FOOD IN CITIES: STUDY ON INNOVATION FOR A SUSTAINABLE AND HEALTHY PRODUCTION, DELIVERY AND CONSUMPTION OF FOOD IN CITIES

Second report: In-depth case studies of cities having benefitted from EU funded projects

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EUROCITIES, CITY OF MILAN
Anja De Cunto, Feyrouz Lajili-Djalaï, Cécile Michel, Francesco Brusaporco

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Contents

Aims and objectives of the study .........................................................3

Main findings and recommendations for future research and innovation funding programme .................................................................4

Enabling a strong impact of European project results in cities .....................5

Complementarity with other source of funding ........................................7

Policy recommendations ........................................................................7

Use of European funded project in cities ................................................8

Five European ‘food’ realities ..................................................................11

Rotterdam: a strong focus on economic development ............................... 19

Ljubljana: an attention to rural development and urbaN GARDeNs ............ 26

Gothenburg: environmental considerations driving a comprehensive food strategy .... 34

Milan: seeking cooperation across departments and stakeholders’ involvement ........ 42

Lisbon: healthy food and social considerations ....................................... 53

Conclusion ............................................................................................61
Aims and objectives of the study

This report is part of the ‘Food in cities: study on innovation for a sustainable and healthy production, delivery and consumption of food in cities’ project.

The main aim of the study is to gain a better understanding of the food innovation dynamics in cities, and to clarify the role the EU’s research and innovation projects can play in supporting them.

The study is composed of three consecutive actions:

- **TASK 1 (December 2016-April 2017):** Mapping innovative urban food strategies designed to promote the production, delivery, and consumption of sustainable and healthy food.
- **TASK 2 (April 2017-June 2017):** Compiling five in-depth case studies from cities that have benefitted from EU projects supporting innovative solutions for sustainable and healthy production, delivery, or consumption of food in cities, in order to understand their impact.
- **TASK 3 (July 2017):** Production of the final report.

The study was commissioned by the European Commission’s DG Research and Innovation under Framework Contract 30-CE-0833121/00-49.
Main findings and recommendations for future research and innovation funding programme

Many differences emerged from our five in-depth case studies in the impact that EU funded projects can have in local authorities’ development of food related urban strategy, policies or projects. A variety of conditions can determine this impact: the structure of the project and its objectives and the level of involvement of local authorities’ officials in the development of the project and its results.

Differences in impacts are to be found according to whether the local authority was a full partner or not in the project, which influenced the amount of time city officers could dedicate to the development or testing of project research questions and results, and in establishing political willing to use the project results.

The main findings from the five case studies are summarised below:

1) When city officials are project partners it is clearer/easier to define the impact of the project at the city level, as the political commitment plays a key role in ensuring project impact.

2) The projects have the possibility to facilitate links with different organisations and stakeholders and to provide input into the development of the food strategy.

3) Projects have a stronger impact where cities have the possibility to learn and exchange successful good practices with each other.

4) Research is fundamental in providing data and data analysis, but research questions need to be defined together with the users to maximise the project impact.

5) Often the project produces an impact in the city, but the fact that the results of the work are from EU funding sources is not recognised.

6) The projects need to include different segments of society to be effective, with clear roles in the project and assigned resources.

7) A short project duration can impede concrete results in cities, as impact at the local level often requires a longer time to ensure the collaboration of different actors.

8) It is difficult to evaluate the impact of the project beyond its duration. The impact is often underestimated as some project results (tools, data, connections, etc.) continue to be used.

9) Regardless of the size of the project, when it includes the development of a city strategy, which must be endorsed at the political level, there is a stronger project impact.

It is also important to note certain differences in the methodology and impact of FP7
compared to Horizon2020 projects. Even if the H2020 projects we took into consideration did not yet focus on urban food in a holistic way, it is possible to observe the better attention paid to the participation of local authorities’ representatives in the project and the project results development. H2020 projects have also shown to have a more holistic approach to urban issues, as, for example, they focus on circular economy, nature based solutions, sustainable and efficient urban mobility, tourism and economic development for food waste reduction, which are areas of work that were traditionally treated in separate ways.

**Enabling a strong impact of European project results in cities**

Through the analysis of the five case studies, it was possible to extract some of the conditions which can hamper a full exploitation of the project results in cities. From these findings, we can draw a few recommendations for the future development of the research and innovation funding programme, provisionally called “FP9”.

The most important condition is the presence (or not) of a strong political will of the city to work on the project priority.

