

Alimenta: A design-led systemic action against homelessness-related food poverty

*Original*

Alimenta: A design-led systemic action against homelessness-related food poverty / Campagnaro, Cristian; Passaro, Raffaele; Curtabbi, Giorgia. - In: INTERNATIONAL JOURNAL OF FOOD DESIGN. - ISSN 2056-6522. - ELETTRONICO. - (2023), pp. 1-31. [10.1386/ijfd\_00063\_1]

*Availability:*

This version is available at: 11583/2982842 since: 2023-10-08T07:31:57Z

*Publisher:*

Intellect

*Published*

DOI:10.1386/ijfd\_00063\_1

*Terms of use:*

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

*Publisher copyright*

(Article begins on next page)

**International Journal of Food Design**

© 2023 The Author(s). Published by Intellect Ltd. Article. English language.

Open Access under the CC BY-NC-ND licence. [https://doi.org/10.1386/ijfd\\_00063\\_1](https://doi.org/10.1386/ijfd_00063_1)Received 11 May 2021; Accepted 8 May 2023

---

**CRISTIAN CAMPAGNARO**

Politecnico di Torino

**RAFFAELE PASSARO**

Politecnico di Torino

**GIORGIA CURTABBI**

Politecnico di Torino

# Alimenta: A design-led systemic action against homelessness-related food poverty

**ABSTRACT**

*This article presents a project carried out as a design-led systemic action aimed at tackling food poverty among people experiencing homelessness in Turin, Italy. Building on their experience in this project, the authors discuss the complex and multidimensional nature of homelessness-related food poverty within a mature socio-economic context and argue how design enabled systemic actions to understand and tackle this phenomenon. First, the article describes the birth and development of the ongoing project. It outlines the background scenario within which Alimenta started eight years ago, by presenting the issues and the spotty response to food poverty performed by the civil society and the city administration at that time. Then, it outlines how Alimenta was designed to address the health and social needs related to the scarcity and the qualitative deficiencies of food resources for the people hosted in the city's public shelters. It highlights the relevance of the*

**KEYWORDS**

homelessness  
food poverty  
food access  
complexity  
participatory approach  
systemic approach

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

*multi-stakeholder perspective and of the co-design and co-production approach – promoted by the project team – in allowing the city actors to better deal with food poverty and to counter the several criticalities at stake. Second, the authors describe how by enabling multi-level relationships between local actors, and by coordinating and facilitating actions pursuing different objectives, Alimenta has contributed to a systemic response to the material and immaterial aspects of food poverty. The article thus presents the achievements of the project regarding the well-being of the beneficiaries and the new local food system created. Finally, a focus is given to the knowledge that the project has generated in relation not only to the phenomenon of food poverty and to the possible ways of facing it but also to the possible role of designers in this kind of contexts. Thus, the authors discuss the limits of Alimenta and the potential scalability of the designed interventions from a ‘design for policy’ perspective.*

## **1 INTRODUCTION: A DESIGN-LED ACTION TACKLING FOOD POVERTY OF CITIZENS EXPERIENCING HOMELESSNESS IN TURIN**

This article deals with the phenomenon of *food poverty* among people experiencing homelessness in a mature economic context (Dowler 1998), namely the city of Turin (Italy).

*Food poverty* is meant as the inability to consume an adequate quantity and quality of food in socially acceptable ways, because of several economic, social and personal causes, including the lack of food-related knowledge, skills or equipment (Dowler and O’Connor 2012; Coe 2013; O’Connor et al. 2016). As widely discussed in the relevant literature, *food poverty* represents a major daily issue for homeless people and affects their life and well-being in the both *material* and *immaterial* spheres (Strasser et al. 1991).

The *material* sphere of *food poverty* relates to the extent to which accessibility, continuity, variety, safety and security of food are compromised: hence, the nutritional and physical health aspects. The *immaterial* sphere, on the other hand, resides in the emotional, relational and autonomy aspects, linked to the way people experience the act of eating: the situations and places of consumption, the conviviality, the possibility of choosing when, what and how to eat, the knowledge and skills for buying and preparing food. This level also covers the psychological and well-being impacts of the above-mentioned *material* issues. On one side, therefore, the *material* sphere concerns the availability and characteristics of food and their effects on the physical level; on the other, the *immaterial* one has to do with self-determination in the act of eating and the quality of interpersonal relationships characterizing this act.

In the case of people experiencing homelessness, *food poverty* is exacerbated by the precariousness of homelessness (Consoli and Meo 2020): from the economic-social point of view, it is negatively affected by housing instability; from the relational point of view, it is worsened by the loss of friendship and family networks and by the frequent relational difficulties. Although the way in which homelessness-related *food poverty* manifests itself and affects the above-mentioned aspects according to recurring patterns (Lee and Grief 2008), for the purposes of this discussion it is useful to highlight the specific characteristics of the Turinese context – in which the project discussed here operates – and how these impact on the people experiencing homelessness in the area. In particular, the users taken into account in this project correspond to a – partial but substantial – slice of the Turinese homeless population: the

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

article refers precisely to those who attend dedicated public services, rather than people living on the streets.<sup>1</sup> The project team's knowledge of and relationship with such system of services was crucial for the birth and development of Alimenta, as they helped to consciously operate and implement targeted interventions, responding to contextual needs.

People experiencing homelessness in Turin mainly face a problem of access to food. Although this issue represents a concern for the entire network of the services for these citizens, it appears to receive little attention on the public policy agenda (Porcellana et al. 2020). Despite the municipality formally promoting the right to food for everyone (Città di Torino 2021), the issue of access to food for these marginalized citizens seems to be missing from the planning of the city public measures (Città di Torino 2019). As it will be discussed more extensively in the following section, the city responds to this problem in a way that is not only insufficient, but also ineffective, i.e. through several fragmented interventions from the public and private sectors (Bottiglieri et al. 2017), thus neglecting the multidimensional nature of food poverty.

Building on such a scenario, the article discusses the project named 'Alimenta', a design-led system action aiming to address *food poverty* for the homeless people in Turin. The project is a case of systemic and multidimensional intervention designed to tackle the complexity of such a social-economic phenomenon. Alimenta arose in 2014 from an action-research carried out by design and anthropology academics (Campagnaro and Porcellana 2015) for the purpose of supporting initiatives ensuring daily access to food in city public shelters, where people experiencing homelessness are hosted.<sup>2</sup>

As mentioned above, the project focuses on a specific segment – albeit large – of the homeless population, since it resulted from a broader action-research project called 'Living in the Dorm' (Campagnaro and Porcellana 2013; Porcellana and Campagnaro 2019). This was a design-anthropology-led reflection on the welfare system and social inclusion processes supporting homeless citizens.

According to its multidimensional approach, Alimenta faces *food poverty* by pursuing three main objectives – providing three different levels of intervention – which will be discussed in the following paragraphs (see Section 3).

First, it promotes *food support* for the city shelters receiving homeless people through economic support (Level 1). Thus, it provides the local organizations managing the shelters with a dedicated annual budget that can be flexibly used to purchase food and cooking equipment for meeting the specific food needs of each facility.

Second, it supports the food autonomy of people experiencing homelessness through *capability building* initiatives – mainly participatory workshops – aimed at recovering or acquiring competences related to food education, home economics, practical and organizational activities for food processing (Level 2).

Third, as *food poverty* is ever-evolving, Alimenta aims to continuously research it via dedicated design-led initiatives, suggesting improvements on the actions carried out within the other levels of the project and new possible ways to counteract the phenomenon at different levels (Level 3).

To this end, the project provides new findings and new possible actions – related to *food support* (Level 1) and *capability building* (Level 2) – all leveraging the involvement of different local stakeholders.

Through these three levels, Alimenta provides a response to the health and social needs disregarded by the weaknesses of the interventions undertaken

1. Intentionally leaving aside the experience of those living on the streets, Alimenta has focused on the context that was familiar to the project team, thanks to the action-research 'Living in the Dorm'. In the Italian context, shelters represent the very first 'step' of the so-called 'staircase approach'. It

[I]s a model wherein a homeless person is accompanied towards the recovery of his autonomy through a progressive passage, guided by a professional operator and with an educational approach, through a system of services that gradually go from first reception to reintegration in a house and a job, as the person is considered again 'ready' to bear the related existential situations.

(Pezzana quoted in Fio.PSD 2015: 15)

The 'staircase approach' model is a service system accompanying a person from a state of absolute marginality to a progressive acquisition or re-acquisition of social skills and capabilities useful to achieving housing autonomy.

2. City-owned facilities whose management is entrusted to third sector organizations, shelters provide first reception for people in a state of homelessness, offering the following services: beds, showers, luggage storage, internet connection and common socialization areas. Today in Turin there are thirteen municipal shelters, for men and women. Alimenta started when the facilities were open twelve hours a day: nowadays, in the

post-pandemic era, they are open 24 hours a day, making the food access issue discussed in this article even more relevant.

by the Turin system of services for citizens experiencing homelessness. This article presents the outputs produced by the project and the outcomes it has generated, at both *material* and *immaterial* levels. It also aims to highlight how the project has affected the local food access system for the individuals concerned as well as for the services dedicated to them.

In the discussion, emphasis is given to the role of design researchers in fostering *participatory* (concerning the active engagement of the stakeholders) and *participant* (relating to the stance of designers) approaches adopted for the design, the implementation and the ongoing monitoring of the intervention. Thus, the resulting co-design and co-production process with the city stakeholders – namely homeless people, public administration and private social organizations – is described. Moreover, the article discusses how the systemic approach has been crucial in designing and guiding the project and how the outcomes generated are likewise systemic. It illustrates the main findings from this experience, discussing not only how they provide a deep understanding of *food poverty* but also how they suggest a possible way to tackle its multidimensional nature and the relevance of a systemic response to meet this goal. The discussion also includes a reflection on the role and contributions of designers in enabling systemic actions to face complex and multidimensional phenomena. A final remark concerns the scalability of Alimenta, with regard to the possible scenarios of policy-making.

## 2 THE CONTEXT AND BACKGROUND OF ALIMENTA

In order to present how Alimenta has taken place within the pre-existing response to *food poverty* of people experiencing homelessness in Turin, it is worth giving an overview of the context where the project arose. More precisely, the present section illustrates how the common features and implications of *food poverty* for such individuals are extremely intertwined with the factors specifically characterizing the territory under investigation.

### 2.1 The research context

As previously said, Alimenta originated from ‘Living in the Dorm’ (Campagnaro and Porcellana 2013; Porcellana and Campagnaro 2019), a participatory action-research carried out from 2009 to 2018 by a *multidisciplinary* research group involving the Department of Architecture and Design of the Politecnico di Torino and the Department of Philosophy and Educational Sciences of the Università degli Studi di Torino (Campagnaro and Porcellana 2018; Campagnaro and Di Prima 2018; Campagnaro et al. 2017). This research focused on the analysis and experimentation of new models of social inclusion and the fight against the severe adult marginalization of the homeless people hosted in the city’s public shelters. The main objective was to improve the living conditions of the shelter guests by intervening on issues strictly related to the places and the everyday life of the individuals sheltered: the quality of the spaces, health and the possibility to develop and test personal skills and autonomy.

