



Co-Creating Circular  
Resource Flows in Cities

constRuctive mEtabolic processes For material fLOWs in  
urban and peri-urban environments across Europe

**A REFLOW CASE STUDY**

# Finding the Bread and Butter in Milan's Circular Food Waste Solution

**Designing a Revenue Model for Circular  
Technological Innovations Addressing Food Waste  
and Social Exclusion**



*This project has received funding from the European Union's Horizon 2020  
research and innovation programme under grant agreement number 820937.*

# Finding the Bread and Butter in Milan's Circular Food Waste Solution

Designing a Revenue Model for Circular Technological Innovations  
Addressing Food Waste and Social Exclusion



Figure 1: Photo by [ja.ma](#) on [Unsplash](#)

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## Introduction

Known across the world for its influential food culture, Italy's relationship with food was unmistakable. However, in Italy's most fashionable city – Milan – a team of system designers, researchers, makers, and municipal actors were seeking to change the city's relationship with food and the way the urban food system was operating. These players joined together to make up the Milan REFLOW team. They operated as a team within the three-year EU Horizon 2020 project known as REFLOW, running from June 2019 to May 2022.

With the overwhelming amounts of food waste being produced across the city, the increased urgency of the climate crisis across the world, and a growing wedge dividing the socioeconomic statuses of citizens in Milan, the need to address these challenges were more pressing than ever. As part of the REFLOW project, the Milan REFLOW team set out to tackle these very challenges through the development of innovative circular economy<sup>1</sup> prototype solutions which would support in transitioning the urban food system towards becoming more circular and regenerative.

## The Challenge: A Commercial Transformation

It was April 2022, and the REFLOW project was ending in the next month. While the REFLOW project and its funding were ending, the work towards circular economy transitions within the urban food system in Milan was not. More work still needed to be done and REFLOW was just the beginning of Milan's journey towards becoming fully circular and regenerative.

During REFLOW, the Milan REFLOW team had worked closely together with key stakeholders, including the manager of the wholesale markets in Milan – Sogemi, the wholesalers themselves, and social enterprises fighting food waste and social exclusion to co-create, co-design, co-develop, and test a working prototype for the circular solution known as BOTTO. Despite the feedback and progress in the refinement of BOTTO over the three years within REFLOW, the solution still needed improvements and further development to ensure its sustainability as a scalable and successful circular intervention beyond REFLOW. This entailed further iterations and investments to the platform and its technical components, as well as operating, maintaining, and improving the service as a

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<sup>1</sup> A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extracting the maximum value from them whilst in use, then recovering and reusing products and materials. Within REFLOW the focus of the circular economy gradually extends beyond issues related to material management and covers other aspects, such as social impact, technological aspects and the evolution of urban governance structures.



whole. As a result, this required resources. With the end of the REFLOW project quickly approaching, the team agreed that BOTTO needed to become a business to fulfil its potential as a sustainable solution for the city beyond the timespan of REFLOW and to further their steps towards long-lasting impact. To do this, selling BOTTO as a service would check these boxes. But to have a viable business, it was critical for the Milan REFLOW team to find a financially sustainable revenue model that could support the daily management and operations, but which could also attract new investors to further develop the prototype.

With this in mind, the Milan REFLOW team leader had called a meeting to discuss the future of BOTTO. The meeting agenda was set out to discuss potential revenue models for BOTTO to ensure that this solution could sustain itself past REFLOW and ultimately generate long-lasting impact which tackled environmental, social, and economic challenges.

However, this task was not easy or straightforward. "Who pays?", "Pays for what?", and "How?" became fundamental questions for the Milan team.

The Milan team consisted of OpenDot, a group of system designers, in close collaboration with the Municipality of Milan, the Fab Lab WeMake and researchers from Politecnico Milan. While the Milan team had the technological expertise and know-how to bring together a network of key actors for the co-creation and development of BOTTO, the team members had little experience with the commercial side of business development. Thus, they decided to enlist the help of an external consultant with experience in business modelling to carry out this task of developing a sustainable revenue model for BOTTO.

