



Comune di
Milano



THE
EARTHSHOT
PRIZE

Report

LOCAL FOOD WASTE HUBS CO-DESIGN WORKSHOP

Elaboration of the needs and solutions that emerged in the co-design workshop set up to enhance Neighbourhood Hubs to combat food waste.

30 March 2023, Civic Aquarium, Milan



Photo by [Emmanuel Mbala](#) on [Unsplash](#).



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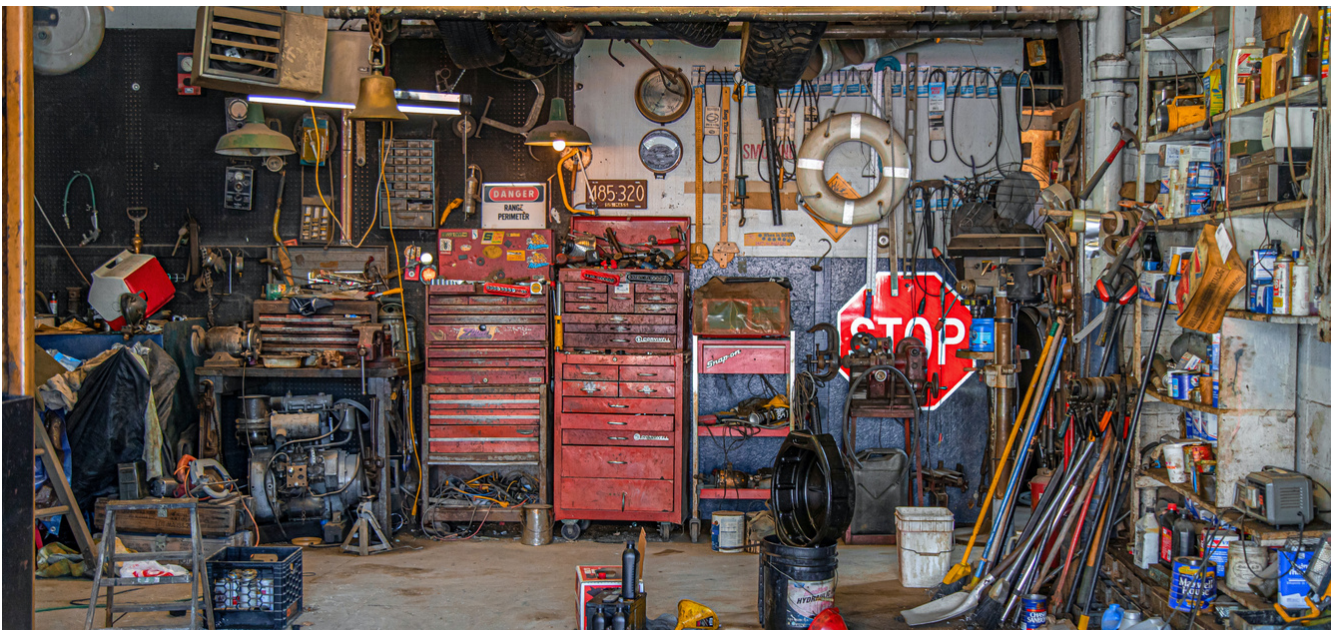


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The co-design procedure

This report presents the contents that emerged during the co-design workshop held in Milan on 30 March 2023 at the Civic Aquarium and promoted by the Municipality of Milan and its partners for the investment of Earthshot Prize resources in the enhancement of the network of Neighbourhood Hubs to Combat Food Waste, in implementation of the Milan Food Policy.

4 1M
Phases Euro

The procedure adopted to develop this over one million Euro investment is divided up into preparatory and subsequent stages, codified in Articles 55-57 of the Third Sector Code, and summarised here:

- **co-design Workshop**, at this stage the Municipality published a public notice for the selection of Third Sector entities with which to co-analyse the context and assess the best options for investing resources in solutions that effectively meet emerging needs. The phase consists of an in-person workshop and a subsequent online consultation.
- **Co-Design Notice**, at this stage, on the basis of the evaluations that emerged from the workshop, the Municipality publishes a public notice divided up into lots each assigning specific budgets, for the purposes of collecting projects from Third Sector entities.
- **Co-Design Roundtable**, at which the Municipality and its partners convene eligible Third Sector entities to evaluate project ideas and define individual action plans in detail.
- **Implementation of funded projects.**