The research was carried out adopting a participatory approach: the research team was constantly engaged in field activities, connecting with citizens experiencing homelessness and the actors of the shelter system (educators, operators and city social services). The direct contact with the reality and the continuous exchange with the actors involved allowed the researchers to detect needs and criticalities in the investigated context, which were related to

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

the living dimension and went beyond it. Analysing this context and listening to its protagonists, the issue of food emerged as a critical element within the public shelters, both from the point of view of the people received and from that of the operators and educators working in those facilities. Faced not only with the emerging difficulties of people experiencing homelessness in accessing healthy and decent meals on a daily basis, continuously and in emotionally and socially appropriate environments, but also with the difficulties for frontline workers<sup>3</sup> to address these critical issues, the research team identified *food poverty* as a relevant topic of inquiry, needing further investigation.

3. By 'frontline workers' we mean all employees with social training and working inside the shelters, in direct contact with homeless people.

## **2.2 Food poverty of people experiencing homelessness: Global and Turinese scenarios**

*Food poverty* is meant as the insufficient economic access and the inability to consume an adequate quantity and quality of food in socially acceptable ways, resulting from several causes including the lack of food-related knowledge, skills or equipment (Dowler and O'Connor 2012; Coe 2013; O'Connor et al. 2016). According to O'Connor et al. (2016), the following four components can be identified as contributing to the extent of the phenomenon: economic access, adequate quantity and quality, social dimension and duration. Economic access determines an individual's ability to obtain adequate quantity and quality of food for a nutritious diet. The economic constraints experienced by homeless people limit their ability to purchase the food they need for their livelihood and undermine the second component, adequate quantity and quality. Low income, coupled with poor education (Darmon and Drewnowski 2008), restrains nutritionally inadequate food choices (Dowler and O'Connor 2012), with negative consequences for physical health. *Food poverty*, however, extends beyond nutrition and the need for nourishment, affecting also the emotional, social and cultural aspects of individuals. Finally, the temporal dimension with which the phenomenon manifests should not be ignored: the condition of *food poverty*, in fact, can be transitory or chronic (Sosenko et al. 2013). When prolonged over time, it has a greater influence on the individual's psycho-physical health risks. The four components described thus relate as much to the *material* sphere (economic access, quantity and quality) as to the *immaterial* sphere (social dimension, duration).

In the field research conducted with 'Living in the Dorm', the researchers observed all the above-mentioned elements, getting confirmation that *food poverty* represents one of the key issues in daily life for people experiencing homelessness and has implications in terms of well-being on both *material* and *immaterial* aspects (Strasser et al. 1991) (Figure 1).

Indeed, in the *material* sphere, the lack of economic and technical resources, such as an income and a home, undermines the capacity to have a nutritionally adequate diet, in terms of both quantity and quality (Crawford et al. 2014). Materially failing to have a healthy diet, homeless individuals live in a state of persistent food insecurity that also endangers their health. Such a condition contributes to the causes of deleterious health problems – diabetes, obesity and gastrointestinal disorders are widespread among these people – generating or complicating already fragile conditions (Fitzpatrick and Willis 2021).

In the *immaterial* sphere, the social and emotional aspects related to the social process linked to food consumption are compromised for people experiencing homelessness. As they stop providing independently for their own

# SCENARIO OF PROBLEMS

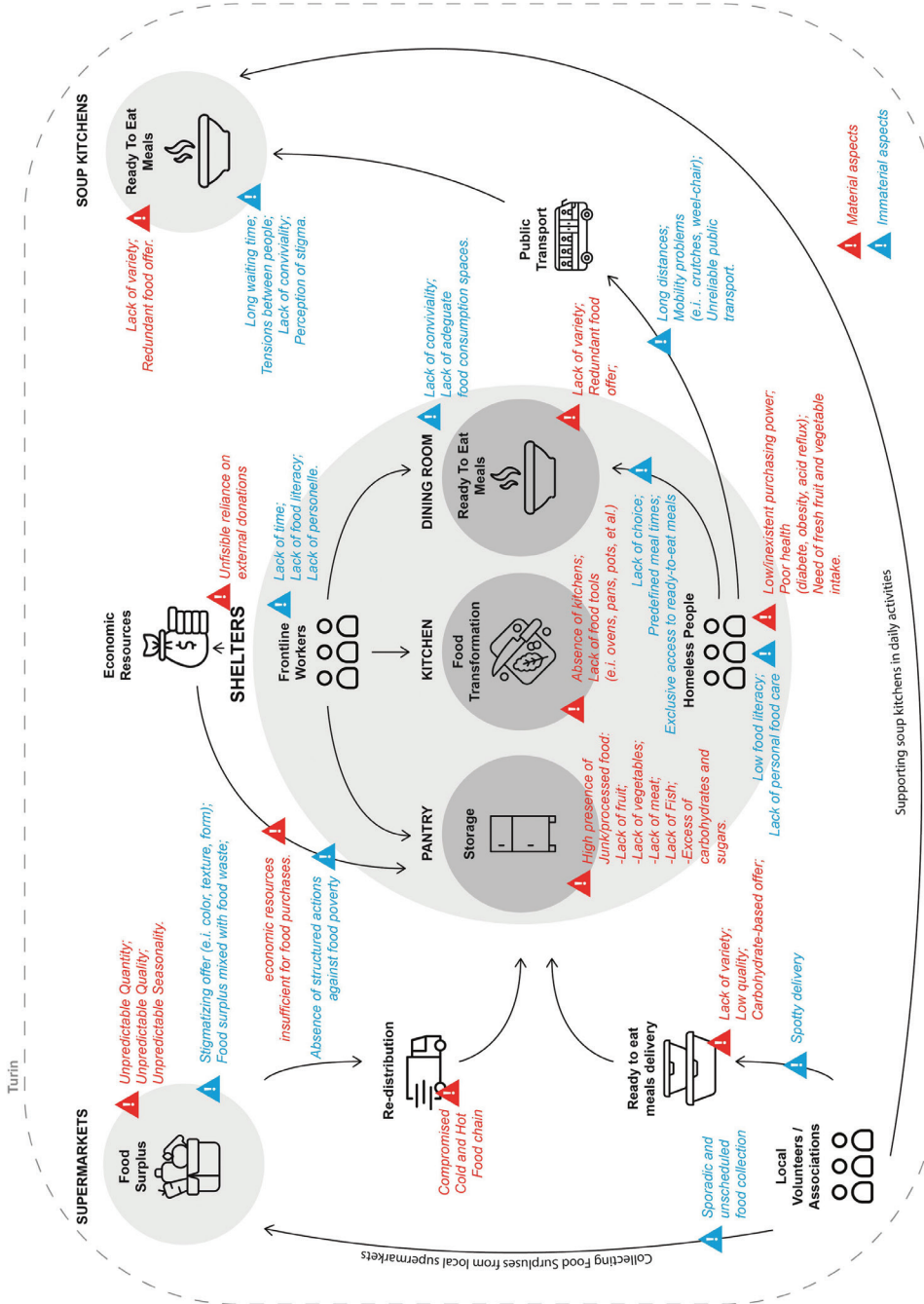


Figure 1: Scenario of problems: material and immaterial aspects detected in the context of homelessness-related food poverty in Turin (image by the authors).

food needs and consume poor meals that they cannot freely choose, they can neither express their own identity, nor exercise choice, and they progressively lose their ability to manage and process raw materials as well. While weakened or even completely lost in shelter life, these aspects conversely play a crucial role when people eventually access housing and regain autonomy. Such autonomy is the broad goal which the services for the homeless people aim for. Nevertheless, these same services fail in ensuring a continuous exercise of autonomy in daily life aspects, among which food is a crucial one. Staying for a long time in shelters (about two years on average), people risk losing food-related power of choice and skills, sometimes permanently. In addition, shelter life provides a top-down, mediated and institutionalized access to food and denies the conviviality of shared food, the relationship with others and the creation of the interpersonal bonds that are traditionally linked to the ritual of meals and cooking (Seppilli 1994).

The researchers of the 'Living in the Dorm' action-research verified at first hand all the critical issues affecting people in a state of homelessness and tried to understand the political and social scenario characterizing the phenomenon in the Turinese context.

In Turin, public practices, projects and policies recognize as mandatory the right to food for citizens (Bottiglieri 2017) and testify the collective commitment to address *food poverty* (Bottiglieri et al. 2017; Guazzo et al. 2018; Pettenati et al. 2019; Fassio and Minotti 2019; Mari and Vasile 2020). Despite issues concerning *food poverty* and the right to food have been extensively debated by both politicians and civil society, the specific homelessness-related *food poverty* has certainly been disregarded. There are no projects nor dedicated policies and, most of all, a systemic framework to tackle the phenomenon is missing.

In the city of interest,

nutrition is a crucial problem for the entire network of public services for the homeless. [...] Interventions aimed at the homeless in Turin seem not to recognize the complexity of the issue, reducing the beneficiaries' food needs to a purely biological issue.

(Porcellana et al. 2020: 95–100)

Thus Porcellana et al. frame how the city's public services consider and address the problem of *food poverty* for the local population concerned. The described 'biological' sense underlines an incomplete way to tackle *food poverty*, as it reveals a limited comprehension of the phenomenon, seen as a physical and quantitative issue, hence disregarding the complex dynamics entangled in it.

The current response of the city system is not sufficient: if, for lunch, homeless people can rely on a network of public canteens (Pettenati et al. 2019), the moment of dinner is more critical, especially for those hosted in public shelters. Regulations and organizational constraints do not allow equipped kitchens inside the shelters and – due to their performance obligations, formally stipulated with the public administration – the cooperatives managing them do not provide specific services related to food nor dedicated resources. Nevertheless, 'the expectation of the administration is that the cooperatives respond to the problem' (Porcellana et al. 2020: 102). Indeed, the frontline workers of the shelters have been used to adopting improvised solutions to provide an evening meal and a breakfast for the guests, but not always they have been able to guarantee them, resulting in a condition of malaise

and food insecurity. Moreover, the presence of local organizations distributing food surplus to people experiencing homelessness has contributed to alleviating the urgency of food scarcity, involuntarily leading policy-makers to postpone wider and intensive interventions.

Talking with homeless individuals and with frontline workers of public shelters through field research activities – such as participant observation, shadowing and semi-structured interviews – the researchers could see first hand how the context peculiarities affect the relation to food of these citizens, confirming all the criticalities in the *material* and *immaterial* spheres mentioned above. These implications underline how the uncertainty of access to food and the impossibility to choose what to eat compromise people's mood, health and social relations, also exacerbating the state of deprivation and exclusion they suffer (Caritas Roma 2018). Social workers, on the other hand, feel the brunt of such conditions and report that such food access conditions cause a complex climate of psychological discomfort. Indeed, the lack of a healthy and decent supper negatively affects people's peace of mind, arousing feelings of uncertainty, anxiety and frustration that harm the interpersonal relationships and the atmosphere inside the housing facilities, also accentuating social stigma and denial of dignity.

In order to gain a deeper and more informed understanding of the problem, in 2014 the research team initiated a participatory cooking workshop carried out twice a week in a city shelter that would become the starting point for the birth of Alimenta. The activity consisted of cooking and eating lunches with the guests of this shelter and made it possible to better detect the critical issues related to food access conditions experienced on a daily basis by individuals living in shelters. Thanks to this workshop, the need for respecting and valuing the users emerged clearly. Working and cooking with people experiencing homelessness, the question arose that inside the shelters, food was not always available and, when present, it was systematically lacking in quantity and mainly in quality. It also emerged that the individuality and the personal life experience were being lost when consuming those few – but valuable – food surpluses, periodically offered by volunteers and neighbourhood stores.