1) **Include city representatives and other relevant actors active in the food system, like citizens’ associations and private companies, as full project partners, with assigned resources and responsibilities.**

The participation of city officials as full partners is key to ensure that funded projects contribute to capacity building, particularly in relation to the collection and analysis of policy-oriented data on urban food sustainability. The involvement of city officials also facilitates the construction of awareness at the political level and therefore a stronger impact of the project results, which often goes beyond the duration of the project itself. City officials should also be included in the development of the research questions and project activities. The case of Milan (and other city partners of the project such as Ghent, Bruges and Utrecht) show how a project can create a long-lasting impact and create the right conditions at the local level to obtain a strong political push in a certain direction. In the case of Gothenburg, the projects were found to strongly contribute to the further development of the political priorities which had already been identified at mayor’s level.

2) **Allow for more flexibility of the projects in order to accommodate any changes in political direction and priority which might take place at local level.**

The change of political priorities in the case of Rotterdam determined the emergences of new research needs which had to be answered through public procurement tenders. Some of the people we interviewed mentioned the rigidity and control of the EU funded project. However, projects are obliged to follow a certain number of deliverables and objectives even if stakeholders come up with a different strategy or priority half way through the project duration. This can then effect the project impact.
3) Enable projects dedicated to exchanging best practice among cities.

As in the cases of Gothenburg and Milan, projects that enable cities to exchange and learn from each other have been found to have a stronger impact in cities. As food is a relatively new area of activity for many cities there is a necessity to exchange good practice and lessons learned. A key mechanism in this respect could be the establishment of global, national and regional platforms that support the exchange of knowledge and competences and, longer-term, can provide the basis for the development of a global repository of good practices about urban food policies, programs and initiatives.

4) Allow for longer project duration and the development of plans to ensure the sustainability of the project beyond its lifetime.

Changes at the city level require a long time as they need the involvement of different actors. In some cases, it is possible to notice a use of project results beyond the duration of the project and beyond the cities that were involved in it. The impact of the project beyond its duration is also determined by the continuity of the people involved in it at research or city level. For example, strong relationships between the local university or research centre and the local authority allow for project results to be reused and adapted, so its use continues beyond the project duration.

This is the case in the cities of Amsterdam and Almere and their collaboration with the University of Wageningen. The impact of the project beyond its lifetime is mainly the result of further collaboration between city officials and researchers.

5) Better communication of the impact of EU added value.

While the researcher or university will know that their work and collaboration is building on the results from EU funded projects, city officials and other organisations are not often not aware of this connection.
Complementarity with other source of funding

All interviewed local authorities had difficulties in providing a clear overview of the budget and sources that local authorities dedicate to food related actions in their city. This is mainly due to the numerous city departments involved in all the many and varied food related actions in the city, which make it hard to accurately map all the city activities related to food and their respective budget. In Milan, it was possible to find one of the clearer overviews because the city is going through the creation of a cross-departmental food officer, under the Mayor’s cabinet, who is responsible for coordinating all the food related activities in the city.

In some cases, it was possible to find complementarity between the use of municipal budget and European sources of funding, such as European Regional Development Funds (ERDF), European Social Funds (ESF) for the Gothenburg case and the European Agricultural Fund for Rural Development (EAFRD) as in Ljubljana.

In the case of Rotterdam, the relatively small budget that the city receives from ERDF is mainly dedicated to economic development and business creation, which goes in line with their political priorities but is not necessarily used for the food cluster activities. In this case, most of the activities are financed through the city budget.

Milan provides a good example of a city able to build its work on multiple European projects: the work and relations initiated at local level by the Food Smart City for Development project were fundamental in providing the city with the capacity to apply for the Urban Innovative Action Fund, which allowed the city access to almost 5 million euros.

All the respondents have indicated a need for better coordination of the different EU funding programmes. A dialogue between the various EU funds would provide an added value for the various projects and allow local authorities to be able to build on the previous projects and continue the work which was started.

Also, respondents mentioned their wish for better coordination with the common agricultural programme of the EU and the urban sustainability policies which have an impact on the possibilities for peri-urban food production.

Policy recommendations

Food topics are working their way up city agendas, but they remain a challenge as they require the integration of many segments of society, different levels of governance and collaboration between various policy areas.

The case studies show that in many cities food related activities are still fragmented across different departments. At the same time, there is often one specific department with
defined priority goals, which has a strong impact in the type of activities and work of that city in relation to food. The national context and priorities, but also culture norms and cultural heritage (such as the presence of a large number of obese children or food poverty) could determine which policies and activities the city will choose to prioritise.

