refer to the work of infrastructuring the network of neighborhood actors: economic and labor sustainability are issues to face considering the different nature of their engagement. Operationally, a clearer and codified, albeit rough, definition of roles and rules is a way to better manage the engagement of actors, including the passing of the baton

for the physiological turnover of people, entities, and organizations (from volunteers to impromptu donors). Yet, the big challenge of a complex service ecosystem is keeping the commitment of the actors: for this to happen, 'SOSpesa' has designed and implemented the several communication and person-to-person initiatives described above, including the experimentation with p2p collaborations among beneficiaries. Yet, an effective exit strategy for the Polimi Off Campus team has not yet been possible and is the next challenge to face.

Finally, there are insights about the technical and normative sphere: the digital platform and the weighing machine have proved to be applicable to the service, yet their effectiveness to improve its logistics and management must be further understood. In fact, evaluating their use against the variables that affect the availability of food products for both 'light' and 'complete' bags (quality and quantity of food, funds, kind of beneficiaries) the added value they bring is still small and not yet clearly focused. Additionally, there is an issue of usability of the platform by non-expert operators with high turnover. Normative issues have raised several times during the experimentation, concerning steps of transformation and delivery of the food. Some refers to the compliance with HACCP system - *Hazard Analysis and Critical Control Points* some other with the financial and taxation rules. While entering in detail would not be relevant for this reflection, it is instead noteworthy that, as for all social innovation, endeavors seeking to formalize informal practices frequently encounter discrepancies with established norms and necessitate progression towards new institutional frameworks.

## 5.2. Two Scenarios for the Future

Eventually, researchers built two scenarios of possible consolidation of the service 'SOSpesa':

**The light 'SOSpesa':** Management and distribution of only 'light' bags, sourced only from surplus recovery or end-of-life produce (from organizations, neighborhood shops, etc.), with donations from the sale in-store and of transformed surplus food, used not to fund the 'complete' bags but solely to facilitate activities in support of vulnerable groups, or to invest in the service's development (purchase of bags, communication, labels, etc.).

**The mixed 'SOSpesa':** Management and distribution of a mix of 'light' and 'complete' bags, with a profit margin for the involved neighborhood food suppliers and with products of higher quality. This goes together with the further consolidation of fundraising through better engagement with neighborhood events, ad-hoc activities to build loyalty with selected businesses, connection with a limited number of major donors (i.e. Polimi's Alumni, companies' CSR programs etc.).

In both scenarios, the strength of the service relies in the neighborhood scale, where a network of solidarity actors can collaborate with a shared purpose and a clearer understanding of the collective value generated for the beneficiaries, encompassing both needy people and local businesses.

The experimentation made also emerge a few design strategies on how to develop a service out of an activism initiative, that is how to scale it out, up and deep.

A first cluster of strategies is aimed to avoid denaturation, keep the network committed in the medium-long term and engage it beyond 'SOSpesa': it is operationalized through *infrastructuring* actions, such as gathering actors, connecting them with a purpose (i.e. through co-design and co-production), engaging them in cultural and communication initiatives, thus creating the conditions for project-based communities to flourish. With this

regard, Off Campus NoLo has remained committed to operate as an 'agent' who can prompt action and help connect people around causes, finding room for all, ultimately help developing a sense of collective identity (Fassi and Manzini 2021, Meroni 2019). These strategies bring up the question of how to address an exit strategy and whether it is feasible.

A second cluster of strategies is aimed to reduce food waste, manage at the best the resources, and introduce technology: it is implemented through the design of activity models and service encounters (the service's back and front office) and the choice of technologies. Considering the fluidity of the system in terms of food, donations and people flows, the design is focused on a collective and continuous process of rethinking and refining the service's encounters, roles, and rules over the course of the project. This iterative process proved essential in achieving a balance between ambitions of the project and actual conditions /capabilities of the participants, leading to a more streamlined operation of the service. This is also the basis for its scalability through replicability, rather than increasing numbers (Morelli, 2015), although considering the readiness and maturity of different contexts. NoLo neighborhood, in fact, has proven to be one of a kind. Yet, the service may help the public administration to revisit some strategies against food poverty and food waste, notably through the evolution of the Milan Food Policy, by tapping on the potential of local communities. These strategies raise the issue of how to sustain the practice of continuously redesigning and adapting the service, and it ties into the earlier consideration of the exit strategy.

A final cluster of strategies is aimed to institutionalize the service and ground it in the neighborhood, supporting both people in need and local shops: it is connected to the goal of creating a culture of solidarity, mutual help, and pro-activity in all actors of the network, including beneficiaries. It is based on the idea of empowering people while supporting them with material or economic means: accordingly, 'SOSpesa' experimented with p2p involvement of the beneficiaries in the co-production of the service, combined job placement services with the delivery of the bags, trained the actors, made for the visibility of the service through capillary communication, and opened a debate on regulatory issues. Hence, it attempted to scale deep into the culture of the neighborhood and up to the institutions.

Ultimately, following the social innovation strategy for achieving broader influence and impact—namely, 'scaling out, up, and deep' (Moore et al., 2015)—'SOSpesa' engaged the local ecosystem to test each of them.

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