The participant observation activity carried out during the cooking workshop revealed how prolonged homelessness affected individuals' knowledge of food issues. In particular, the unavailability of money to buy food and tools to process it proved to undermine people's food literacy (Vingen and Gallegos 2014). Food literacy is 'the set of interrelated knowledge, skills and behaviours required to plan, manage, select, prepare, and consume food to meet needs and determine food intake' (Vingen and Gallegos 2014: 54). Such a lost or lacking knowledge negatively affects the already compromised health status of people experiencing homelessness (Homeless Link 2022; Tse and Tarasuk 2008). It has been observed that homelessness erodes the skills needed to plan food purchases and consumption according to one's dietary needs, to properly manage economic resources, to select and judge the quality of food (e.g. nutritional ratios, price-quality ratio), to prepare, process and use food to make meals, and to consume and food for a balanced diet.

Despite being binding, the presented issues are not discussed nor addressed by any project in Turin. They are part of the problems experienced daily by the actors who are in contact with people living homelessness and are met in a spot manner, autonomously and without a dialogue between different stakeholders.

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

Based on the findings from field research and reference literature, the research team identified *food poverty* as a possible issue for a systemic design intervention aimed at promoting well-being and social inclusion for homeless people, in terms of the right to food. An intervention addressing the different issues identified, both on food – in the *material* sphere – and on skills – in the *immaterial* one – for strengthening food literacy and thus personal food autonomy, seemed fundamental. The multidimensionality of *food poverty* and the system-level criticalities detected in the Turinese context induced the working group to think that the necessary path should follow a likewise multidimensional and systemic intervention. In order to act on the city scenario with a systemic approach, it seemed essential to involve actors who already had or could have a role in alleviating the condition of *food poverty* of the homeless. Alimenta, in fact, relies on actions co-designed and co-created by actively involving city authorities, the private social sector, the world of research and the city homeless population.

### 3 THE DESIGN OF ALIMENTA

As highlighted in the previous paragraph, the researchers settled to tackle the phenomenon of *food poverty* in a systemic way. The systemic approach is here intended as a design process (Bistagnino 2009) in which designers consider all the components of a process and the context in which such a process is embedded (actors, activities and resources), design relationships between them aiming at producing a system in which all parts are valued and contribute to the macro-objective of well-being for individuals and the community.

Therefore, in order to design an intervention countering *food poverty*, the project team first identified the critical nodes of the context, as reference issues on which to act strategically. Among the multiple contributory causes of the phenomenon, the economic resources available to the organizations managing public shelters emerged as central. These resources, indeed, were insufficient to continuously guarantee a meal for guests, especially a meal balanced in quantity, quality (e.g. variety, seasonality) and nutrition (e.g. fresh produce such as fruit and vegetables). The researchers observed that the shelters did not provide any structured action to address this issue (e.g. distribution of meals, self-preparation of dinners and equipped kitchen areas). The only cases when meals were provided strictly depended on fortuitous factors, such as the spontaneous initiative of frontline workers having time and sensitivity to the problem, and the availability of food and tools for food processing inside the facilities. In particular, these were actions of ‘passive’ meal supply, not contemplating the protagonism or autonomy of people in food acts, and thus increasing their condition of dependence on other subjects and external help.

Finally, it emerged that the local actors involved in combating homelessness were uncoordinated and shared spotty, discontinuous relationships, both in general and in relation to the issue of food access. Overall, the project team surfaced a fragmented and inefficient system. Therefore, in involving those actors in a systemic intervention, they tried to find the most suitable form of stakeholder engagement to enhance the objectives, resources and skills of each entity.

Thanks to the previous collaboration within ‘Living in the Dorm’, three social cooperatives managing shelters and the city’s social services department known at that time were involved in the design process. The researchers then set a co-design process (Sanders and Stappers 2008) aimed at tackling the

4. The Milan-based Fondazione Progetto Arca has been the main funding actor of Alimenta since its inception.

matter of food access inside the shelters. The researchers adopted a participatory approach (Sangiorgi and Clark 2004) to actively involve the actors and a participant stance (Marzano 2006) to directly observe and act on the field with people. These two approaches have proved fundamental in dealing with the complexity of the *wicked problem of food poverty*, in defining common objectives and expected results, as well as in monitoring the activities in the shelters.

From being *explorers* (Germak and De Giorgi 2008) in the preliminary research and framing phase, the designer then played the role of facilitators and mediators between actors, guiding the collective creativity (Sanders and Stappers 2008). They strategically connected practical and theoretical knowledge, as well as favoured *multidisciplinary* interaction between different actors. Therefore, the co-design process started with creating a series of working tables to define the objectives of the project and its actions, involving researchers, frontline workers from the three cooperatives managing the shelters and representatives of the area for adults in difficulty (SAD) within the city's social services. Together with these stakeholders, the project team addressed two main points in the design of the intervention.

The primary concern was the economic sustainability of the project. This need was met by the involvement of a project partner – Fondazione Progetto ARCA Onlus<sup>4</sup> – to support the measure in its economic side, financing the activities with an annual funding plan. Second, it was necessary to define on which levels to build the intervention, in order to achieve a multidimensional response. Co-designing with the actors involved, three levels of intervention were defined (Figure 2).

The first level promotes *food support* for the city shelters that receive homeless people (Level 1). Thus, it provides the three local cooperatives with a dedicated annual budget that can be spent to purchase food and cooking equipment, according to specific needs and characteristics of each shelter. As a *food support* action, this level addresses the *material* sphere of *food poverty*, allowing a sufficient and prompt food supply meeting the needs. It also empowers the managers of the shelters to choose the most suitable resources to their abilities to manage them and to meet specific nutritional needs, also with regard to food variety. Then, this level overall tackles the economic, quantitative and qualitative aspects of the food access denied – the *material* sphere of *food poverty* – moreover, it works on the duration aspect of the issue – related to the *immaterial* sphere – as it ensures a continuous availability of meals.

The second level of the Alimenta design promotes *capability building* paths for the people hosted in the shelters of the project, through the creation of participatory workshops aimed at recovering personal autonomy, related to the dimensions of food education, home economics, as well as practical and organizational skills related to food processing (Level 2). This level acts in a perspective of food literacy, working on the acquisition of the necessary skills related to food management from a holistic perspective, from purchase to transformation, from food knowledge to aware consumption. Moreover, the collective nature of the workshops – meals are cooked and eaten all together – it addresses the relational aspect of food consumption. Hence, it comprehensively regards the social dimension underlying the *immaterial* sphere of *food poverty*.

The third level supports a continuous in-depth analysis of both *food poverty* and the project, in order to update the ways to fight the constantly changing phenomenon at different levels of complexity (Level 3). To do so, the design

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

# OBJECTIVES AND LEVELS OF ALIMENTA

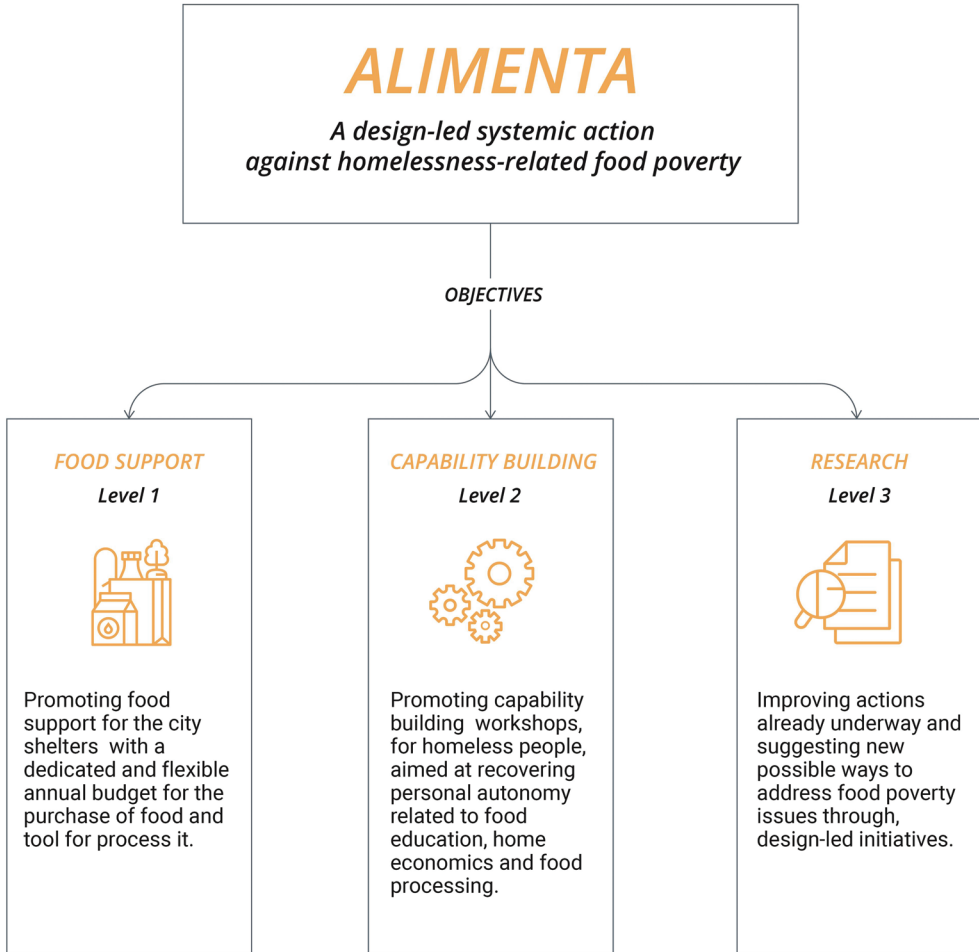


Figure 2: Objectives and levels of action within Alimenta (image by the authors).

researchers promote several design-led initiatives (Manzini 2014b) that, from a Research Through Design perspective (Koskinen et al. 2011), inquiry and explore possible responses to strengthen the other two levels of the projects as well as to detect other *food poverty* issues. This last level then concerns both *material* and *immaterial* spheres of the phenomenon.

Having defined the levels of intervention, the researchers established a monitoring plan to observe and evaluate the effects and the evolution of each level of intervention (Figure 3).