Eva, a freelance consultant with experience in operations and strategy, was called into the meeting to assist the Milan REFLOW team. She had been given a week to review the situation and to provide a short presentation of potential revenue models to be presented in the meeting with the Milan REFLOW team. To prepare for the meeting, she knew that she should bring a couple of ideas to the table on how BOTTO could generate a sustainable revenue stream. Eva received a folder with information on the background in which BOTTO was developed and about BOTTO itself. To kick start her process of formulating a solution, she began diving into the provided information. First things first, Eva needed to understand the context in which BOTTO was developed. From there, she could dive into understanding what BOTTO was trying to solve, what it did, and who was involved.

## Food Waste in Milan

Food waste was one of the biggest challenges concerning circular economy in cities. Around 88 million tonnes of food were being wasted annually since 2016 in the EU, with



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associated costs of 143 billion euros<sup>2</sup>. At the EU-level, European countries were legally bound to the region's food waste measurement targets. These targets obligated member states to prepare food waste prevention strategies and encouraged food donation and redistribution<sup>3</sup>.

In Italy, these political groundings had helped to place progressive sustainable food policies at the national, regional, and municipal levels. In 2016, Italy enforced a national provision addressing food waste prevention and encouraging food (re)distribution and donation. This was addressed in the "Gadda" Law<sup>4</sup>, which targeted products in supermarkets, but also agricultural products from farms<sup>5</sup>.

Locally, the Milan Food Policy (MFP) was the municipal food strategy, targeting five priority areas:

- 1) provision of healthy food and water for all citizens,
- 2) promote the sustainability of the food system,
- 3) promote food education,
- 4) fight against food waste, and
- 5) support scientific research in the agri-food sector.

In tackling the challenge of food waste specifically, the MFP had outlined 4 guidelines for the city's food waste priority including:

- 1) reducing food losses and waste by promoting information and education for citizens and local actors
- 2) creating relations across local actors (charities and food banks) which promote the recovery and redistribution of food losses
- 3) promoting more rational packaging
- 4) promoting circular economy in the management of the food system

Based on these guidelines within the MFP, the municipality had implemented - and was part of - many forward-looking projects to address food waste and circular economy through their Food Policy. While food waste remained a challenge for the city of Milan, this was something they were actively trying to solve with the ambition to reduce their food

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<sup>2</sup> [https://ec.europa.eu/food/safety/food-waste\\_en](https://ec.europa.eu/food/safety/food-waste_en)

<sup>3</sup> [https://ec.europa.eu/food/safety/food-waste/eu-actions-against-food-waste/food-waste-measurement\\_en](https://ec.europa.eu/food/safety/food-waste/eu-actions-against-food-waste/food-waste-measurement_en)

<sup>4</sup> The Gadda Law, passed in 2016, is the first case of a law on the circular economy to be approved in Italy. The new regulations makes it easier and less bureaucratic for restaurants and shops to give excess food away to charitable causes.

<sup>5</sup> <https://www.gazzettaufficiale.it/eli/id/2016/08/30/16G00179/sg>



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waste by 50 percent by 2030. These projects included recovering waste from school canteens around the city, awareness raising campaigns, and important fiscal incentives to encourage the redistribution of food through donation. Economically, the municipality introduced tax reductions in connection with the donation of food surpluses, which provided fiscal incentives to reduce the amount of food waste for food businesses (supermarkets, restaurants, canteens, producers, market stalls etc.) through redistribution efforts. This measure reduced the tax on waste by a maximum of 20 percent for food businesses, which was granted proportionally to the amount of food being donated<sup>6</sup>.

## Milan's REFLOW journey

In 2019, Milan joined as a pilot city in the REFLOW project to focus further on their work in transitioning the urban food system towards circularity and tackling the food waste priority for the city. Milan was a major food hub, hosting some of Europe's largest wholesale markets. In Milan, there were four wholesale markets – a fruit and vegetable market, fish market, flower market, and a meat market. The Milan REFLOW team wished to tackle this transition through a focus on the Milanese fruit and vegetable wholesale market called Foody, which was managed by SogeMi. The decision to focus on fruits and vegetables was thought to generate a high degree of impact as fruits and vegetables incurred high levels of value loss given their limited shelf life. Compared to other food categories, fruit and vegetables had the highest wastage rate (40-50 percent) across other food streams. Moreover, by focusing on a key player in the urban food system – SogeMi – the Milan REFLOW team had the opportunity to incite real system change within Milan's food system.