Neighbourhood Hubs Partners

- Municipality of Milan
- Politecnico di Milano
- Assolombarda
- Fondazione Cariplo
- Banco Alimentare della Lombardia
- Terre Des Hommes
- IBVA Solidando
- Italian Red Cross - Milan
- BCC Milan
- Milan Foundation
- SNAM Foundation
- AVIS Milan
- NumberOne
- SogeMi
- University of Milan
- Recup
- Caritas Ambrosiana
- Eco Dalle Città
- Pane Quotidiano

Local Food Waste Hubs model to reduce food waste

Over the past 4 years (2019 - 2022), a Network of Neighbourhood Hubs to Combat Food Waste has been set up and expanded on the basis of a model in which the various actors involved in the implementation of the system take part in, and share, its functions and responsibilities: Politecnico di Milano and Assolombarda, the Qubi programme and Fondazione Cariplo, Milan's municipalities, the individual hubs' managerial bodies and their supporters.

4

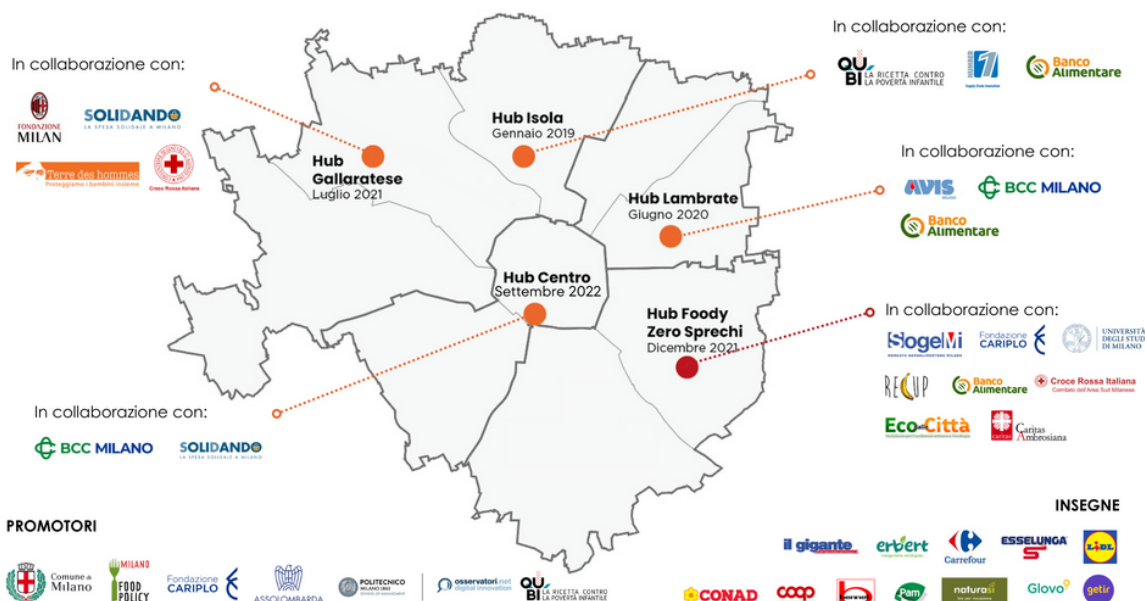
+1

Neighbourhood Hubs Foody Hub



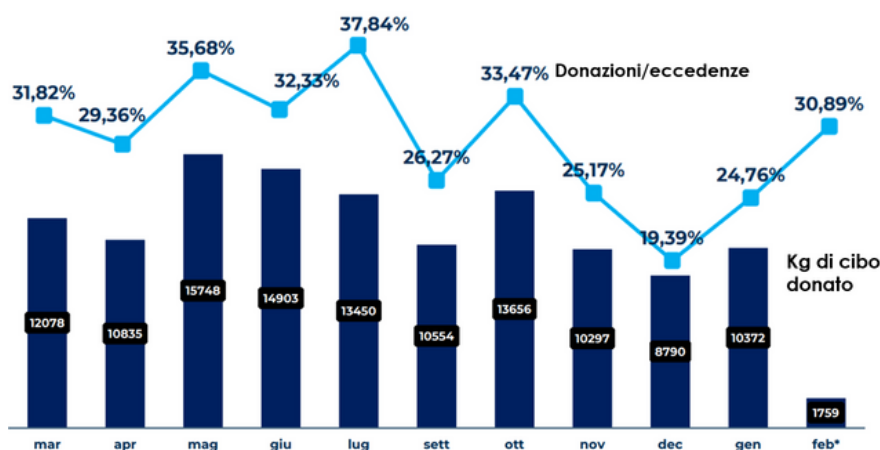
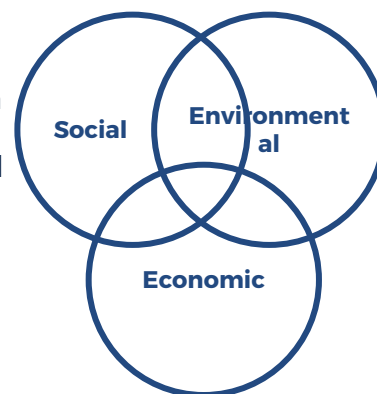
To date, four hubs are active in the city: Isola, Lambrate, Gallarate, Centro; an additional hub in the Corvetto district is at the planning stage.

A further experience is the Foody Zero Waste Hub set up in a pavilion at Milan's fruit and vegetable market, thanks to a synergy between the Municipality of Milan, Fondazione Cariplo, the University of Milan, and Third Sector entities active in the collection and redistribution of surplus fruit and vegetables.



The impact of the hubs

By acting on the food waste paradox, hubs succeed in simultaneously achieving multiple sustainability impacts of a social (food for those in need), environmental (avoiding wasting natural resources) and economic (saving money and avoiding losing commercial value) nature. Within the hubs, operators, the Politecnico di Milano and the Municipality of Milan constantly measure these impacts on the basis of the following systems.



SDG 8 Economic growth

Hubs save the economic value of food, avoid food purchases and generate savings in the non-management of OFMSW.



SDG 2 Zero hunger

Hubs help to increase food supplies for the most vulnerable segments of the urban population.



SDG 17 Partnership

Hubs help to develop multi-sectoral partnerships in neighbourhoods between public, private, social and academic actors.



SDG 9 Infrastructure