Cities often face the following challenges when looking to implement food strategies:

1) Challenging or adverse political situations: i.e. food activities are not seen as a political priority.
2) Lack of participation - and therefore engagement and support - of main actors in the food system within and outside local government;
3) Absence of policy coherence among different level of governments, i.e. presence of national policies that restrict, limit or contradict municipal authority priorities or;
4) Lack of jurisdiction in food related activities, i.e. food production is often a competence of the regional level.
5) Absence of effective multi-sector, multi-actor and multi-level engagement mechanisms, among different city departments, different levels of government and different types of actors (CSOs, private sector, research organisations).
6) Missing links between research, practice and policy.

To overcome these challenges, cities have developed the following solutions:

1) Identify and select entry points for food-related activities that will be both successful and demonstrate impact, in order to build a coalition of support across government and other stakeholders and actors.
2) Use longer planning cycles to transcend political or election cycles.
3) Establish mechanisms for the engagement of different city departments, different levels of government and different local actors, such as food councils with the full and meaningful inclusion of civil society and cross-department working groups.
4) Secure parallel sectoral or multi-level governmental support (e.g. from subnational, regional or national governments).
5) Collaborate with universities and research centres to collect data and monitor the impact of the food activities.
6) Build demand-driven and mutually beneficial learning and exchange networks with local authorities at national or international level.

Use of European funded project in cities

The following section outlines some of the results that emerged from the surveys and focus
groups which were conducted during the first part of the project. The project was initially intended to select cities, and the projects where they have been involved, through a decision matrix. However, relatively early on in the study it became clear that the cities’ respondents had difficulty identifying European research and innovation funded projects that had contributed to the development of their food activities. This is also due to a very recent rise in attention to the role of cities in the food system¹.

Therefore, it was necessary to do a reverse process, where different FP7 and H2020 projects looking at food areas were researched in order to identify their relations with local authorities and possibly an impact in local authorities’ food related work. After this research, the five cities and their projects, which are the object of this study, were selected taking into consideration, as much as possible, geographical balance and differences in the type of projects analysed. The source of the chosen projects is mainly FP7 and H2020, but also URBACT, Urban innovative Actions (UIA), ERDF and EUROPEAID. The themes of the projects are also different, focusing on different food related activities (food production, consumption, delivery, food waste etc.).

The survey revealed that more than 50% of respondents had identified a European project as contributor to the development of their food related activities (see Table 1). However, a further analysis of the answer showed that there is a lot of misunderstanding, particularly from cities outside of Europe, on what was indicated as a European funded project. Cities also mentioned other sources of international support or collaboration coming from international actors (i.e. FAO, C40 organisation, etc.).

Table 1 Percentage of cities which has identifies a EU project as contributor to their food work

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>52.9%</td>
<td>18</td>
</tr>
<tr>
<td>NO</td>
<td>47.1%</td>
<td>16</td>
</tr>
<tr>
<td>Add Comments:</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

answered question 34
skipped question 5

¹ However, many of the most recent H2020 projects are focusing on urban food, i.e. SHARECITY http://sharecity.ie/ , but it was too early to see a strong impact in cities.
In the following table (table 2) have been extracted only the relevant answers provided by cities. Projects which were financed though research and innovation funding programme are added in bold.

**Table 2 Detailed answers provided from cities**

<table>
<thead>
<tr>
<th>City</th>
<th>Project/Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genoa, Italy</td>
<td>Project BAMPE - “Bambini e prodotti di eccellenza” - ITA-FRA Maritime funds 2011-2013 (ERDF)</td>
</tr>
<tr>
<td>Paris, France</td>
<td>City Logistics in Living Laboratories (H2020) Think Nature (H2020)</td>
</tr>
<tr>
<td>Mollet Del Valles, Spain</td>
<td>Diet for Green (URBACT), Agri-Urban (URBACT), STEP (H2020)</td>
</tr>
<tr>
<td>’s hertogenbosch, The Netherlands</td>
<td>ACTTiVATe (Food and Aerospace, European cluster collaboration platform)</td>
</tr>
<tr>
<td>Barcelona, Spain</td>
<td>Food Smart City For Development (EUROPEAID)</td>
</tr>
<tr>
<td>City of Ljubljana, Slovenia</td>
<td>Greensurge (FP7)</td>
</tr>
<tr>
<td>Zaragoza, Spain</td>
<td>AgroEco cities European network (LIFE)</td>
</tr>
<tr>
<td>Milan, Italy</td>
<td>Food Smart City for Development (EUROPEAID); Open-Agr (Urban Innovative Action)</td>
</tr>
<tr>
<td>Bruges, Belgium</td>
<td>Food Smart City for Development (EUROPEAID)</td>
</tr>
<tr>
<td>Bilbao, Spain</td>
<td>Food Smart City for Development (EUROPEAID)</td>
</tr>
<tr>
<td>City of Gothenburg, Sweden</td>
<td>Sustainable Food in Urban Communities (URBACT), Making Places Profitable (INTERREG EUROPE), SEEDS: Stimulating Enterprising Environments for Development and Sustainability (INTERREG), Stadslandet Göteborg (ERUF), RETHINK (ERANET - FP7), Reform Europe, Måltiden- en del i lärandet (European social fund), Restaurang, och Storhushållsprojektet i Gården (European social fund), LLU Lokalt Ledd Utveckling (LEADER)</td>
</tr>
<tr>
<td>Métropole de Lyon - France</td>
<td>Sustainable Food in Urban Communities (URBACT)</td>
</tr>
</tbody>
</table>