With respect to *food support* (Level 1), qualitative information has been collected directly by both the frontline workers and the members of the project team. To this end, the latter have adopted tools such as participant observation (Kawulich 2005) and shadowing (McDonald 2005) to monitor the evolution

## MONITORING ACTIVITIES

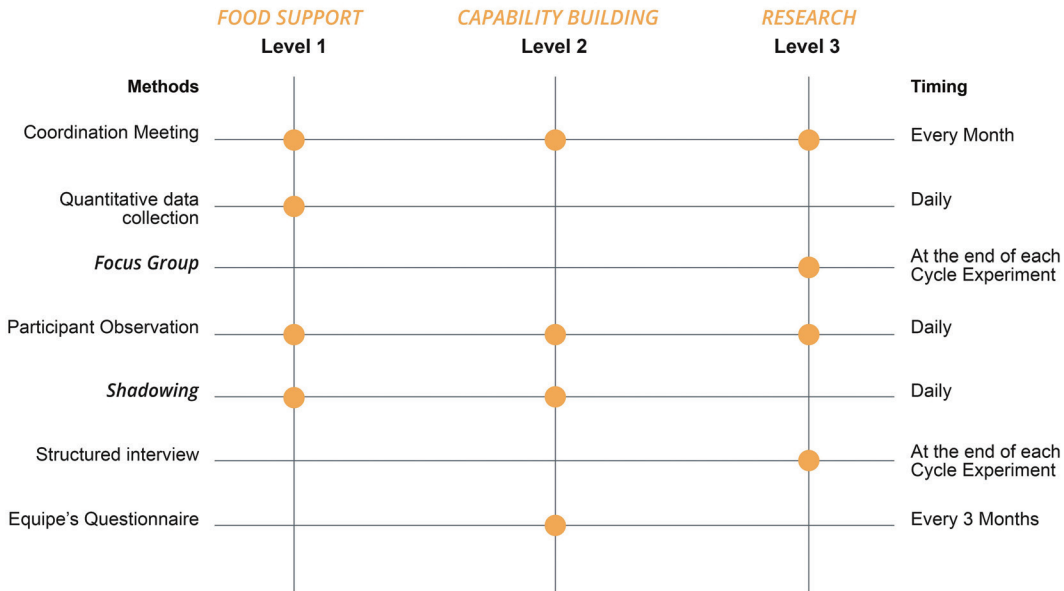


Figure 3: Monitoring activities of Alimenta: methods and timing (image by the authors).

of the activities and the participants' feelings and behaviour. The researchers have also done structured interviews (Wilson 2014) with the guests of the facilities to have a complementary source of monitoring. Personal dietary needs of the beneficiaries were investigated, and the effectiveness of the *food support* actions was assessed, with a specific focus on the perceived quality of the food available in the shelters.

Qualitative data referred to the actions of *capability building* (Level 2) have been retrieved via two tools. The first one, again, participant observation, has allowed a deep inspection of the workshops, revealing what the participants would not have been able to report during interviews. The second one is the 'Équipe's questionnaire', established by Turin social services. This questionnaire is filled in and updated every three months during a meeting attended by the research team and the frontline workers of each shelter. It is a standard and shared tool, useful to trace the state of well-being of each individual and the extent to which abilities are built or regained. Within Alimenta, this tool has been adopted to assess the skills related to cooking, food education and home economics observed in the participants of the cooking workshops.

The design research actions belonging to Level 3 have been monitored with tools such as focus groups (Chiarini Tremblay et al. 2010), semi-structured interviews and participant observation. Each initiative within this level is set out as live prototyping (IDEO 2014), tested in the real context, it starts with a first experimental cycle lasting one month. Then, the activity is evaluated by collecting insights – through participant observation and shadowing – and via focus groups or semi-structured interviews with the homeless

people involved. The information collected has allowed the designers to improve the experiments or to understand whether they were not useful. The information collected after each experimental cycle is presented in a periodic report aimed at tracing the progress of the design initiatives, keeping records of the effects generated and sharing the results obtained with the stakeholders.

## 4 THE RESULTS OF ALIMENTA

Alimenta has been envisaged as a systemic and multi-stakeholder response to *food poverty*; it is carried out through the actions described above both to meet the different needs related to the phenomenon and to simultaneously grasp the specific conditions emerging in each shelter involved.

While previously outlined from a design perspective in the previous paragraph, in this one the three levels of actions will be illustrated in their results, differentiating the outputs – intended as what has been directly and tangibly produced by the three levels – and the outcomes – intended as the qualitative consequences generated by the project on the actors involved and on the system overall. In the first part (Section 4.1), the actors involved in each level will be presented, together with the single actions derived from them and the interconnections between actors and between actions, from a systemic point of view. Attention will be given to the outputs in terms of design activities, describing how the research team crossed different design domains in designing and guiding the actions illustrated. In the second part (Section 4.2), the outcomes will be described both considering how the levels of the project responded to the *material* and *immaterial* dimensions of *food poverty*, and with a view to the overall system generated.

### 4.1 The project outputs

The first level of action within Alimenta, concerning *food support* to the organizations managing the shelters, involves three *cooperatives* adhering to Alimenta as main actors: Cooperativa Animazione Valdocco, Stranaidea Impresa Sociale Onlus and Cooperativa Frassati. Thanks to the economic resources they are given and that they can flexibly manage, these cooperatives can provide a proper and continuous food supply to prepare meals (mainly dinners but also breakfasts and snacks) inside the six shelters they manage. Moreover, by purchasing fresh food, tools and equipment for food processing, the shelter can guarantee a healthy and decent access to food and meet the needs and preferences of all guests (with particular attention to food intolerances and vegetarian or vegan diets). Thus, the cooperatives have relied also on local shops to purchase the food needed.

Together with the cooperatives, the research team co-designed the *food support* intervention at different levels of action. Precisely, starting from the greater stability and food autonomy guaranteed by the economic support of Alimenta, the actors involved intensified the actions of stakeholder engagement. According to a principle of subsidiarity and complementarity in *food support*, the cooperatives have strengthened their collaboration with various local voluntary organizations that are engaged in food aid activities. In particular, organizations such as Banco Alimentare Piemonte (the local organization of the Italian food bank network), Forum Interregionale Permanente del Volontariato Piemonte e Valle d'Aosta, Comunità di Sant'Egidio and Lions Club Torino have consolidated and structured their commitment in supporting

food access, by scheduling regular donations of quality food products (i.e. fruit, vegetables and meat) and prepared meals.

Alimenta supported the creation of two community kitchens inside two of the six shelters involved, as an annexe to the *food support* level. These kitchens are open to local organizations engaged in meal donation initiatives – normally prepared elsewhere and provided to shelters – in order to better support their activities and consolidate their collaboration with the cooperatives managing the facilities.

Autonomous supply, more solid alliances with local associations and dedicated places for food transformation all together have contributed to implement an adequate food offer for the people hosted in the shelters that did not exist before.

Thanks to this new setting, in the eight years of Alimenta, the shelters involved have been able to provide about 420,000 meals – 60,000 per year – guaranteeing a daily dinner for almost 170 citizens hosted in the shelters. These actions covered almost half of the city public dormitories – six out of thirteen in all – and have reached the 13 per cent of the homeless people in Turin, corresponding to more than the 20 per cent of the individuals in charge of the public social services.

The second intervention level of Alimenta refers to food-related *capability building* and sees as protagonists the guests of the shelters who are involved in activities of paid internship, promoted by the social recovery programme of Turin's social services. Such activities are guided and tutored by professionals in diverse crafting sectors (such as tailoring, carpentry and wall-painting) and provide people in a state of homelessness with experiences to explore, discover, acquire and strengthen hard and relational skills that may be useful in a future employment or in their personal housing autonomy (Figure 4).

Thanks to Alimenta, new workshops have been created, specifically dedicated to the food sphere. Permanent cooking workshops – held twice a week – were launched in three shelters, under the tutoring and the supervision of the designers guiding the project and the educators already working in the facilities. Together with the tutors, the participants cooperatively define a menu and cook an entire meal for themselves and for the other guests in the shelter (about twenty people). Such meals add to the ones enabled by the first level of *food support* within Alimenta. The goal of these workshops is to transfer notions of food education and home economics to the homeless people attending, as well as practical and organizational skills related to cooking. Such skills, often weakened in the condition of homelessness, prove to be crucial in people's daily life, once they regain housing stability.

The beneficiaries are not only empowered in choosing what to eat and in learning how to cook but also nudged in the cooperation to achieve the goal of preparing the meal by the end of the activity. They also gain experience with food shopping by purchasing the food raw materials required for the meal preparation, according to a predefined budget. Part of the economic funding of Alimenta, indeed, also covers the food spending – for ingredients and cooking equipment – related to these workshops.

More than 250 people hosted in the shelters and nine tutors guiding the activities have been involved in these workshops. In eight years, over 37,000 meals were prepared within the cooking workshops.

The third level of intervention promoted by Alimenta, dealing with the research activities carried out by the design team from the Department of Architecture and Design of the Politecnico di Torino, has been instrumental

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00



Figure 4: Snaps from the capability building workshops: tutors and people in a state of homelessness cooking together (photographs by the authors).

in deepening the analysis of *food poverty* and identifying new ways to deal with it. The research activities in this level are developed from a Research Through Design perspective (Zimmerman et al. 2010): by practically dealing with the topics and situations related to *food poverty*, the researchers reflect on the actions carried out within the other two levels, with the aim of identifying new challenges and viable responses to directly test in the field (Figure 5). Indeed, besides being transformative and reflexive in nature, the research initiatives rely on participatory approach, enabling a continuous identification of the needs of the homeless people involved, by giving them a voice. The practice-led approach adopted by the design researchers allows not just to find possible new interventions to tackle *food poverty* but also to test them on a micro-scale, envisaging potential replication and structuring at a greater scale or in similar contexts. The outputs produced then become prototypes of possible interventions supporting food security.

The Alimenta design team continuously relates with the cooperatives and the people in a state of homelessness by participating in the design, implementation and monitoring of all actions of the project. Indeed, these close relationships established with the stakeholders and beneficiaries have proved to be key to identify new needs and opportunities for intervention.

For the eight years of the existence of Alimenta, a variety of Research Through Design initiatives have been carried out, some ad hoc and temporary, others permanent and evolving. They are described below:



Figure 5: Snaps from the design-led initiatives. Experiments inside the public shelters (from right to left moving anti-clockwise): microwave oven workshop; activities to transform scrap bread; 'Community Pantry' micro-service; 'Transforming food surpluses workshop' (photographs by the authors).

- Six community workshops (Campagnaro and Ceraolo 2017), having engaged 90 young design students and the guests of one of the shelters involved in Alimenta to collaborate in designing new healthy and accessible food products (so far reaching 30 different concepts) by transforming food surpluses otherwise discarded due to their imperfections.
- A 'meal kit' service, active from December 2020 to July 2022, through which the designers investigated the possibility of personalizing the taste of standard food products, by providing spices, condiments and toppings that beneficiaries can select and add to the dishes according to their personal preferences. This personalization of the eating experience obviates the problem of the excessive serial nature of the gastronomic offer proposed in some dormitories and soup kitchens. The designers used the 'meal kit' simultaneously not only as a probe (Mattelmäki 2006) for detecting food preferences and behaviours but also as a possible strategy to enhance dignity and freedom of food choice in a context of food standardization. In twenty months, about 2500 kits were produced, serving a meal to 15–30 individuals at each session.
- A pilot cycle of four workshops to teach people living homelessness how to process their own food by using a microwave oven, the only food processing tool that can be used by the guests of the shelters, according to the safety regulations. The researchers designed this experimentation

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

dealing with the concept of enabling technology (Fabri and Newbutt 2022) to convey tips and introduce accessible tools for the self-preparation of any type of dish. Five people were involved in this pilot trial and they proved to benefit from that experience by implementing the learnings in their daily food autonomy.

- A service of 'Community Pantry', ongoing since March 2021 inside one of the shelters of the project where hosts can choose and pick up food – ranging from fresh food to processed and canned foods, to raw food materials – that they consider useful to meet their food needs. Since the inception of the service, 24 individuals have benefited from it and over 3000 kg of food have been distributed – 1500 kg of them prevented from disposal as coming from fresh and raw food surpluses recovered from a supermarket.
- A workshop for transforming food surpluses from bakeries. Specifically, over the course of a year (50 sessions), 25 homeless people and four designers transformed scrap bread into new dishes to be eaten or into 'food-components' that can be used included in other preparations. The participants converted 300 kg of 'waste' products into as many kilos of new edible resources.
- A cycle of community dinners during which, on Sundays, an average of 30 people hosted in the public dormitories dined together with local volunteers. This eating experience was designed as an opportunity for homeless people and volunteers to recognize one another as citizens of the same city, despite social distances, and to overcome stereotypes.