Hubs enhance the cold chain management and micro-logistics development infrastructure disseminated across the territory.



SDG 12 Responsible consumption

Hubs enable stakeholders to increase their understanding of food waste and develop preventive mechanisms.



SDG 11 Sustainable cities

Hubs enable the city to develop innovative solutions to contemporary paradoxes.

Participants & working method

The co-design workshop was attended by third sector entities which applied for the relevant **Public Notice**, published on the municipal website. All 36 third sector entities expressing interest in participating were admitted. The individual TSEs were given the opportunity to send 3 representatives, to enable them to take part in all parallel working groups.

36	72
TSE candidates	Registered people

They were joined by 12 partners from the Municipality and invited by the latter, who have worked with the administration for years on the development of the Neighbourhood Hubs. A total of 89 TSE and partner participants attended the workshop.

+12	17
Invited partners	Registered people

The participants were divided up into three working groups:

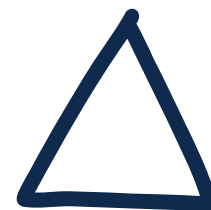
- 1 Enhancing existing hubs**
- 2 Opening new Neighbourhood Hubs**
- 3 Innovative proposals to integrate into the hub system**

3	3
Working groups	Workshop hours

With the help of project sheets and moderated by the Municipality, the individual groups were asked about needs and solutions initiating dialogue between participants. At the end of the group work stage, the contents were taken back to the whole organisation.



1 Enhancing Existing Hubs



At present, the five active hubs in Milan have developed to different degrees.

The group discussed how to enhance Milan's active hubs, focusing on the most successful experiences and involving hub managers and other ETSS expressing interest in this solution. Participants were asked to come up with needs and solutions.

The group reflected on needs, firstly by filling in individual forms, summarised in a post-it note presented to the group to initiate a collective discussion on common understanding of needs.

Afterwards, the individual participants filled in a second personal solution sheet (max. 3 solutions), then summarised one of them on a post-it note to present to the whole group and assessed its degree of feasibility and impact on a Cartesian axis.