A similar outcome had emerged when cities were asked whether a specific tool, solution or best practice that they were using was a result of a European funded projects (table 3).

**Table 3 Percentage of cities indicating that they have benefitted from a solution developed through an EU funded project**

| FOOD IN CITIES: study on innovation for a sustainable and healthy production, delivery and consumption of food in cities. |
| Has your city benefitted from a solution or best practice related to food developed in the framework of a European project? If yes which one, what was the project? |

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>52.9%</td>
<td>18</td>
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<tr>
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<td>16</td>
</tr>
<tr>
<td>Add Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

answered question: 34
skipped question: 5

However, it must be notice that cities officials have often difficulties in realising that the support and collaboration or a specific tool or data analysis that they get from research centres and universities are often the results of European funded projects.
Five European ‘food’ realities

The following sections includes the five case studies and their analysis. For each case study, four areas have been investigated, through analysis of documents and interview with city officials, researchers and, when possible, local politicians.

1. The overall city strategy or actions related to food.
2. The outcomes and deliverables of the European funded project/s looking at food where the city has been involved.
3. Assessment of whether these EU funded projects have contributed (or are planning to contribute, for current project) to the overall food strategy development (or actions) of the city.
4. Look at how European funding for research and innovation have complemented other sources of funding that the city use for the development of their food work.

The map below show the five cities selected for in-depth case study.

![Map of Europe highlighting five cities](image-url)
The table below summarises the level of impact of the project in the development of the city activities related to food, as assessed by interviews with city officers and researchers. The following categories have been used: none, limited, medium, high, extremely high.

**Table 4 Overview of the cities and the projects where they have been involved and their impact**

<table>
<thead>
<tr>
<th>City</th>
<th>Projects</th>
<th>Source of funding</th>
<th>Impact to the development of the city food related activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam, the Netherlands</td>
<td>SUPURBFOOD</td>
<td>FP7</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>FOODMETRES</td>
<td>FP7</td>
<td>Medium</td>
</tr>
<tr>
<td>Ljubljana, Slovenia</td>
<td>GREENSURGE</td>
<td>FP7</td>
<td>Extremely High</td>
</tr>
<tr>
<td></td>
<td>FOODMETRES</td>
<td>FP7</td>
<td>Limited</td>
</tr>
<tr>
<td>Gothenburg, Sweden</td>
<td>RE-THINK</td>
<td>ERA-NET, FP7</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>CLIMATE KIC</td>
<td>Partly funded through H2020 budget</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Sustainable Food in Urban Communities</td>
<td>URBACT</td>
<td>High</td>
</tr>
<tr>
<td>Milan, Italy</td>
<td>FOODMETRES</td>
<td>FP7</td>
<td>Limited</td>
</tr>
<tr>
<td></td>
<td>Food smart city for development</td>
<td>EUROPEAID</td>
<td>Extremely high</td>
</tr>
<tr>
<td></td>
<td>OPEN AGRI</td>
<td>Urban Innovative Actions</td>
<td>(expected impact) Extremely High</td>
</tr>
<tr>
<td></td>
<td>U-TURN</td>
<td>H2020</td>
<td>(expected impact) High</td>
</tr>
<tr>
<td>Lisbon, Portugal</td>
<td>URBAN-WASTE</td>
<td>H2020</td>
<td>(expected impact) High</td>
</tr>
<tr>
<td></td>
<td>FORCE</td>
<td>H2020</td>
<td>(expected impact) Extremely high</td>
</tr>
</tbody>
</table>
The tables below summarised the main results from the five case studies. The case studies are then treated in details in the sections below.