Overall, the three levels through which Alimenta has been carried out have allowed it to produce all the outputs presented above (Figure 6), involving sixteen local stakeholders and converting about €280,000 in eight years into social and environmental value.

The actions described differently address *food poverty* through a multidimensional approach that reflects into the different levels of complexity which the design researchers have been working on (Figure 7).

To address the *material* and *immaterial* aspects of *food poverty*, the research team moved through different design domains (Jones and van Patter 2009). The design initiatives related to the creation of micro-services and participatory workshops dedicated to the homeless people (Level 3) belong to the design domains 1.0 and 2.0. Other interventions concern organizational transformation – such as the definition of the network of *food support* among the actors involved – pertaining to Level 1 – thus belonging to the design domain 3.0. Again, the researchers designed design 4.0 interventions, involving social transformation – such as the definition of *capability building* activities aimed at improving the food autonomy of participants (Level 2). The actions were implemented spanning the different sub-categories of Food Design (Zampollo 2016). Specifically, some of them refer to design with food, design for food, food space design and eating design, such as intensive community workshops, permanent cooking workshops, community dinners, experimentations. Others, more complex, lie in the categories of food system design and food service design: the *food support* network, *capability building* workshops, meal kits and community pantry services.

The possibility of ranging within the four design domains and within different Food Design sub-disciplines was enabled by the contribution of design researchers with different training backgrounds, such as product

# THE NEW FOOD SYSTEM GENERATED

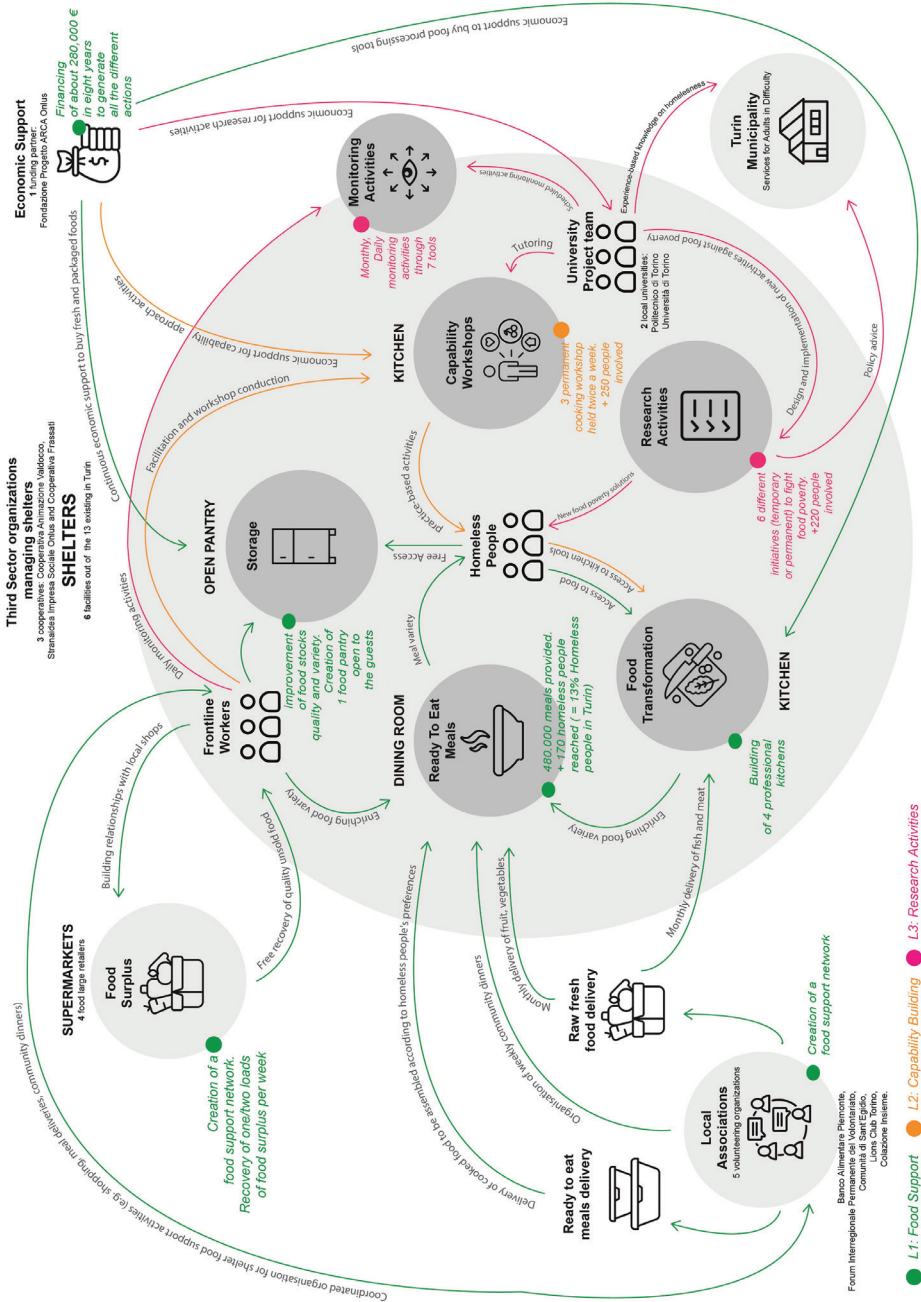


Figure 6: The new food system generated by Alimenta: stakeholders involved, actions carried out and outputs realized on the three project levels (image by the authors).

# INTERSECTIONS OF ALIMENTA'S ACTIONS

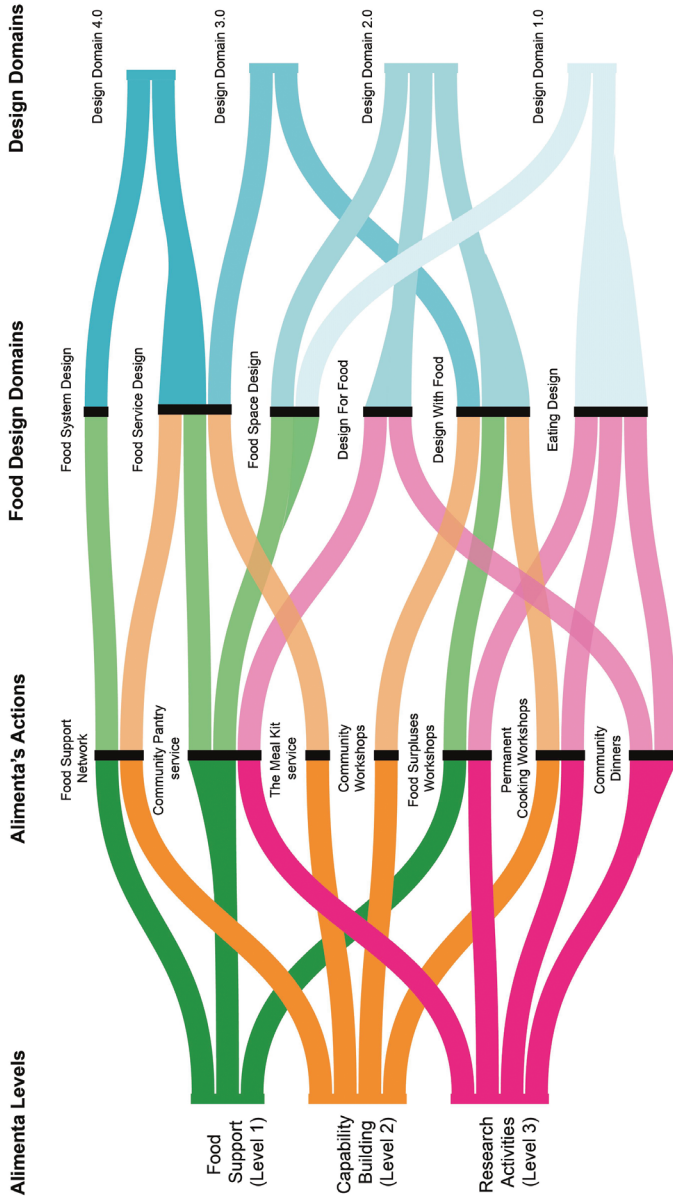


Figure 7: Sankey diagram showing the intersection of Alimenta's actions with different food design domains and different design domains (image by the authors).

design, visual communication design, systemic design, interior design, design anthropology, food design and social design.

#### 4.2 The project outcomes

The results achieved thanks to Alimenta do not exclusively refer to the number of meals and beneficiaries reached but also regard the outcomes generated, presented below (Figure 8). The monitoring by the research team has made it possible to detect a series of positive effects that can be traced back to the *material* and *immaterial* aspects of *food poverty* previously outlined (see Section 2).

At the *material* level, with regard to *food support* (Level 1), the first outcome of Alimenta resides in the strategy – systematic, steady and continuous – that the organizations involved now adopt to tackle the issue of food supply and access. The regular access to healthy food enabled an increase in food security for the beneficiaries of the project. Before Alimenta, it was not certain that an evening meal was guaranteed in the dormitories. By guaranteeing flexible monthly economic resources, Alimenta ensured the constant presence of food and tools to process it inside the shelters, meeting the material purchase needs of the three organizations involved.

Moreover, through the voices of beneficiaries and operators, a significant increase in the perceived quality of food consumed has been revealed. This was assessed not only with respect to the intrinsic characteristics of food – better taste and aesthetics – but also with respect to the variety of products accessible. Food surplus collection and reuse activities and ad hoc purchases have increasingly included fresh produce – primarily fruit and vegetables – in the diet of the people living in the dormitories, thus integrating the deficiencies we detected before the beginning of Alimenta.

At an *immaterial* level, we observe different outcomes, at both individual and collective spheres, not only on the beneficiaries – the homeless people involved – but also on the social workers of the shelters.

With respect to the individual sphere, such a food guarantee has produced significant impacts on the well-being of people experiencing homelessness. From a physical point of view, a greater balance in terms of eating patterns has emerged; from a psychological one, a greater serenity is shown thanks to the certitude of a daily meal. Moreover, the meals quality revealed a care which has positively impacted on individuals in terms of perceived dignity. Thanks to the *capability building* workshops (Level 2), many homeless people have reported a widespread recovery of skills in the management of domestic food dynamics – lost or eroded during homelessness – and an increased freedom of choice on what to eat, how to eat it and how to prepare it. Overall, the interventions promoted through Alimenta have positively impacted on the individual dimension in terms of recognition of the person and of his or her needs and abilities.

With regard to collectivity, the monitoring has revealed an improved way the guests of the dormitories live together, as new positive relational dynamics are generated by the introduction of a continuous supply of healthy, quality food and its daily certitude. The stories from the people involved and the social workers have underlined how the consumption of a warm, pleasant, available and certain meal, every evening, has had a positive influence on the mood inside the shelter. Indeed, tensions and clashes, which had previously been recurrent, have been replaced by a more relaxed atmosphere, hence

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

giving mealtimes a more domestic meaning. This collective well-being has had a positive effect also on the work of the frontline workers in the facilities: indeed, thanks to this food security, they have to deal with fewer unexpected conflicting situations during mealtimes and can count on a more collaborative relationship with the people they take care of.