Main themes emerging

Medium to long term economic sustainability

A need to start reflecting on ways to enable already established hubs to sustain their work over time emerged, including through direct access to national and international funding, and innovative methods such as crowdfunding, fundraising, etc.

The resources to be sustained are not simply logistics and space maintenance considerations, but also relate to the retention of hired staff to ensure managerial continuity.

Training for actors involved in management

Expanding hub action requires investing in the training of those involved in their management on economic management, donation management, food education, and use of computer software.

Hub consolidation within the socio-territorial fabric

The role of the hubs could potentially be enhanced by acting on neighbourhood involvement and the formal and informal groups within it, acting as an aggregator of resources and a catalyst for generative community welfare processes.



01 Emerging needs

The group focused on the following 6 priority topics, collecting a total of 60 needs, which were then summarised in 25 post-it notes discussed with the entire group.

60 Needs collected

25 Post-it notes discussed



Everyday management resources

Finding economic resources to ensure hubs' economic sustainability over time: supporting staffing needs (coordinating volunteers and handling data entry, driving vehicles); supporting experimental initiative costs, such as food processing (equipment maintenance, packaging, etc.).



Improving the management and quality of donated goods

Providing training on specific topics (warehouse management, donation quality, use of IT tools); finding ways to ensure the permanent presence of staff trained in food management and logistics capable of supporting and coordinating volunteer resources.



Shared governance

Centralised management in both governance and logistics terms and sharing means/resources; coordinated collection and delivery system that increases efficiency while reducing environmental impact.



Standardisation of relations with FBOs

Increasing quality of donated goods, rationalising and standardising collection methods (timing, communication, means), shared way of involving new signs.



Knowledge exchange

Sharing information externally (improving the quality of information provided to the Municipality and partners, in addition to volume data) within the system, facilitating networking (especially integration with smaller groups).



Integration with social support services

Integrating food policies with social policies to avoid the risk of a mere aid-based approach and broaden the catchment area.



01 Proposed solutions

The group shared 29 solutions, summarised in 15 post-it notes presented collectively. The 4 proposed solutions summarise the main issues discussed.

29

Solutions
collections

15

Post-it
notes



Shared governance tools

Define representative shared governance bodies (steering groups, coordination staff, multi-disciplinary teams) structuring their operating methods, skills and functions, meeting frequency, etc. Tool to be honed in the co-design phase.



Qualified staff and advice

Inclusion of appropriately trained staff for administrative and logistical management. Evaluate protected employment routes (e.g. work grants). Explore the possibility of using consultants for specific topics (management, nutritional education).



Mapping the existing

Fostering twin track knowledge: on one hand, making the functioning of the hubs visible to other local groups and, on the other, providing hubs with knowledge of neighbourhood social and associative fabrics to enable them to capitalise on their connections.



Generative and community-based welfare

Enhancing networks and partnerships with third sector entities for the implementation of projects making the hubs the focal point of a complex system of personal and community service provision (support for parenthood, employment of disadvantaged categories, nutritional education and health protection).



2 Opening new hubs



Five hubs are currently active in Milan, covering most of the city's districts but leaving some districts out.

The working group questioned how to facilitate the emergence of new hubs in some currently undeveloped areas (M2, M5, M6, M7), including by considering that organisations with expertise and small bodies applying some of the hub working methods already exist.

The group questioned the needs, first by filling out individual forms, summarised in a post-it note presented to the group, in order to initiate a collective discussion on the common understanding of needs.

Afterwards, the individual participants filled in a second personal solution sheet (max. 3 solutions), then summarised one of them on a post-it note to present to the whole group and assessed its degree of feasibility and impact on a Cartesian axis.

Main themes emerging

Provision of training services for beneficiaries

The neighbourhood hubs do not simply redistribute foodstuffs, but they are also involved in the education and reintegration into the labour market of families in need of assistance, with job placement courses. It would be interesting to complement the hubs with a spending and work education model.

Average duration of support for beneficiary households

Individuals and families generally need 3-4 years of support. Associations tend not to guarantee assistance for longer periods because direct support is to be considered an intermediate, not a permanent, solution, and this must be followed by a return to the labour market.

Hub coordination

Food surpluses are by their nature inconstant and hubs often have surpluses of a single food item. A digital platform for communication and coordination between hubs would ensure greater diversity in diets and systemic resilience.