**Table 5 Information on food related activities and strategies in the cities**

<table>
<thead>
<tr>
<th>Cities</th>
<th>Rotterdam</th>
<th>Ljubljana</th>
<th>Gothenburg</th>
<th>Milan</th>
<th>Lisbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of a holistic food strategy</td>
<td>No, is present “The Food Cluster” governance system.</td>
<td>The city does not have a food strategy per se, but it is implementing a comprehensive “Strategy for Rural Development 2014-2020”.</td>
<td>A comprehensive strategy is being developed, led by strong environmental considerations.</td>
<td>A strategy is in development. The “Guiding Principles of the Milan Food Policy 2015-2020” a result of a very participatory process with around 1000 stakeholders.</td>
<td>No. There is a “Municipal plan to combat food waste” dated February 2015.</td>
</tr>
<tr>
<td>Who has main competence over food activities?</td>
<td>The Rotterdam Food Cluster initiative is competence of the Economic Development department, but other food related actions are competence of other city departments (i.e. inclusion and food waste)</td>
<td>Manly led by the Department of Environmental Protection. The Department for Preschool Learning and Education and the one for Health and Social Security are also involved in the management of food related issues.</td>
<td>The food strategy is being developed by the Environment Department, but the Real Estate Department which manage the peri-urban lands owned by the Municipality, is also involved into food activities.</td>
<td>The vice-mayor has been recently appointed as the food policy coordinator to foster an interdepartmental approach in the city.</td>
<td>Many of the activities related to food and healthy food that are under the Social and Health department. Some projects and activities are under the Green structure and energy department.</td>
</tr>
<tr>
<td>Main areas of work in the city</td>
<td>Business support and economic development, research and skills, combining health/medical with food research, increasing the position of Rotterdam as main European logistical food hub (port).</td>
<td>Food self-sufficiency - paying attention to the socio-cultural implications of food (enfranchisement of rural people and preservation of rural culture)</td>
<td>Reducing the driver of climate change, urban and peri-urban farming, organic food, sustainable diets, social integration, food independence.</td>
<td>City sustainability through food system sustainability. Healthy food and consumer awareness. Fight against food waste. Agri-food research.</td>
<td>Healthy food, promoting Mediterranean regime, combat childhood obesity, green infrastructure, social inclusion.</td>
</tr>
<tr>
<td>Role of food at the national level</td>
<td>The Ministry of Agriculture, Nature Management and Fisheries (LNV) was merged with the Ministry of Economic Affairs. The national level supports and collaborate in the City Deal initiative, a new form of collaboration between Dutch cities on their work on food.</td>
<td>A new and all-encompassing strategy on Food, Nutrition &amp; Physical Activity (FN&amp;PA) was developed for the period 2015-2020, focusing on the relation between food and health (combating child obesity)</td>
<td>In 2015 the government began to draw a long term national food strategy, that will emerge from an intensive dialogue process with companies, organisations etc.</td>
<td>Growing political consensus around food issues. 2016 avant-garde “Gadda law” against food waste, preferring incentives to punishments. Development of EU scheme for fruits and vegetables at school addressing child obesity. However, not an overall food strategy.</td>
<td>The Directorate-General of Health is responsible since 2012 for the monitoring of the Portuguese National Programme for the Promotion of Healthy Eating, the Ministry of Health policy programme</td>
</tr>
<tr>
<td>Type of stakeholders involved in food policy and actions</td>
<td>Companies, SMEs, researchers (triple helix). To a less extent farmers, consumers and CSOs.</td>
<td>The successful case of GREEN SURGE saw the involvement of the Municipality, Universities (University of Ljubljana local leading partner), SMEs as official stakeholders and of an NGO (bringing in composite group including engaged students and school dropouts) as a project partner.</td>
<td>Farmers, migrants, schools, NGOs (e.g. Changemaker), researchers and the university (e.g. University of Gothenburg)</td>
<td>The OpenAgri project involved three main institutional partners - the local chamber of commerce, Politechnic and science and technology park). In other cases majority of partners academic institutions and SMEs (COLDIRETTI - Federation Italian Farmers).</td>
<td>National level, migrants, schools, local producers, catering private institutions.</td>
</tr>
</tbody>
</table>
### Table 6 Role and impact of European funded projects in the cities