With this starting point, the Milan REFLOW team had their sights set on developing a solution which could support in the city's overall aims of reducing food waste and which could generate a viable solution within the 3-year timespan of the REFLOW project. The team focused in on the food waste priority guideline, the recovery and redistribution of food losses, as it would not only help them to reach the municipality's 2030 goal of food waste reduction, but it would also be a source of co-benefits for the citizens of Milan who were in need by providing them with healthy and nutritious access to meals. The Milan team went to the drawing board and began developing an idea for a service that would enable the recovery and redistribution of fresh fruits and vegetables to charities seeking food donations<sup>7</sup>.

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<sup>6</sup> [https://projects2014-2020.interregeurope.eu/fileadmin/user\\_upload/tx\\_tevprojects/library/file\\_1561017431.pdf](https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1561017431.pdf)

<sup>7</sup> <https://urbact.eu/foody-zero-waste-new-hub-milan-general-market>



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## Complex Processes and Lack of Documentation

Although the city of Milan was heavily investing in reducing food waste underpinned by their progressive Food Policy, and many organisations were actively working on redistributing surplus food to citizens in need, Milan was still far from reaching the 2030 target it had set to reduce food waste by 50 percent. Even with economic incentive measures such as tax reductions for organisations donating their food, the Milan team still noticed that the potential of food waste being redirected through donation channels was not being fully exploited. There were still challenges to get actors on board with these processes. Many of these challenges had to do with the complex processes of food donation and the lack of documentation for reporting.

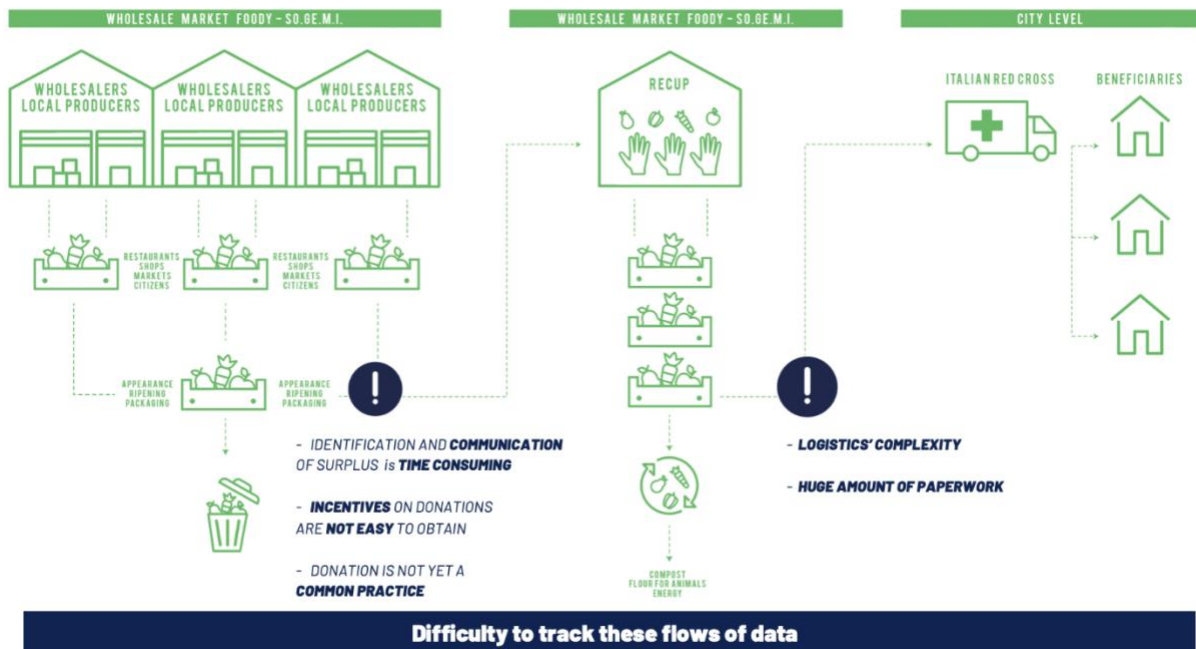
The current operations of the urban food system in Milan had made the process of donating food very complex and time consuming for all actors involved. The act of throwing away food as opposed to donating surplus to organisations was cheaper, faster, and less of a headache for suppliers – in the case of the Milan REFLOW team, the suppliers were the wholesalers in the market. On the receiving end, the organisations who had to organise donations and the pick-up of surplus food spent a great deal of their time on these logistics as opposed to other important operations that could advance them forward to helping more people in need. The current process of donation entailed a long list of logistics and administrative tasks for these organisations who needed to contact and seek out the different suppliers of surplus food on a regular basis to get a hold of their donations for the day.