Moreover, outcomes cross-cutting the *material* and the *immaterial* emerge, as they touch components of *food poverty* that belong to both spheres.

At a systemic level, a great outcome was generated by the new conditions of food access and the quality of meals offered has improved. In this respect, an unprecedented recognition of the food issue as such – and of its implications – was detected. *Food poverty* and food access have become part of the social workers' agenda, no longer an exceptional concern whose solutions are left to occasional and spontaneous actions. This outcome is crucial in enabling that *material* aspects of *food poverty*, as economic access, quantity and quality, and an *immaterial* one, duration, are addressed.

Another key outcome was observed in the catalysing effect of food supply actions allowed by Alimenta and the constitution of a stakeholder network that did not exist before. Altogether, the interactions between the actors – described above – triggered a multi-level network. Each of these relations meets a purpose, and together they provide a cohesive and flexible system to address *food poverty* at a local scale. Playing different and complementary roles, the stakeholders share their own resources and work synergistically in the same direction.

Such a network, together with the optimization of the economic resources available, has enabled new initiatives of collection, processing and redistribution of food with a concern for environmental sustainability and access to fresh and quality food. Expanding from year to year, the network has involved both institutions and citizens from the territory, who, working together, have contributed to increase the pervasiveness and effectiveness of initiatives in favour of food security inside the shelters. In addition, thanks to all the initiatives, Alimenta has managed to reach out to new citizens (students, volunteers and professionals) and cooperatives who have been donating time, food, money and know-how and have been contributing to strengthen and grow this new food system.

In this respect, Alimenta redefined the proactive role that public shelters can play in the city to restore dignity, health and quality of life of people in marginality. This matter has been largely recognized as a crucial element by the existing literature on the topic (Koh et al. 2016). Considering the research team's experience, shelters have evolved from being places housing destitute and excluded people, to places for citizenship, co-creation and experimentation. In addition, active participation and territorial animation – both for the beneficiaries and for the cooperatives – have emerged as outcomes of the project. Cooperatives, above all, have been stimulated in their capacity for initiative and have enhanced the know-how – acquired through years of work in the field – by offering creative and contextual responses to *food poverty*.

As an umbrella outcome, overcoming the twofold nature of *food poverty* – *material/immaterial* – the research team detected two impacts on the conceptions and values on which the response to *food poverty* is now based. Indeed, Alimenta has brought attention to the competences and autonomy of people – through activities related to purchasing, processing and consuming food – and enabled a new city system promoting the conception of food in terms of right rather than aid, overcoming the stigmatization experienced by homeless people, and giving them back dignity and a sense of citizenship (Porcellana et al. 2020).

# MATERIAL, IMMATERIAL & TRANSVERSAL OUTCOMES

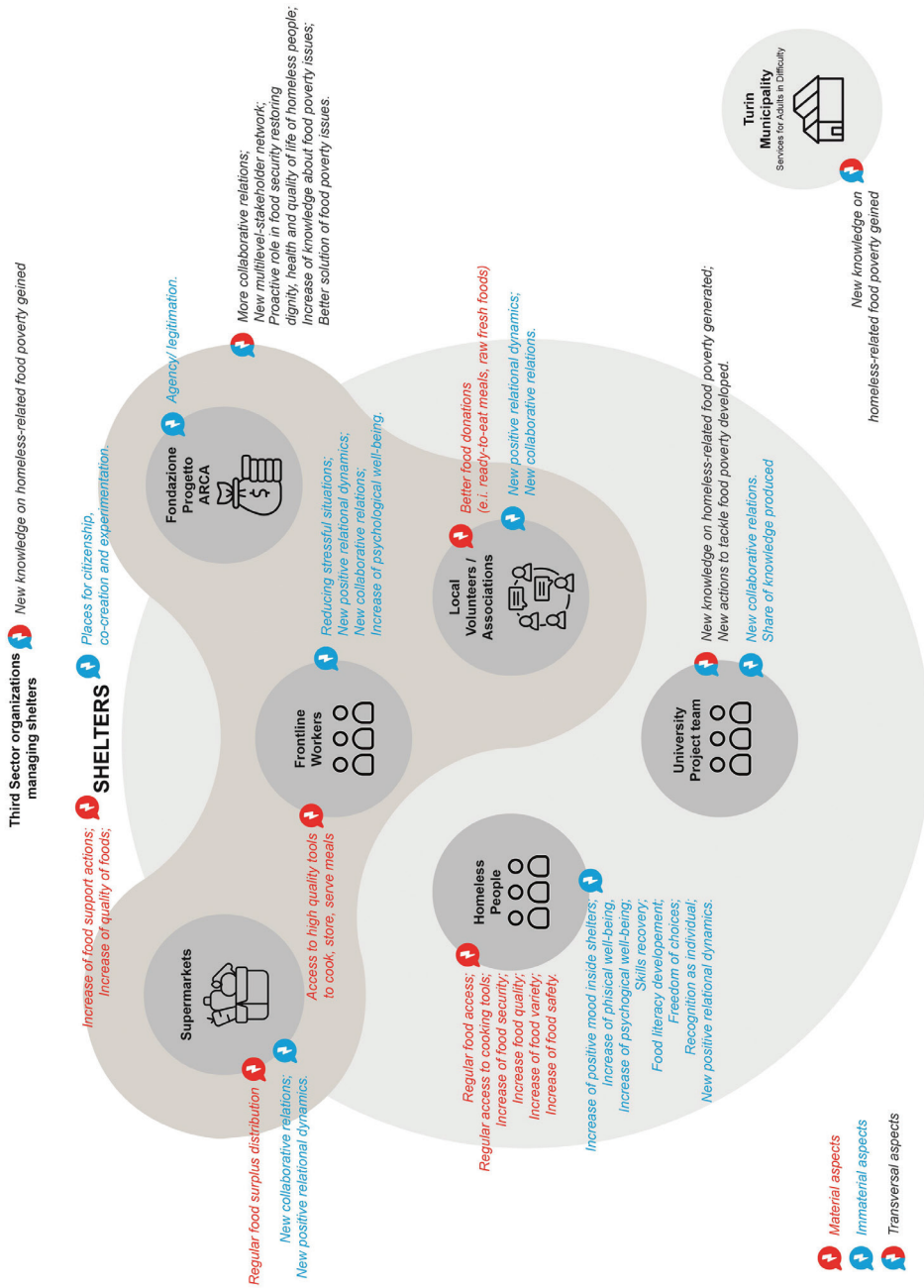


Figure 8: Material, immaterial and transversal outcomes generated thanks to Alimenta, impacting the stakeholders involved (image by the authors).

## 5 KNOWLEDGE GENERATED: KEY LEARNINGS FROM ALIMENTA

In the light of the description of Alimenta, from its design to its outputs and outcomes, in the following paragraphs the discussion will move to the results which, in hindsight, can be read in terms of knowledge generated thanks to the project, in a twofold way. On the one hand, learnings on *food poverty* among people in a state of homelessness are highlighted, underlining how Alimenta made it possible both to identify possible actions to counter the phenomenon and to continuously investigate and learn more about it, in a mutual exchange between theory and practice, feeding one another. On the other hand, the authors illustrate the learnings concerning the role that designers can play in these contexts, their skills and potential to promote and support organizational and social transformations.

### 5.1 Knowledge on homelessness-related food poverty, from theory to action and vice versa

Alimenta has generated factual knowledge related to the phenomenon of *food poverty* experienced by homeless people in marginal urban contexts. Factual knowledge is a form of knowledge based on the identification of detailed facts and information useful for a deep understanding of a problem under analysis (Cruciani 2017). In this sense, the activities carried out on the three action levels of Alimenta have been useful to investigate *food poverty*, identifying the aspects that are peculiar to this phenomenon at its local scale and whose understanding is key to envisage decisive actions.

Such a knowledge is added to that made explicit by the relevant literature, which recognize a correlation of *food poverty* and health, where the first contributes to the onset of chronic diseases, such as the development of obesity (Franklin et al. 2012), oral health problems (Muirhead et al. 2009), diabetes and hypertension (Seligman et al. 2012). More precisely, the experience within Alimenta allowed the researchers to identify the correlation between *food poverty* and a series of issues which seem to be key to who experiences homelessness, such as food literacy, food quality, space for choice, access to food and services.

The participatory workshop addresses the issue concerning the loss of food-related skills and becomes a device for knowledge transfer through a learning-by-doing approach, offering participants the opportunity to gain more and new knowledge in a practical way (Wrieden et al. 2007).

The quality of food emerged, thanks to Alimenta, as another key point in combating *food poverty*. Food donated to homeless people by associations and social organizations is often made of surplus products. They are imperfect yet edible products coming from large-scale retail, with aesthetic and organoleptic characteristics – shapes, colours, dents, broken packaging – so as to increase the sense of social stigma for recipients (Phelan et al. 1997; Norman 2005) and triggering a reaction of rejection. Indeed, literature claims that donating surplus food to people in need is socially and ethically inappropriate (Caraher and Furey 2017). Alimenta tried to use surplus food as a resource but, at the same time, to ensure that shelters could rely on other forms of access than donations of surplus food. Promoting other channels of food supply, the project has brought the attention of the stakeholders not just to the ethical matters described above but also to the necessity of overcoming the unpredictability of surplus food in terms of quantity and typology. Such care considers people experiencing homelessness as well as frontline workers managing the shelters' food supply.

Through the creation of a *food support* network and a dedicated economic support, Alimenta also has made it possible to problematize the pre-existing mechanisms of food supply by ensuring continuity and quality of food available in the shelters, so as to offer every day a greater and healthier variety of products, such as meat, fish, fruit and vegetables.

Another key learning from this experience is the centrality played by the space for choice in homelessness-related *food poverty* and the dependence of such space on several factors such as the lack of income and the lack of tools to process food inside the shelters (Power 2012). Through Alimenta, it was possible to listen to the experiences of homeless people who reported how the standardized meals of soup kitchens and food parcels from charitable organizations entailed a mechanical, monotonous and impersonal consumption, reducing the act of eating to the biological level of nourishment, 'setting aside personal tastes and desires' (Bergamaschi and Musarò 2011: 23). Promoting the exercise of choice – e.g. through the meal kit service or the community pantry one – Alimenta has improved the perceived quality of food access, as well as people's mood and dignity.

With regard to *food support*, another relevant learning from Alimenta is the empowerment of shelters as food access places. The possibility to count on shelters for access to food meets particularly the needs of people with health constraints – e.g. limited mobility – or daily life constraints – e.g. work placements or appointments with social workers – such as to prevent them from easily reaching *food support* services far from shelters. This positively impacted on the precariousness of the homelessness condition, reducing the time and efforts spent for accessing food.

The issues described and identified through Alimenta can contribute to knowledge on *food poverty*, useful to both researchers and practitioners dealing with the phenomenon. Such learnings suggest crucial aspects to take into consideration for improving the effectiveness of services and consequently the well-being of individuals in a strategic planning (or re-planning) of services, but also in the formulation of food policies dedicated to homeless people (Easton et al. 2022).

## **5.2 Knowledge on designers' role in promoting sustainable and equitable food systems**

The experience in Alimenta has been a learning opportunity for the design researchers involved. The generated knowledge does not only provide new information on the nature of *food poverty* and suggestions on possible ways to tackle it, but also a practical example of designers' contribution in such contexts.