<table>
<thead>
<tr>
<th>Cities</th>
<th>Projects the city is/was involved in</th>
<th>Summary of the impacts of the projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam</td>
<td>Rotterdam was used as case study in two FP7 projects SUPURBFOOD and FOODMETERS, both coordinated by WAGENINGEN university, a research centre in Wageningen, a small town one hour drive to the east of Rotterdam that still collaborates with the city.</td>
<td>The SUPURBFOOD project contributed to the further work of the Rotterdam food council, on organism which was, however, left aside by the development of the Food Cluster initiative. It also contributed to the creation of the City-country masterclasses, part of the food cluster. Researchers from FOODMETERS collaborated to the development of the Food Cluster initiative. However, project results were not used by the municipality due to the changes in political priority from short supply chain to long supply chain.</td>
</tr>
<tr>
<td>Ljubljana</td>
<td>Ljubljana was used as a case study in two project FOODMETERS and GREEN SURGE, two FP7 funded projects. The case studies were led by the University of Ljubljana.</td>
<td>The FOODMETERS research results identified a shorter food supply chain as a possible solution to the productive deficit of the Municipality. However, results have not been sufficiently disseminated among city officials. The GREEN SURGE project, on the contrary, started from the very beginning a strong collaboration with the municipality. The improvement in urban gardening gave a contribution to social inclusion.</td>
</tr>
<tr>
<td>Gothenburg</td>
<td>Climate KIC - partly funded by H2020 URBACT - instrument of the Cohesion Policy, co-financed by the European Regional Development Fund. Stadslandet - pilot project partly funded by the city and partly by the EU through the European Development Fund.</td>
<td>In the framework of Climate KIC, a new business-model, focused on public-private solutions and partnerships will be developed in cooperation with the city; the research conducted during the project will feed the future food strategy. The URBACT project allowed the city to write an Action Plan, and to share knowledge with other cities. The project Stadslandet allowed the development of many food related activities.</td>
</tr>
<tr>
<td>Milan</td>
<td>Food Smart Cities for Development (FSC4D) - EuropeAid FOODMETERS - FP7 (DG RTD) U-TURN - H2020 (DG RTD) OpenAgri -UIA (DG REGIO)</td>
<td>FSC4D raised awareness about urban food policies and sustainable development and created political value. Local Food Policy and trans-local Milan Pact (MUFPP) among the deliverables. The FOODMETERS analyses struggled to reach the political agenda and it was therefore underestimated. U-Turn is aiming at developing a new model of collaborative logistics. OpenAgri the most ambitious project wants to create an open-innovation hub on peri-urban agriculture for supporting young and small entrepreneurs.</td>
</tr>
<tr>
<td>Lisbon</td>
<td>U-Turn and FORCE are two H2020 funded projects that have only recently started. However, the municipality of Lisbon is involved in a variety of projects under H2020, also focusing on disaster resilience, smart cities and citizen’s involvement.</td>
<td>A strong impact is expected by these two projects in the city, especially to the improvements in cost, material and waste management hierarchy in Lisbon. The project will also look at the prevention of food waste in Lisbon, that will be reached thanks to the use of the different Apps developed by the two projects. These projects will help reducing waste production and raise awareness, but also help cities to share good practices with other local realities.</td>
</tr>
</tbody>
</table>
Table 7 Overview of the EU funded projects analysed