Moreover, the process was manual – making it difficult for organisations and wholesalers supplying and receiving food donations to keep track of what they were giving and receiving. The Milan REFLOW team had witnessed these actors manually keeping track of their food surplus and donations with pen and paper during their site visits. This reporting was a key component for both sides of the donation process, as suppliers of food donations could receive tax reductions based on their claims and the receivers of the food donations could use this information for reporting to funders and donors about their efforts and could even attract future financial support.

There were also challenges associated with the unpredictable supply from markets supplying surplus food. This meant that the organisations receiving the food donations often did not know what type of food that was in surplus and what quantity they would potentially be supplied with. Consequently, organisations aiming to collect and utilise the food, mainly charities, were challenged because they did not know how many people they could feed and how many volunteers they would need to handle the surplus food donations. Overall, the coordination of distributing food in surplus created extra logistical expenditures both for the market as well as for the charities.



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## BOTTO Simplifies Donations

With challenges pervading both the food waste problem in Milan and the logistical operations of surplus food providers and receivers, the Milan REFLOW team saw this as an opportunity to intervene. From here, the idea for BOTTO was born.

BOTTO was a service platform that facilitated the reallocation of surplus food between fruit and vegetable wholesalers (the suppliers), organisations fighting food waste and other organisations helping people in need (the receivers), aiming to simplify the donation process. The platform included an automated communication system which ran through an IoT<sup>8</sup> device. Within REFLOW, the Milan team had developed a working prototype which allowed for the tracking and redistribution of food flows based on the blockchain network known as REFLOW OS. BOTTO itself was made up of two different components:

1. A physical device designed for wholesalers, for quick and easy reporting of surpluses. A very simple and intuitive device where wholesalers could simply press a button and a notification would be sent to the receiving association.

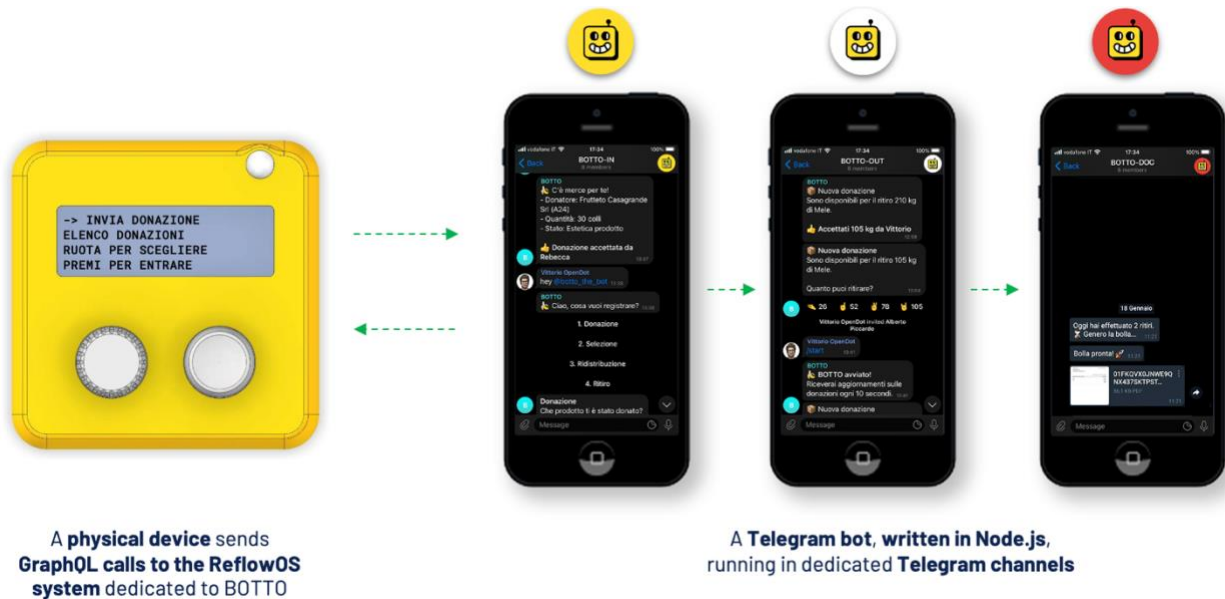
<sup>8</sup> Internet of Things refers to physical objects that allow for the exchanging of data with other devices and systems across the internet.



