

<b>City</b> <b>Cremona</b>	
<b>Country</b>	Italy
<b>Population</b>	72,561
<b>Title of policy or practice</b>	Food Waste
<b>Subtitle (optional)</b>	Food donation and distribution network
<b>URL video</b>	<a href="https://www.youtube.com/watch?v=t3GoEacCAi8#action=share">https://www.youtube.com/watch?v=t3GoEacCAi8#action=share</a>
<b>Category</b>	Food Waste
<b>SDGs</b>	SDGs: 1, 2, 4, 11, 12, 13.
<b>Brief description</b>	<p>Since 2016, the Municipality of Cremona, together with 27 partners of six European countries, is leader of the European project Horizon 2020 Urban Wins – Urban Metabolism Accounts for Building Waste Management Innovative Networks and Strategies – which researches and tests innovative and sustainable Strategic Plans for the reduction and management of waste and more generally of natural resources in various urban contexts. The approach is the integrated urban metabolism, i.e. the knowledge of environmental data and material and energy flows supporting social and economic activities within the city, intended as a living organism stocking goods and energy; it produces, consumes and generates wastes.</p> <p>The project, at local level, scheduled a participative programme to identify the city priorities for action: inside this programme, in which actors from different sectors (Municipality of Cremona; citizens, trade and professional associations, politics; industrials, services and education representative) participated, food waste was found one of the primary theme to tackle. In this context, a pilot action was identified concerning the recovery and donation of food surpluses and expiring products within the large-scale distribution sales points located in the municipal area. The general objective of sales point was that to conduct a first quantification and analysis on food losses and food waste, in order to establish activities to reduce food losses by encouraging food donation with the purpose of social solidarity.</p> <p>This action brought out dynamics and critical issues of minimizing food waste and increasing food donations. However, it is possible to decrease food waste and achieve SDGs goals through a coordinated management.</p>
<b>Date of start and state (ongoing/completed)</b>	07/2018 Ongoing
<b>Actors and stakeholders involvement</b>	The main actors of the initiative are Municipality of Cremona, large-scale distribution, representative of the third sector – particularly associations working with the most vulnerable groups – and considering the birth and the implementation of the action, the schools, trade and professional associations and people in need, too.
<b>Approach</b>	<ul style="list-style-type: none"> <li>• Preliminary activities to study material fluxes of the large-scale retailing system and of the local associations that collect products surpluses;</li> <li>• Activities of awareness-raising for the citizenship;</li> <li>• Analysis of the results: <ul style="list-style-type: none"> <li>• Protocol of agreement with the associations of the territory;</li> <li>• Designing and development of SprecoSmart app, a tool that can raise awareness on how to use material and human resources to follow the circular economy principles through a network of people and initiatives.</li> </ul> </li> </ul>

<b>Innovation</b>	<p>Food production, particularly in developed countries, has a significant impact on the use of valuable resources such as water and soil, and in addition a large percentage of CO<sub>2</sub> comes from the production, processing and transport of food products, a third of which is not consumed. By intervening in the various stages of the food system, fighting waste contributes significantly to the reduction of greenhouse gas emissions. The action aims to intervene on the waste of large and medium distribution, on the recovery of unsold products, those not consumed in school canteens and, in the future, company canteens. The purpose of the action was to define a structured system of donations that, through the third sector, can put the various realities dealing with this subject into a network, rationalizing and optimizing the activities to obtain an effective distribution of donations, guaranteeing access to healthy food even to vulnerable groups and an effective food waste reduction. In particular, some activities, that already existed on the territory and that dealt with local production, distribution and transformation of unsold surpluses thanks to the work of the prisoners of the local prison, have been assimilated. The Sprecosmart App gives visibility to local economic activities, stimulates citizens to reduce food waste, contributes to the creation of association networks also with other cities supporting welfare.</p>
<b>Impact</b>	<p>The main objective of the action is to guarantee access to high quality food for disadvantaged citizens and to promote the principles of the circular economy, therefore, the containment of the waste of energy, ingredients and natural resources. In this context, the short supply chain was also promoted to expand the demand for local food from small-scale productions by citizens and institutions and to influence the food supply criteria. One activity also involves the employment of prisoners from the local prison in the processing of unsold and still edible local agricultural products. However, the action has a broader scope as it aims to raise awareness among citizens and in particular the younger generations, affect lifestyles and promote informed purchases. The environmental and economic advantages are evident in terms of reducing the amount of waste that is not delivered to disposal centres, of energy and of greenhouse gas emissions. Starting from the GDO flows (unsold item to insert), the chain of donations also allows to create new jobs, in a city context in which the exclusive presence of volunteers determines critical factors in some phases of the donation, as emerged from the study that also analysed the dynamics of the third sector. The action considered a sample of 50 families.</p>
<b>Inclusion</b>	<p>The action originates in a context in which the city is intended as a living organism that has its own metabolism, consumes, produces and generates waste. It was intended to identify the critical points and the levers on which to act to contain the waste of materials, in particular related to the production of food, and energy. The action was designed "from below", starting from the study of social and economic realities that are already dealing with the fight against waste. Particular importance was given to raising awareness among citizens and young generations. Food and waste were assessed in a broad dimension that included the assessment of the environmental impacts of surplus production, highlighting the importance of adopting sustainable lifestyles and informed purchases to contain the environmental impact of the cities. The social implications of the action are evident, since a model of a reproducible system for the donation that also provides for the creation of new jobs has been established, considering that the voluntary activity, if exclusive, appears to be a critical point of the whole system. The objective is to develop and strengthen social bonds to be promoted within disrupted or disadvantaged urban or extra-urban areas, to strengthen the resilience of the poor or those who are in situations of vulnerability, contrasting the conditions of fragility in order to intervene on phenomena of marginality and social exclusion.</p>
<b>Adversity coefficient</b>	<p>The action addresses two aspects. The main aspect is to guarantee access to healthy food for all social groups, in a social context where the cases of poverty linked to the economic crisis are on the rise. The problem was faced by creating a system of donations which allows to divert the food</p>

losses towards disadvantaged people through the knowledge of the production and distribution cycles in the large-scale distribution and in the media distribution. This helps to create social opportunities and limit environmental impact. The other aspect of the challenge turns out to be raise the citizens' awareness of sustainable lifestyles and consumption and of the impact of individual actions on the city's metabolism. The involvement of small commercial realities, as well as large-scale retail trade, and citizens is important, also through the use of innovative systems such as the App that was created in the context of the action and which represents a virtual showcase. Thanks to the App, the stores Neighbourhood can intervene in the system of donation and containment of waste and that allows to make the supply and distribution system denser. The environmental challenge that aims to contain CO2 emissions and the total production of waste that must find ways of sustainable providing are also relevant. Exporting the project to other cities in the Lombardy region would make replicating and implementing the network possible by involving different actors and local authorities in order to define the monitoring of digital data and a definitive format for project continuity and export to other urban contexts.