02 Emerging needs

The group focused on the following 6 priority topics, collecting a total of 78 needs, which were then summarised in 20 post-it notes discussed with the entire group.

78 Needs collected
20 Post-it notes discussed



More space for logistics

Neighbourhood hubs need more space (rooms, warehouses, containers) and often struggle to find these because real estate agencies tend to avoid renting space for this type of service, for fear of making the property less attractive.



Involvement of small shopkeepers

Involvement of small neighbourhoods in surplus food donations, in addition to large supermarkets and work canteens.



Hub coordination

Coordination through a shared digital platform that informs the various hubs of common surpluses to be distributed gives hubs the autonomy to self-regulate amongst themselves.



Logistics hubs for cold chains

Centralised cold storage systems and co-ordinated logistics enabling hubs to collect fresh goods from common cold storage facilities, without having to bear the cost individually. Involvement of experts in integrated micro-mobility models for the redistribution of surpluses to families.



Nutrition education

Introduction of nutritional, shopping and food preparation education. Teaching food processing practices, such as fermentation, preparation of sauces and jams, to be carried out by associations and volunteers with the contribution of families requesting assistance.



Integration with composting

Introduction of solutions to reduce further food waste in hubs through composting, linking in with local farmer networks.



02 Proposed solutions

The group shared 39 solutions, summarised in 15 post-it notes presented collectively. The 4 proposed solutions summarise the main issues discussed.

39 15
Solutions collected Post-it notes discussed



Common storage area

Cross-hub areas for storing surplus foodstuffs that can be shared by the hubs, with cold storage and workshop space, processing workshops, composting areas and integrated micro-mobility for redistribution.



Food education project

Joint nutrition, shopping, food preparation and storage education, involving Milanese restaurants and chefs as volunteers, or other associations.



Digital gift tracking

App/software which tracks food availability with the various actors and facilitates exchanges between hubs.



Involvement of neighbourhood groups

Project to involve neighbourhoods in donating surpluses and volunteering in support of hubs and cross-hub areas.



3 Innovative proposals



The working group discussed further innovative proposals which could potentially be developed and aggregated into the Neighbourhood Hubs model. Compared to the other two groups, it is open to listening and collecting further ideas for cross-enhancement in a structured manner, focusing on the maximum use of these widespread micro-infrastructures. The roundtable was attended by both operators, key partners of the initiative and newcomers.

The group reflected on needs, first by filling in a personal card, summarised in a post-it note presented to the group, so as to initiate a collective discussion for a common understanding of needs.

Afterwards, the individual participants filled in a second personal solution sheet (max. 3 solutions), then summarised one of them on a post-it note to present to the whole group and assessed its degree of feasibility and impact on a Cartesian axis.

Main themes emerging

Digitisation of the FBOs - hub - TSEs relationship

Need for improved relations between the various hub actors in order to build a digital liaison platform between the needs (food, logistics, workforce) and resources (surpluses, means, volunteers, training) that the actors intend to pool; also widening the audience of donors to municipal markets and small shopkeepers.

Collaborative logistics between actors

Need for the development of a centralised food logistics system based on multiple means of transport (cargo-bikes, vans) to take advantage of the means and resources available to all TSEs in the area, enhancing them for both hubs and the Food Aid Device.

Hubs as community spaces to intercept need

Need for evolution of hubs from surplus logistics venues to places in which TSEs can better intercept social and not only food needs.



03 Emerging needs

The group focused on the following 6 priority topics, collecting a total of 72 needs, which were then summarised in 33 post-it notes discussed with the entire group.

72 Needs collected
33 Post-it notes discussed



Processing of surpluses

Increasing the useful life of surpluses, both by refrigerating and processing through economic activities involving re-employment. Development of income-generating activities to contribute to hubs economic sustainability. Spreading economic value in the territory.



Listening to beneficiaries' needs

Integration of the axis of mutualism through the protagonism of the beneficiaries. Analysis of the needs of the final beneficiaries. Selection of beneficiaries through criteria other than ISEE.



Relationships and Community

Hubs as integration points in the territory. Poverty listening point (material and immaterial). Optimisation of connections between local actors. HACCP food safety training.



Digitisation of the supply chain

Collect and manage donations and related data, according to quality. Integration of data on beneficiaries at a knowledgeable level. Measuring the impact of the hubs.