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2. A Telegram bot receiving notifications of donations managed the transfer of goods and kept track of all operations.



BOTTO worked by having the providers of surplus food (for example, wholesalers) report into the device the type of goods and the quantity of their surplus to an intermediary organisation who would handle the surplus food and manage its allocation to organisations looking for food donations. This intermediary organisation was the middleperson, responsible for handling the logistics. During the REFLOW project, the Milan team had onboarded the organisations called RECUP and Banco Alimentare as the intermediary organisations who handled this logistical process between the providers of food donation and the organisations redistributing the food to people in need. The intermediary organisations would handle all the goods and its data would be stored in one place. This data would then be automatically transmitted to the Telegram bot function of BOTTO. This Telegram bot operated as an online instant messaging service, like WhatsApp and Facebook Messenger.

From there, the charities who were looking food for donations to redistribute to people in need could get information about the type and quantity of surplus food available through BOTTO. The charities could then have a full overview of what was available and request for the food based on this overview. If there was a match, the surplus food would then be delivered by the intermediary organisation to the charity. Consequently, contributing to an efficient dispatch of resources.



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Additionally, the current production of food waste and flows within all the wholesale markets across Milan were not measured effectively. Through BOTTO, all the steps of the process, the notification, the collection, redistribution, and the delivery to beneficiaries would be tracked. The service also created an opportunity to digitize flows which provided valuable data for all stakeholders within the urban food system. BOTTO allowed these stakeholders to track the entire process with information that was vital for both the suppliers and receivers of surplus food. It was also beneficial for the municipality, as they could generate hard data and evidence that could support the creation of informed food and waste policies that could help Milan become more circular.

Importantly, from a data-perspective, BOTTO was the data owner. This meant that BOTTO held all the key information on these food flows. Thus, a key feature of BOTTO was the ability to automatically generate reports and data visualizations for the supplying and receiving stakeholders of food surplus and donations, and for the Municipality of Milan. Through this feature, suppliers of food surplus for donation would be able to report and claim their tax reduction for donations in an automatic way. The receivers of surplus food for donation would also be able to report on and understand the extent of their impact.

## BOTTO – The Prototype Solution

### **Simplified Donation**

*Wholesalers can simply press one button*

### **Reduced Expenses**

*Savings on waste handling, and reduces taxes*

### **Efficient Communication**

*Between wholesalers, collectors and charities*

### **Predictability**

*Botto addresses unpredictability of market supply*

### **Efficient Data Collection**

*Botto can track and monitor production of food waste and flows*

### **Strengthened CSR**

*And brand awareness*

## The Pilot Test Site and Redistribution Networks

Within the timeframe of the REFLOW project, the Milan team had co-developed BOTTO and tested the solution at the fruit and vegetable wholesale market in the city with the following key players:



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1. The Wholesale Market Manager (SogeMi)
2. Wholesalers
3. Intermediary Organisation (RECUP and Banco Alimentare)
4. Charity Organisation (Italian Red Cross)

Through this testing of BOTTO, these constellations of actors collectively tackled social exclusion and food waste. These actors made up BOTTO's redistribution network, each playing a role in the flow of food redistribution, and each gaining in benefit through the use of BOTTO.

During this testing phase of BOTTO, while the Milan team focused on implementing the prototype of BOTTO in Milan's fruit and vegetable wholesale market, they envisioned BOTTO's future implementation across the remaining three wholesale markets – fish, meat, and flowers. SogeMi, the management responsible for operating the 4 wholesale markets across the city, were evidently key actors within the urban food system and an important leverage point to instigating change within the system.