From this project, the research team learnt that designers can play a crucial role in supporting positive change to tackle wicked problems such as *food poverty*, enacting a social, organizational and cultural transformation through enabling solutions (Manzini 2014a). The researchers, indeed, have carried out different design initiatives that can be framed at different levels. First of all, they have supported the understanding of all actors' needs, also bringing a new cultural perspective based on the recognition of the dignity of people living homelessness. Second, they have promoted solutions concerned with the accessibility for the beneficiaries. Third, they have triggered collaborations from different key stakeholders, enhancing their diverse resources and capabilities. Finally, they fostered a systemic and comprehensive view of *food*

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

*poverty* and of the intervention to tackle it, both connecting relevant and intertwined aspects of the phenomenon and supporting a synergic action by the local actors involved.

Such experience suggests some crucial skills and mindsets that designers are required to act in complex scenarios promoting sustainable and equitable (food) systems. They should be able to read and tackle phenomena with a systemic approach, being able to move from micro to macro and vice versa, deepening issues not only in a 'vertical' manner but also in a 'horizontal', transversal one. Moreover, it is crucial to foster active participation and enable co-design processes in which all actors can contribute with their visions and requests. In this sense, a great ability to listen to people's perceptions and detect hidden issues is key. More generally, sensitiveness and openness are relevant characteristics to understand complex, multidimensional and multi-stakeholder social problems.

Finally, Alimenta suggested how adopting a prototypical approach is useful to discover new issues and new possible responses to implement, trying to act at a micro-scale in order to gain significant information and insights on interventions that can be scaled up once validated and shared with the stakeholders.

## 6 CONCLUSIONS

The article described the case of Alimenta as a systemic action fighting *food poverty* of people experiencing homelessness in the city of Turin.

The systemic dimension of Alimenta lies in its multidimensional approach to *food poverty*. Alimenta acts on several *material* and *immaterial* aspects of the phenomenon through integrated action on three levels. First, it ensures the constant presence of food, qualitatively and quantitatively adequate, for the people hosted in the public shelters of the city through the creation of a *food support* network that fosters constant access to food (Level 1). Second, the project counteracts *food poverty* by promoting food literacy of homeless people through *capability building* workshops, where practical and theoretical tools are provided in order to support personal food autonomy (Level 2). Third, Alimenta enriches factual knowledge on *food poverty* through research initiatives aimed at better analysing the issues detected and proposing experimental interventions based on a participatory and inclusive approach (Level 3).

Through Alimenta, the actions devised have contributed to ensuring people a previously non-existing dimension of food security and stability, thus resulting in an improved individual and collective well-being for the people involved; at the same time, they have resulted in better work conditions for social workers in the dormitories, now able to rely on a stable and diverse food supply.

Alimenta's experience confirms the multidimensional nature of *food poverty* experienced by people in a state of homelessness. To be counteracted it requires an integrated, systemic intervention on different aspects, as it results from an intertwined pattern of causes relating to different issues, from nutrition to food access, knowledge, healthcare and food quality.

Eight years later, we can claim that, thanks to Alimenta, the new food system created has contributed, and still contributes, to an actual improvement in the response to the phenomenon of *food poverty* for an important group of very vulnerable citizens who are not a central part of the political agenda.

In conclusion, co-designing within Alimenta with a systemic and inclusive purpose, the actor network generated a pluralistic 'caring community' (The Care Collective 2020), which has jointly developed a resilient and scalable project.

In this respect, the major limits of the project reside in the constraint to an external funding, in the still small scale of intervention, and in the acknowledgement as a systemic action by only a part of Turinese public administration.

Thanks to Alimenta, the researchers could contribute to give an understanding and a perspective for action to tackle a real and complex socio-economic phenomenon, confirming the potential role and capabilities of designers in supporting cultural and organizational transformations at a systemic level.

To conclude, Alimenta can be considered as an open, polycentric and multi-actor model, capable of continuing its actions by opening up to other collaborations and contributions that will make it even more pervasive and effective. From a 'design for policy' perspective, intended as support, innovation and collaboration in public affairs (Fisher 2009; Bason 2014; Mortati et al. 2016), Alimenta could represent a sound infrastructure to which local policy-making processes could be engaged to design a food policy that is attentive to the most marginalized people and, above all, rooted in care, participation, skills and citizenship.

## REFERENCES

- Bason, C. (ed.) (2014), *Design for Policy*, New York: Routledge and Taylor & Francis Ltd.
- Bergamaschi, M. and Musarò, M. (2011), *Spazi di Negoziazione, Povertà urbana e consumi alimentari*, Milan: FrancoAngeli.
- Bistagnino, L. (2009), *Design Sistemico, Progettare la sostenibilità produttiva e ambientale*, Bra: Slow Food Editore.
- Bottiglieri, M. (2017), 'Il diritto al cibo in città: Senso e possibilità', *Journal of Universities and International Development Cooperation*, 1:1, pp. 388–93.
- Bottiglieri, M., Pettenati, G. and Toldo, A. (2017), *Turin Food Policy: Buone pratiche e prospettive*, Milan: Franco Angeli.
- Campagnaro, C. and Ceraolo, S. (2017), 'Fighting food waste towards a new social food chain: The Egg of Columbus workshop', *International Journal of Food Design*, 2:1, pp. 103–16.
- Campagnaro, C. and Di Prima, N. (2018), 'Empowering actions: The participatory renovation of a shelter', *Interventions/Adaptive Reuse*, 9:1, pp. 68–75.
- Campagnaro, C., Di Prima, N. and Porcellana, V. (2017), 'Quando l'antropologia incontra il design: Riflessioni a margine di una ricerca-azione a contrasto dell'homelessness', *Illuminazioni*, 42:1, pp. 229–51.
- Campagnaro, C. and Porcellana, V. (2013), 'Il bello che cura: Benessere e spazi di accoglienza notturna per persone senza dimora', *Cambio: Rivista delle trasformazioni sociali*, 3:5, pp. 35–44.
- Campagnaro, C. and Porcellana, V. (2015), 'Alimenta: Access to food action', in L. Galimberti, A. Meloni and M. Ferrara (eds), *Design for Food and Nutrition*, Milan: ADI Associazione per il Disegno Industriale, pp. 84–85.
- Campagnaro, C. and Porcellana, V. (2018), 'Dalla strada alla casa: Oggetti e spazi domestici nei percorsi di inserimento abitativo di persone senza dimora', *Lares*, 84:2, pp. 265–83.
- Caraher, M. and Furey, S. (2017), 'Is it appropriate to use surplus food to feed people in hunger? Short-term band-aid to more deep rooted problems

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

- of poverty', Food Research Collaboration Policy Brief, 26 February, <https://foodresearch.org.uk/publications/is-it-appropriate-to-use-surplus-food-to-feed-people-in-hunger/>. Accessed 24 February 2021.
- Caritas Roma (2018), 'Persone senza Dimora: Le sfide di un sistema integrato', Caritas Roma, November, [http://www.caritasroma.it/wp-content/uploads/2018/11/Persone%20Senza%20Dimora%20WEB%20DEF\\_16%20nov.pdf](http://www.caritasroma.it/wp-content/uploads/2018/11/Persone%20Senza%20Dimora%20WEB%20DEF_16%20nov.pdf). Accessed 1 March 2022.
- Chiarini Tremblay, M., Hevner, A. R. and Berndt, D. J. (2010), 'The use of focus groups in design research', in A. Havner and S. Chatterjee (eds), *Design Research in Information Systems*, New York: Springer, pp. 121–43.
- Città di Torino (2019), 'Torino 2030 sostenibile e resiliente: Piano d'azione per la Torino del Futuro', Città di Torino, November, [https://www.torinovivibile.it/wp-content/uploads/2021/03/TO2030\\_completo\\_web.pdf](https://www.torinovivibile.it/wp-content/uploads/2021/03/TO2030_completo_web.pdf). Accessed 24 January 2022.
- Città di Torino (2021), 'Statuto della Città di Torino', Città di Torino, September, [http://www.comune.torino.it/amm\\_com/statuto/statuto\\_torino.pdf](http://www.comune.torino.it/amm_com/statuto/statuto_torino.pdf). Accessed 20 January 2022.
- Coe, S. (2013), 'Feeding the family: Are food prices having an effect?', *Nutrition Bulletin*, 38:3, pp. 332–36.
- Consoli, T. and Meo, A. (2020), *Homelessness in Italia: Biografie, territori, politiche*, Milan: FrancoAngeli.
- Crawford, B., Yamazaki, R., Franke, E., Amanatidis, S., Ravulo, J., Steinbeck, K., Ritchie, J. and Torvaldsen, S. (2014), 'Sustaining dignity? Food insecurity in homeless young people in urban Australia', *Health Promotion Journal of Australia*, 25:2, pp. 71–78.
- Cruciani, M. (2017), *Il ruolo della conoscenza fattuale nella determinazione del significato: Negoziazione e contratti*, Canterano: Aracne.
- Darmon, N. and Drewnowski, A. (2008), 'Does social class predict diet quality?', *The American Journal of Clinical Nutrition*, 87:5, pp. 1107–17.
- Dowler, E. (1998), 'Food poverty and food policy', *IDS Bulletin*, 29:1, pp. 58–65.
- Dowler, E., Kneafsey, M., Lambie, A., Inman, A. and Collier, R. (2011), 'Thinking about "food security": Engaging with UK consumers', *Critical Public Health*, 21:4, pp. 403–16.
- Dowler, E. and O'Connor, D. (2012), 'Rights-based approaches to addressing food poverty and food insecurity in Ireland and UK', *Social Science & Medicine*, 74:1, pp. 44–55.
- Easton, C., Oudshoorn, A., Smith-Carrier, T., Forchuk, C. and Marshall, C. A. (2022), 'The experience of food insecurity during and following homelessness in high-income countries: A systematic review and meta-aggregation', *Health & Social Care in the Community*, 30:6, pp. e3384–405.
- Fabri, M. and Newbutt, N. (2022), 'Guest editorial: Designing enabling technologies for marginalised groups', *Journal of Enabling Technologies*, 16:3, pp. 157–58.
- Fassio, F. and Minotti, B. (2019), 'Circular economy for food policy: The case study of the RePoPP project in the city of Turin (Italy)', *Sustainability*, 11:21, pp. 60–78.
- Fio.PSD (2015), 'Linee di indirizzo per il contrasto alla grave emarginazione adulta in ITALIA', December, [http://www.crivenezia.it/volontari/media/docs/articoli/sd2015\\_graveemarginazione.pdf](http://www.crivenezia.it/volontari/media/docs/articoli/sd2015_graveemarginazione.pdf). Accessed 24 February 2022.
- Fisher, T. (2009), 'Needed: Design in the public interest', *The Chronicle of Higher Education*, 1 May, <https://www.chronicle.com/article/needed-design-in-the-public-interest/>. Accessed 1 December 2020.