Engaging other surplus generators

New modes of engagement of FBOs on the quality and mode of giving. Intercept all actors generating surpluses in neighbourhoods (caterers, company canteens, markets, universities, small shopkeepers).



Communication to citizens

Involvement of citizens through communication and awareness-raising campaigns. Food-based cultural activities in the hubs. Multi-label certification system.



03 Proposed solutions

The group shared 49 solutions, summarised in 27 post-it notes presented collectively. The 4 proposed solutions summarise the main issues discussed.

49

Collected solutions

27

Post-it notes
discussed



App digitising relationships

IT platform 'emergency surplus intervention' to connect hub actors (FBOs, TSEs, Municipality, Polimi, Supporters).

Monitoring input and output flows of each donation.

Monitoring of needs

assessments expressed by

TSEs. Platform for sharing resources between hubs

(volunteers, surpluses,

training).



Shared logistics

Shared transport system between hubs and TSEs, providing **vehicles and drivers** for both retrieval and delivery directly to TSE sites. Small donations through **cargo bikes**.



Integration with municipal markets

Strengthening and increasing collection from **open municipal markets** through new volunteers and dedicated human resources.

Facilitating donations of surpluses from markets to hubs.

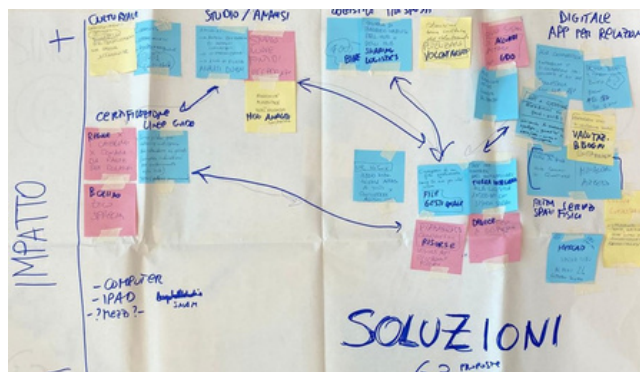


Studies, analyses and guidelines

Micro study on new sources of surplus.

Mapping of collection services already active and connectable to the hub.

Guidelines for donations and FBOs interested in donating, developing a standard.



Priorities for intervention



Following the workshop, Third Sector entities and partners were invited to express through an **online questionnaire** their priorities for action based on the AHP (analytic hierarchy process) methodology for multi-criteria decision support. The exercise enabled the prioritisation of needs and the definition of possible solutions.

Likewise, partners were invited, if interested and available, to express their willingness to provide additional resources in the subsequent co-design process.

Below the graph represents the quadrants aimed at cross-referencing priorities for TSEs and partners in order to identify topics of common interest.

● Needs

The working groups shared **210 needs**, summarised in **78 post-it notes**, on the cards presented by each participant within their group. The main needs that emerged from the comparison were organised by the municipality into these **18 needs** detailed in the report.

NEEDS	PARTNERS	BODIES	TOT
3.4 Digitisation of the supply chain	4.00	2.63	3.32
1.1 Resources for ordinary management	3.57	2.95	3.26
3.5 Engagement of other surplus generators	3.14	3.16	3.15
1.3 Shared governance	3.29	2.95	3.12
1.5 Knowledge exchange	3.14	2.95	3.05
1.6 Integration with social support	3.14	2.95	3.05
3.3 Relationships and communities	2.71	3.26	2.99
2.3 Hub Coordination	3.29	2.68	2.98
3.2 Listening to beneficiaries' needs	2.71	3.16	2.94
2.1 More space for logistics	3.00	2.79	2.89
3.6 Communication to Citizens	2.86	2.89	2.88
1.4 Standardisation of relationship with GDO	3.14	2.58	2.86
1.2 Improving management and quality donated	2.57	3.11	2.84
2.5 Nutrition education	2.86	2.79	2.82
2.4 Logistics poles for cold chain	2.71	2.74	2.73
3.1 Processing of surpluses	2.86	2.58	2.72
2.2 Involvement of small shopkeepers	2.29	2.79	2.54
2.6 Integration with composting	2.29	1.79	2.04

Solutions

The working groups shared 117 solutions on the boards, summarised in 62 post-its submitted by each participant within their group. The main solutions discussed were organised by the municipality into these 12 solutions detailed in the report.