### The Enabler – SogeMi

SogeMi is a public institution that manages Milan's four wholesale food markets – for fruit and vegetables, fish, meat, and flowers. They are the nerve centre for exports and imports of food products in and out of Milan. SogeMi runs the markets on behalf of the Municipality, managing their spaces, the internal logistics and services to suppliers and to the public.

The wholesale markets span 650,000 square meters with over 1 million tonnes of products passing through every year. The turnover from the market, and related activities, is 2,500



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million euros a year. It is one of the largest European marketplaces for the wholesale trade of agri-food products<sup>9</sup>.

The Milan team focused on the wholesale fruits and vegetable market, **Foody** – the largest in Italy in terms of goods handled. It is characterized by their high quality and range of products. Prior to BOTTO, there was a great deal of uncertainty about how much of the food flowing through the market went to waste, but the most accurate estimate suggested that around 3 to 5.5 tonnes of food was thrown away daily.

SogeMi is committed to promoting food solidarity initiatives and has enabled several actions concerning sustainability and food recovery<sup>10</sup>. Currently, they are involved in various social initiatives with different stakeholders and charities. The Milan REFLOW team was one of their collaboration partners.



Photo & research credits: Polifactory

### The Donors of Surplus Food - SogeMi Wholesalers:

The **Foody** market is open 6 days a week, with around 170 wholesalers and 100 local producers selling and buying goods. Every night, between midnight and 4am around 200 trucks deliver products to the wholesalers in the market and until approximately 10am, 4000 buyers (restaurants and retailers) come to purchase their goods<sup>11</sup>.

In the testing phase of BOTTO, the Milan team worked with 4 wholesalers as donors of surplus food. These wholesalers would provide the feedstock of food surplus to be distributed to the intermediary organisation associations such as RECUP and Banco Alimentare.

The wholesalers are the main source of surplus food redistributed for donations. Each wholesaler is responsible for their own surplus food from their daily activities, and its related expenses.

<sup>9</sup> <https://www.sogemispaspa.it/sogemi-spa/chi-siamo/>

<sup>10</sup> <https://foodpolicymilano.org/lanciato-il-progetto-valore-al-mercato-ortofrutticolo-la-nuova-iniziativa-per-contrastare-lo-spreco-alimentare-a-milano/>

<sup>11</sup> <https://www.european-business.com/portraits/sogemi-spa/milans-freshest-picks>



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## Intermediaries - RECUP and Banco Alimentare della Lombardia

Both RECUP and Banco Alimentare act as intermediaries for the donation of surplus food and have been operating in the city for years, combating food waste and social exclusion. In addition to recovering food from the SogeMi wholesale market, they also work with other food providers and are active in the whole Milanese food scene.

The intermediaries usually recover food at the end of the day from wholesalers who freely decide to donate the products they otherwise would have thrown away. The food is then redistributed by them to charities. Numbers from Banco Alimentare's 2020 Social Report indicated that around 36 million meals were donated thanks to the food recovered and collected by the bank<sup>12</sup>.

While RECUP is run entirely by volunteers, Banco Alimentare is a larger regional food bank with 19 full time staff and 420 permanent volunteers (the largest social catering initiative in Italy). The day-to-day operations are thus reliant on the help of volunteers to manage donations, quantify and assure quality of the received resources, distribute fruits and vegetables in an efficient manner, and not least coordinate all the volunteers.

The intermediaries rely on donations from stakeholders such as companies, banks, foundations, and private individuals to keep their activities running. Additionally, they foster partnerships with supporting companies, which in return helps them achieve their social and environmental responsibility goals.

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<sup>12</sup>

[https://cdn3.bancoalimentare.it/sites/bancoalimentare.it/files/bilancio\\_sociale\\_2020\\_banco\\_alimentare\\_lombardia\\_0.pdf](https://cdn3.bancoalimentare.it/sites/bancoalimentare.it/files/bilancio_sociale_2020_banco_alimentare_lombardia_0.pdf)



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## Charity - The Italian Red Cross

The Red Cross has a large presence in Milan and is one of the charities that help with the redistribution of food waste to citizens in need from RECUP and Banco Alimentare. They work intensely on seeking out available surplus food and are also dependent on receiving various high-quality food for a worthy distribution to beneficiaries.

They have great knowledge of the needs of beneficiaries and with their distribution network they can reach a large pool of receivers located in the surrounding areas. The Italian Red Cross is a resourceful charity, with support from the Italian Government, but donations from individuals and companies are strengthening their social efforts.