<table>
<thead>
<tr>
<th>City</th>
<th>Projects</th>
<th>What is the project about?</th>
<th>Starting date</th>
<th>Type of partners involved</th>
<th>Total Budget</th>
<th>Budget for the city</th>
<th>Deliverable for the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam</td>
<td>SUPURBFOOD</td>
<td>Towards sustainable modes of urban and peri-urban food provisioning. Until recently, short food supply chains and multifunctional agriculture were considered to be part of the rural development realm. This project looked at these topics from the perspective of urban rather than rural development.</td>
<td>01/10/2012 to 01/09/2015</td>
<td>Universities, local food consultants, agricultural network</td>
<td>1 858 114,60</td>
<td>City not a partner</td>
<td>Case study on Rotterdam: <a href="http://www.supurbfood.eu/city-regions/city-region-rotterdam-the-netherlands/">http://www.supurbfood.eu/city-regions/city-region-rotterdam-the-netherlands/</a></td>
</tr>
<tr>
<td>Rotterdam</td>
<td>FOODMETRES</td>
<td>The project ‘Food Planning and Innovation for Sustainable Metropolitan Regions’ thrives to assess both the environmental and the socio-economic impacts of food chains with regard to spatial, logistical and resource dimension of growing food as well as food planning and governance.</td>
<td>01/10/2012 to 01/09/2015</td>
<td>Universities, think-thanks, agricultural and food institutes and networks, charity</td>
<td>1 855 911</td>
<td>City not a partner</td>
<td>Case study on Rotterdam: <a href="http://www.foodmetres.eu/case-studies/rotterdam-metropolitan-region/">http://www.foodmetres.eu/case-studies/rotterdam-metropolitan-region/</a> and development of tools to analyse the metropolitan opportunities for food production.</td>
</tr>
<tr>
<td>Ljubljana</td>
<td>FOODMETRES</td>
<td>The project ‘Food Planning and Innovation for Sustainable Metropolitan Regions’ thrives to assess both the environmental and the socio-economic impacts of food chains with regard to spatial, logistical and resource dimension of growing food as well as food planning and governance.</td>
<td>01/10/2012 to 01/09/2015</td>
<td>Universities, think-thanks, agricultural and food institutes and networks, charity</td>
<td>1 855 911</td>
<td>City not a partner</td>
<td>Case study on Ljubljana: <a href="http://bit.ly/2svQ9ZA">http://bit.ly/2svQ9ZA</a></td>
</tr>
<tr>
<td>Location</td>
<td>Initiative</td>
<td>Description</td>
<td>Start Date - End Date</td>
<td>Sponsors</td>
<td>Budget</td>
<td>Outcome</td>
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<tr>
<td>Gothenburg</td>
<td>RE-THINK</td>
<td>Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources</td>
<td>01/08/2013 to 01/12/2015</td>
<td>Universities, research institutions, associations for agricultural development.</td>
<td>2 700 000</td>
<td>City not a partner</td>
<td></td>
</tr>
<tr>
<td>Gothenburg</td>
<td>Ecobased agroforestry</td>
<td>Linking innovative models for ecosystem-based agroforestry as a key for new local strategies for sustainable interactive climate smart economic development</td>
<td>01/09/2016 to 01/11/2017</td>
<td>City of Gothenburg, municipality agencies, the Region Västra Götalandsregionen, consultancy, eco agroforestry centre</td>
<td>105 000</td>
<td>No budget</td>
<td></td>
</tr>
<tr>
<td>Gothenburg</td>
<td>Sustainable Food in Urban Communities</td>
<td>The thematic network “Sustainable Food in Urban Communities” involves ten European cities that wish to grow, deliver and enjoy more sustainable food: they are looking for joint, effective and sustainable solutions to develop low-carbon and resource-efficient urban food systems.</td>
<td>01/05/2012 to 01/04/2015</td>
<td>10 cities</td>
<td>695 000</td>
<td>50 000</td>
<td></td>
</tr>
<tr>
<td>Milan</td>
<td>Food smart city for development</td>
<td>The project involves 12 urban areas over three continents that coordinated their food policy and their international cooperation activities until the end of 2016. It aims to foster the role of the cities in changing the urban food production and consumption paradigm.</td>
<td>01/12/2014 to 01/12/2016</td>
<td>8 cities, International organisations, NGOs</td>
<td>2 700 000</td>
<td>700 000</td>
<td></td>
</tr>
<tr>
<td>Milan</td>
<td>FOODMETRES</td>
<td>The project ‘Food Planning and Innovation for Sustainable Metropolitan Regions’ thrives to assess both the environmental and the socio-economic impacts of food chains with regard to spatial, logistical and resource dimension of growing food as well as food planning and governance.</td>
<td>01/10/2012 to 01/09/2015</td>
<td>Universities, think-thanks, agricultural and food institutes and networks, charity</td>
<td>1 855 911</td>
<td>City not a partner</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Project</td>
<td>Website</td>
<td>Description</td>
<td>Start Date to End Date</td>
<td>Involved Partners</td>
<td>Budget</td>
<td>City Status</td>
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<tr>
<td>Milan</td>
<td>U-TURN</td>
<td><a href="http://www.u-turn-project.eu/">http://www.u-turn-project.eu/</a></td>
<td>The project will investigate and identify new models for urban food transportation to bring about environmental and societal benefits. Involving nine European partners, the project focuses on research and solutions to urban logistics in Athens, Milan and London.</td>
<td>01/05/2015 to 01/05/2018</td>
<td>Universities, companies, consultancy</td>
<td>2 735 542,50</td>
<td>City not a partner</td>
</tr>
<tr>
<td>Lisbon</td>
<td>URBAN WASTE</td>
<td><a href="http://www.urban-waste.eu/">http://www.urban-waste.eu/</a></td>
<td>The URBAN WASTE project aims to help develop strategies aimed at reducing the amount of municipal waste production as well as strategies to further develop re-use, recycling, collection and disposal of waste. In doing so URBAN-WASTE will adopt and apply the urban metabolism approach to support the switch to a circular model where waste is considered as resource and reintegrated in the urban flow.</td>
<td>01/04/2016 to 01/05/2019</td>
<td>8 cities, regional authorities, universities, planning agencies, waste agencies, consultancy</td>
<td>4 248 782,50</td>
<td>124 277 000</td>
</tr>
<tr>
<td>Lisbon</td>
<td>FORCE</td>
<td><a href="http://www.ce-force.eu/">http://www.ce-force.eu/</a></td>
<td>The FORCE project aims to transform waste into value through the application of circular economy principles. The four cities involved in the project, Copenhagen, Hamburg, Lisbon and Genoa, will develop four pilot projects focused on four different products and waste chains. Each city will also build-up a pilot project for the other products and waste chains for a total of four projects for each city.</td>
<td>01/09/2016 to 01/08/2020</td>
<td>4 cities, universities, nature protection associations, research institutes, recycling agencies, restaurants associations</td>
<td>11 308 117,50</td>
<td>1 650 000</td>
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</table>