SOLUTIONS	PARTNERS	BODIES	TOT
3.2 Shared logistics	3.71	3.00	3.36
3.3 Integration with municipal markets	3.14	3.26	3.20
2.4 Involvement of neighbourhood realities	3.00	3.37	3.18
3.1 App to digitise relationships	3.71	2.63	3.17
1.1 Shared governance tools	3.14	3.11	3.12
1.4 Generative and Community Welfare	2.86	3.21	3.03
3.4 Studies, Analyses and Guidelines	3.43	2.53	2.98
1.3 Mapping the existing	3.00	2.95	2.97
2.2 Food education project	3.29	2.58	2.93
2.3 Digital gift tracking	3.43	2.32	2.87
1.2 Qualified personnel and consultancy	2.57	2.68	2.63
2.1 Common storage area	2.57	2.68	2.63

The analysis of the data in the 4 intervention quadrants returns a substantial homogeneity in the interpretation of both needs and solutions by the TSEs and the Municipality and partners. All topics of intervention are in fact in the fourth quadrant, which represents the common interest of the two clusters of analysis.



Return to participants

On 19 June 2023, a restitution meeting was held remotely to present the results of the co-design process. During this session, there was a sharing of the structure and contents of this report, which is a relevant document for the analysis and evaluation of the entire co-design. Through the presentation of this report, participants were made aware of the highlights, challenges and opportunities that emerged along the way.

Another key aspect of the meeting was the sharing of the results of the online questionnaire addressed to organisations and partners, and developed according to the AHP (analytic hierarchy process) methodology. This survey provided a **detailed overview of the opinions, preferences and needs** expressed by the various stakeholders. The presentation of the survey results allowed for a greater understanding of the different perspectives and helped to further guide the development of future strategies.

During the restitution meeting, the next steps to be taken to foster co-design were also presented.

These next steps include concrete actions and specific activities that aim to translate the shared objectives into tangible results. By sharing this information, the enthusiasm and commitment of the participants was maintained, strengthening their sense of belonging and the importance of collective action.

A recurring theme during the meeting was the emphasis on the **collective dimension and shared, multi-level governance**. This perspective makes it possible to take into account the different points of view and to enhance the skills and knowledge of each actor involved in the co-design process.

Responded to the Public Notice:

Acea ODV
Alveare Association
Aquilone onlus Foundation
Archè Foundation
Azione Solidale
Banco Alimentare
Comin
Comunità Nuova
Cooking Lab
Cooperation and Technology
Forum
CSV Milan
Diapason Cooperative

Emergency
EStà
Handicapsullatesta
IBVA
Italian Red Cross - Milan
Magma Social Enterprise
Milano Positiva APS
Molise Committee
Niguarda Common Garden
Nocetum Centre
Opera Cardinal Ferrari
Pane Quotidiano
Eco dalle Città

Porto di Mare Association
Progetto Arca Foundation
Recup
Remar
Rob de Matt
Semplicemente Amore
Association
Supporto Popolare Milan
Terre des Hommes
Terzo Paesaggio
Volunteer Brigades
Zero 5

Conclusions

During the workshop, the 89 participants were invited to contribute to working groups, representing both an exercise in collective intelligence on a topic of common interest and an opportunity for mutual learning and the development of new relationships between individuals.

The results of the collection of needs and solutions were returned to the participants, asking them to prioritise their interest according to their own point of view.

In addition, the meeting provided an opportunity for the participating organisations to share the results of their specific analyses, highlighting the needs and priorities emerging from their respective realities. This mutual sharing allowed for mutual enrichment and a deeper understanding of the challenges and opportunities at hand. The aim was to identify possible points of convergence and to adopt a synergetic approach to tackle common problems.

In the next phase, with the launch of the call for co-planning, the contents shared in this phase will form the basis for the work of individual Third Sector entities in developing their own applications.



Report Co-design Workshop



This report returns the contents of the discussion that took place during a co-design workshop on Neighbourhood Hubs to Combat Food Waste, organised by the Municipality of Milan and open to 48 actors including Third Sector entities and partners of the initiative.

The discussion focused on the emergence of needs and the sharing of solutions for the enhancement of existing hubs, the opening of new ones and the development of innovative proposals. This document will form the basis of the subsequent co-design call for the selection of implementation proposals.