*Photo & research credits: Polifactory*

## Willingness to Pay

After implementing and testing BOTTO at the fruit and vegetable wholesale market, the Milan team had had the chance to understand the various players of the urban food system and redistribution networks. They were also able to get them involved with BOTTO and offer them with the ability to facilitate an efficient donation process of surplus food which benefitted all parties. However, with the REFLOW project coming to an end and the need for ensuring the future sustainability of BOTTO as a business, the Milan team had to take their learnings and understandings to generate a viable revenue model. Otherwise, they risked all their efforts of creating an innovative circular solution to help combat food waste and social exclusion going to waste.

However, creating a revenue model to generate a sustainable income stream was no easy mission. With Eva onboard as a consultant, she needed to carefully understand the needs of the different actors in the Milanese food network to recognise the balance between each actor's value capture and risks, and accordingly, their ability and willingness to pay.

Convincing the wholesalers in the market to use and pay for BOTTO as a solution to their food waste and to improve their environmental and social image as a company was still quite a systemic barrier. The culture of the wholesalers still had many habits and routines which made throwing away surplus food faster and cheaper. And for these wholesalers, time was money. However, through BOTTO, the Milan team was able to offer potential cost



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savings through a more simplified donation process, and thus reduced taxes on their waste. But could the wholesalers be convinced of paying for this service since they were already providing a service in goodwill?

For NGOs/charities, a guarantee for quality and diversity of food was important. They could not risk promising food to people in need that did not provide them with nutritious and balanced meals. It happened very often that these organisations would receive a mass amount of only one type of food or food of bad quality, which was not sufficient for providing citizens in need with healthy and nutritious meals. Therefore, the Milan team had worked endless hours on refining the technology towards improved distribution of different types of food waste and a better understanding of the available resources. But still, were they able to assure the continuous quality that NGO/charities demand? Additionally, could the Milan team ensure constant demand and hence a worthy return on investment for NGO/charities using BOTTO?

For the overall management of the wholesale markets in Milan, SogeMi had an influential role in the urban food system and could therefore trigger a systemic-wide transformation to the current flow of food in the city. As the key actor orchestrating the management of the market, SogeMi had the ability to shape the culture of their food markets. For them, it would be about adopting BOTTO across all wholesalers and perhaps making BOTTO a mandatory feature for the wholesalers across the wholesale markets. By doing this, SogeMi had the power to be the actor of change and a role model in Milan and beyond. It would show that they took the issue of food waste and the challenges of social exclusion seriously, making them frontrunners in the fight against climate change and social inequalities. There would be a lot in relation to their image to gain. But would they be willing to pay for BOTTO? Would these returns be enough for them?

Overall, BOTTO created most value if the whole market implemented it. However, donation, collection and distribution comprised a cluster of several kinds of entities with different motivations, capabilities, and value capture of using such a platform.

## Similar Services

At the time, there were no direct competitors to BOTTO, which encompassed all its features and services it had to offer. Yet, there were companies across the world that ran different types of digital platforms who redistributed and saved food from being wasted. Hence the idea of a digital redistribution system was not necessarily unique. In the US, the organisations such as Food Rescue Hero and Food Rescue US used an app to coordinate redistribution. In Europe, the charity Plan Zeroes and the company Too Good to Go also



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used digital platforms to address food waste and its recovery. The two latter had rather different business models and revenue streams.

### **Plan Zheroes**

Plan Zheroes, is a UK charity, operating a food donation platform which organisations and charities can register for. Both businesses (the food suppliers) and local charities (those in demand for food supplies) create accounts on the platform. Businesses can post donations of their leftover food and charities will receive emails about the food donation which they then can claim and pick up at a scheduled time.

Plan Zheroes, operates with a membership programme, offering a freemium model for being part of the platform. A premium is charged for additional features such as access to reports on each customers food donations which can be used for evidencing social and environmental impact. However, Plan Zheroes cannot operate with the income from the premium membership alone, and are still reliant on individual donations, sponsors and partners<sup>13</sup>.