- Fitzpatrick, K. M. and Willis, D. E. (2021), 'Homeless and hungry: Food insecurity in the land of plenty', *Food Security*, 13:1, pp. 3–12.
- Franklin, B., Jones, A., Love, D., Puckett, S., Mackin, J. and White-Means, S. (2012), 'Exploring mediators of food insecurity and obesity: A review of recent literature', *Journal of Community Health*, 37:1, pp. 253–64.
- Germak, C. and Giorgi C. De (2008), 'Exploring design', in C. Germak (ed.), *Uomo al centro del progetto: Design per un nuovo umanesimo (Man at the Centre of the Project: Design for a New Humanism)*, Turin: Umberto Allemandi & C, pp. 53–70.
- Guazzo, C., Quaglia, A. P. and Toldo, A. (2018), *Indagine sulle pratiche di contrasto alla povertà e allo spreco alimentare a Torino*, Turin: ESTA, <https://assesta.it/progetti/indagine-sulle-pratiche-di-contrasto-alla-poverta-e-allo-spreco-alimentare-a-torino/>. Accessed 20 February 2022.
- Homeless Link (2022), 'The unhealthy state of homelessness 2022: Findings from the homeless health needs audit', 27 October, [https://homelesslink-1b54.kxcdn.com/media/documents/Unhealthy\\_State\\_of\\_Homelessness\\_2022.pdf](https://homelesslink-1b54.kxcdn.com/media/documents/Unhealthy_State_of_Homelessness_2022.pdf). Accessed 29 December 2022.
- IDEO (2014), 'The future of prototyping is now live', IDEO, 17 March, <https://www.designkit.org/methods/live-prototyping>. Accessed 15 February 2022.
- Jones, P. H. and van Patter, G. K. (2009), *Design 1.0, 2.0, 3.0, 4.0: The Rise of Visual Sensemaking*, New York: NextDesign Leadership Institute.
- Kawulich, B. B. (2005), 'Participant observation as a data collection method', *Forum: Qualitative Social Research*, 6:2, <https://www.qualitative-research.net/index.php/fqs/article/view/466/997>. Accessed 15 March 2021.
- Koh, K. A., Bharel, M. and Henderson, D. C. (2016), 'Nutrition for homeless populations: Shelters and soup kitchens as opportunities for intervention', *Public Health Nutrition*, 19:7, pp. 1312–14.
- Koskinen, I., Zimmerman, J., Binder, T., Redstrom, J. and Wensveen, S. (2011), *Design Research Through Practice: From the Lab, Field, and Showroom*, Waltham, MA: Elsevier.
- Lee, B. A. and Greif, M. J. (2008), 'Homelessness and hunger', *Journal of Health and Social Behavior*, 49:11, pp. 3–19.
- Manzini, E. (2014a), 'Design and policies for collaborative services', in C. Bason (ed.), *Design for Policy*, New York: Routledge and Taylor & Francis Ltd, pp. 103–12.
- Manzini, E. (2014b), 'Making things happen: Social innovation and design making things happen: Social innovation and design', *Design Issues*, 30:1, pp. 57–66.
- Mari, V. and Vasile, M. (2020), 'From recipe to collective improvisation: An ethnographic vignette about food assistance in Barriera di Milano, Turin', *LoSquaderno*, 56:1, pp. 43–46.
- Marzano, M. (2006), 'Storia di un'arte empirica: un secolo di etnografia', in M. Marzano (ed.), *Etnografia e ricerca sociale*, Bari: Edizioni Laterza, pp. 3–32.
- Mattelmäki, T. (2006), *Design Probes*, Vaajakoski: Gummerus Printing.
- McDonald, S. (2005), 'Study actions in context: A qualitative shadowing method for organizational research', *Qualitative Research*, 5:4, pp. 455–73.
- Mortati, M., Villari, B., Maffei, S. and Arquilla, V. (2016), *Le politiche per il design e il design per le politiche: dal focus sulla soluzione alla centralità della valutazione*, Santarcangelo di Romagna: Maggioli.
- Muirhead, V., Quiñonez, C., Figueiredo, R. and Locker, D. (2009), 'Oral health disparities and food insecurity in working poor', *Community Dentistry and Oral Epidemiology*, 37:4, pp. 294–304.

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

- Norman, D. (2005), *Emotional Design: Why We Love (or Hate) Everyday Things*, New York: Basic Books.
- O'Connor, N., Farag, K. and Baines, R. (2016), 'What is food poverty? A conceptual framework', *British Food Journal*, 118:2, pp. 429–49.
- Pettenati, G., Tecco, N. and Toldo, A. (2019), *Atlante del Cibo di Torino Metropolitana: Rapporto 2*, Turin: Celid.
- Phelan, J., Link, B. G., Moore, R. E. and Stueve, A. (1997), 'The stigma of homelessness: The impact of the label "homeless" on attitudes toward poor persons', *Social Psychology Quarterly*, 60:4, pp. 323–37.
- Porcellana, V. and Campagnaro, C. (2019), 'Progettare insieme: Processi partecipativi a contrasto dell'homelessness tra antropologia e design', *Antropologia Pubblica*, 5:1, pp. 91–110.
- Porcellana, V., Stefani, S. and Campagnaro, C. (2020), 'A Torino non si muore di fame: Riflessioni antropologiche su cibo e povertà estrema', *Dada Rivista di Antropologia post-globale*, 1:1, pp. 91–110.
- Power, S. (2012), 'From redistribution to recognition to representation: Social injustice and the changing politics of education', *Globalisation, Societies and Education*, 10:4, pp. 473–92.
- Rittel, H. W. and Webber, M. M. (1973), 'Dilemmas in a general theory of planning', *Policy Sciences*, 4:2, pp. 155–69.
- Sanders, E. B. N. and Stappers, P. J. (2008), 'Co-creation and the new landscapes of design', *Co-Design*, 4:1, pp. 799–809.
- Sangiorgi, D. and Clark, B. (2004), 'Toward a participatory design approach to service design', in *Participatory Design Conference*, 2:1, Toronto, Canada, 27–31 July, New York: ACM Press, pp. 27–32.
- Seligman, H. K., Jacobs, E. A., Lopez, A., Tschann, J. and Fernandez, A. (2012), 'A food insecurity and glycemic control among low-income patients with type 2 diabetes', *Diabetes Care*, 35:2, pp. 233–38.
- Seppilli, T. (1994), 'Per un'antropologia dell'alimentazione: Determinazioni, funzioni e significati psicoculturali della risposta sociale ad un bisogno biologico', *La ricerca Folklorica*, 30:1, pp. 7–14.
- Sosenko, F., Livingstone, N. and Fitzpatrick, S. (2013), 'Overview of food aid provision in Scotland', *Scottish Government Social Research*, 12:1, pp. 12–14.
- Strasser, J. A., Damrosch, S. and Gaines, J. (1991), 'Nutrition and the homeless person', *Journal of Community Health Nursing*, 8:2, pp. 65–73.
- The Care Collective (2020), *The Care Manifesto: The Politics of Interdependence*, New York: Verso Books.
- Tse, C. and Tarasuk, V. (2008), 'Nutritional assessment of charitable meal programmes serving homeless people in Toronto', *Public Health Nutrition*, 11:12, pp. 1296–305.
- Vingen, H. A. and Gallegos, D. (2014), 'Defining food literacy and its components', *Appetite*, 76:1, pp. 50–59.
- Wilson, C. (2014), *Interview Techniques for UX Practitioners*, Burlington, MA: Morgan Kaufmann.
- Wrieden, W. L., Anderson, A. S., Longbottom, P. J., Valentine, K., Stead, M., Caraher, M., Lang, T., Gray, B. and Dowler, E. (2007), 'The impact of a community-based food skills intervention on cooking confidence, food preparation methods and dietary choices: An exploratory trial', *Public Health Nutrition*, 10:2, pp. 203–11.
- Zampollo, F. (2016), 'What is food design? The complete overview of all food design sub: Disciplines and how they merge', November, [https://www.researchgate.net/publication/310706545\\_What\\_is\\_Food\\_Design\\_](https://www.researchgate.net/publication/310706545_What_is_Food_Design_)

The\_complete\_overview\_of\_all\_Food\_Design\_sub-disciplines\_and\_how\_they\_merge. Accessed 24 January 2022.

Zimmerman, J., Stolterman, E. and Forlizzi, J. (2010), 'An analysis and critique of research through design: Towards a formalization of a research approach', in *DIS '10: Proceedings of the 8th ACM Conference on Designing Interactive Systems*, Aarhus, Denmark, 16–20 August, New York: Association for Computing Machinery, pp. 310–19.

## SUGGESTED CITATION

Campagnaro, Cristian, Passaro, Raffaele and Curtabbi, Giorgia (2023), 'Alimenta: A design-led systemic action against homelessness-related food poverty', *International Journal of Food Design*, online first, [https://doi.org/10.1386/ijfd\\_00063\\_1](https://doi.org/10.1386/ijfd_00063_1)

## CONTRIBUTOR DETAILS

Architect and Ph.D. in technological innovation, Cristian Campagnaro is an associate professor from the Department of Architecture and Design at Politecnico di Torino. He focuses his research on both eco-design for sustainable processes and design for social inclusion. Since 2014 he has been coordinating: 'Alimenta', a system action for the access to food for people experiencing homelessness; he conducts the research-action 'Living in the Dorm' and the lab 'Crafting Beauty' on homeless inclusion. Since 2017, he has been scientific director of the Politecnico di Torino 'Food Design Lab'. He oversees and conducts participatory workshops involving students, policy-makers, public and private social operators, as well as citizens.

Contact: Dipartimento di Architettura e Design, Politecnico di Torino, Viale Pier Andrea Mattioli, 39, 10125 Turin, TO, Italy.  
E-mail: [cristian.campagnaro@polito.it](mailto:cristian.campagnaro@polito.it)

 <https://orcid.org/0000-0002-7318-7430>

Raffaele Passaro is a Ph.D. student in management, production and design. His research is called 'Food social design: Design against food poverty'. He works on projects concerning social inclusion in urban contexts of social marginality, investigating the various aspects inherent to the phenomenon of food poverty. Since 2019 he is coordinator of the Politecnico di Torino 'Food Design Lab' and since 2016 he collaborates in the project 'Fighting Food Waste Design Focus', of the Department of Architecture and Design of the Politecnico di Torino. Also since 2021 he is an adjunct professor at the three-year degree in design and communication of the Politecnico di Torino.

Contact: Dipartimento di Architettura e Design, Politecnico di Torino, Viale Pier Andrea Mattioli, 39, 10125 Turin, TO, Italy.  
E-mail: [raffaele.passaro@polito.it](mailto:raffaele.passaro@polito.it)

 <https://orcid.org/0009-0001-9755-0214>

A graduate in systemic design at Politecnico di Torino, Giorgia Curtabbi is a Ph.D. candidate in management, production and design at the same institute,

Delivered by Intellect to:

Guest (guest)

IP: 109.53.160.63

On: Sun, 08 Oct 2023 07:08:00

where she previously was a research fellow. Starting with her master's thesis work, she began to explore the theme of design for policy, the subject of her doctoral research. Her investigation encompasses the fields of policy and social design, with particular reference to services and policies for severely marginalized people and food policy. She is involved in participatory co-creation and co-design processes with citizens, and social and institutional actors in the city of Turin for both areas of research.

Contact: Dipartimento di Architettura e Design, Politecnico di Torino, Viale Pier Andrea Mattioli, 39, 10125 Turin, TO, Italy.

E-mail: [giorgia.curtabbi@polito.it](mailto:giorgia.curtabbi@polito.it)

 <https://orcid.org/0009-0003-4563-7769>

Cristian Campagnaro, Raffaele Passaro and Giorgia Curtabbi have asserted their right under the Copyright, Designs and Patents Act, 1988, to be identified as the authors of this work in the format that was submitted to Intellect Ltd.

---