### **Too Good To Go**

Too Good To Go uses a mobile app to redistribute food from food businesses to customers. The company saw its first light in Denmark in 2015, but the company's application has now reached markets in most European countries and recently started operations in North America. Too Good to Go is now the world's largest Business to Consumer Platform aiming to fight food waste.

Too Good To Go<sup>14</sup> offers a free app, which allows users to browse unsold food from shops, restaurants, bakeries, and cafes in their local area. Through the app, customers can purchase "magic bags", filled with around 1 kg of food, at a discounted price. Too Good to Go's revenue stream comes from their business partners, who either pay a yearly subscription to the platform or a small commission fee for each meal sold<sup>15</sup>. Their model creates a win-win situation where food businesses make some extra cash on food that otherwise would have been thrown away, and customers win by getting good food for a discounted price.

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<sup>13</sup> <https://planzheroes.org/contact-us/>

<sup>14</sup> <https://toogoodtogo.org/en/>

<sup>15</sup> [https://zerowasteurope.eu/wp-content/uploads/2020/01/zero\\_waste\\_europe\\_CS7\\_CP\\_TooGoodToGo\\_en.pdf](https://zerowasteurope.eu/wp-content/uploads/2020/01/zero_waste_europe_CS7_CP_TooGoodToGo_en.pdf)



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## Time to Decide

During REFLOW, the Milan team had worked on a smaller scale testing BOTTO with a handful of wholesalers and organisations within one wholesale market, with EU funding backing the project. With the REFLOW project ending, the Milan team needed to scale up the solution BOTTO, to be able to sustain itself on its own. If they didn't find a way, the work they had undertaken to develop this innovative solution would be lost and Milan's journey towards a circular urban food system would risk taking a step back. This meant that they needed to generate new revenue streams and find new investors that could support BOTTO's next chapter.

To run BOTTO, costs were divided between fixed, semi-variable and variable costs. Costs were associated with developing, producing, and programming the physical device, as well as the software and the Telegram bot. Marketing and communications as well as salaries would also be a significant cost. Other costs concerned the facilitation and maintenance of the backend, which included the necessary technology used to develop the solution. Additionally, there would be costs related to maintaining the technologies, by paying the domain and work of developers. Furthermore, variable costs would occur related to BOTTO's expansion to other cities beyond Milan and the scaling of the solution.

All in all, revenue to run BOTTO needed support for its operating costs and expenses. The Milan REFLOW team's primary idea was to sell BOTTO as a service. They had touched upon the idea of some sort of platform model with Eva, without going in depth on how this potentially could look like.

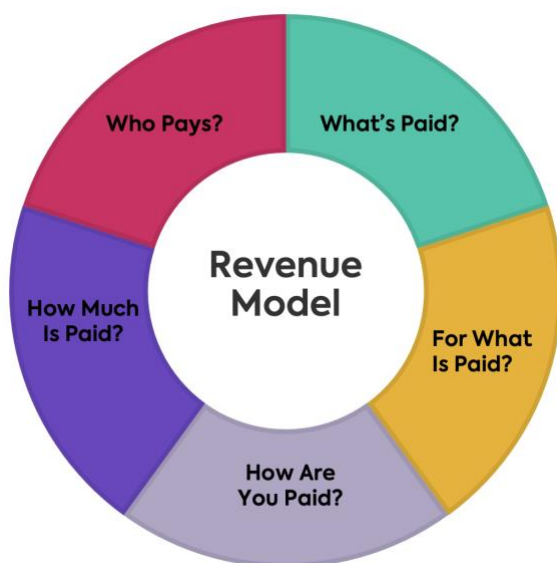
The meeting with the Milan REFLOW team was fast approaching. With this bulk of information, Eva started to become well acquainted with the complexity of the situation and challenge that the Milan team was faced with but needed to get started on her work. Having worked on similar issues for other companies, she was confident that she would have something to bring to the table.

## 5.0 Guiding steps/questions:

1. Identify the stakeholders of BOTTO and their relation to the value offered
  - a. How is the solution creating gains, and reducing pains for the stakeholders?
  - b. In sum, which stakeholder has the most benefit from BOTTO, and consequently most likely to accept to pay?
2. Evaluate revenue model options
  - a. Which generic model are the competitors / similar business using?
3. Select revenue model adapt and adjust to case
  - a. Who pays? What's paid? For what is paid? How are you paid? How much is paid?



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