A collaborative platform for supporting information sharing and the creation of appropriate logistics. A matching tool enabling the identification of logistics sharing matches either between different food suppliers supplying retail outlets or between different food producers or online food retailers supplying consumers directly.


App online Network Tool that will manage all the information related to food surplus. Online reporting tool with performance indicator.
ROTTERDAM: A STRONG FOCUS ON ECONOMIC DEVELOPMENT

Executive summary

Rotterdam has become well-known for its very strong approach to local economic development and support for jobs and skills creation. The metropolitan area has identified food activities as one of their three main economic priorities, generating an average of 27 billion euros per year. Collaboration with universities and companies is the main feature of the Food Cluster, a new governance model for the city, which uses the triple helix model. The metropolitan area has been a case study in two FP7 funded projects; SUPURBFOOD and FOODMETRES. A full use of project results in the city was hampered by the change in political priorities. However, collaboration with researchers and their projects has supported the initial development of the Food Cluster. The university is still using project results, even after the end of the project, in their work with local authorities. The case study is exemplary in understanding how a change in political priorities can undermine the full use of project results in cities.

The Netherlands is the world’s second largest exporter of agricultural products and is leading the way in innovative food technology and logistics. Rotterdam is home to the biggest port in Europe, which is also among the ten biggest ports in the world. It is a key logistical hub for the food sector of the Netherlands. Food related activity in the metropolitan area (which also includes The Hague), employs circa 15% of the working population and provides an average of 27 billion euros in turnover every year. It is therefore easy to understand how the city requires a strong strategy to best drive this enormous potential for economic development.

The local elections of 2014 changed the political climate at the municipal level, towards a more economic approach: food activities were defined as the third most important economic activity in Rotterdam (next to the port and medical sciences). Responsibilities over food related activities were moved from the department for urban planning (which was responsible for short food supply chains and urban agriculture), which merged with the municipal economic development department and with the civil works department. The newly created department takes a more systemic interest in the food industry but from an economic development perspective. This determined a shift in the use of local funds, from activities such as urban agriculture, and had an impact on the relevance of the local food council. The Food Council of Rotterdam consists of researchers, small and large local businesses, agricultural representatives, local government, and those responsible for
education who exchange ideas about food activities for the city⁴.

In 2010, a similar approach took place at the national level where the Ministry of Agriculture, Nature Management and Fisheries (LNV) was merged with the Ministry of Economic Affairs. Recently, the work of the Dutch city regarding food has also been supported by the “City Deal”, a new governance system initiated in the Netherlands during the National Food Summit of 26 January 2017. Through the City Deal ‘Food on the Urban Agenda’, 12 counsellors and Mayors, the deputy of the Province of Gelderland and three Ministers have started to collaborate to build an integrated food strategy for the Netherlands.

Officers from Rotterdam estimated that around forty people in the metropolitan area are currently working on themes related to food, even if the biggest share is taken by the number of staff engaged in the Rotterdam Food Cluster, led by the economic development department.

**The Rotterdam Food Cluster**

The development of the Food Cluster was triggered by a competition that Rotterdam entered to become a host of the World Food Centre. Although Rotterdam didn’t win the competition, the network of companies that was mobilised to put forward the bid continued to meet, laying the foundations of the Food Cluster approach. The local government started talking with companies, and conducted interviews and visits to understand how the city could facilitate their business models development.

Today the Food Cluster initiative is composed of local government representatives, more than 6,000 companies and education and knowledge institutions collaborating to boost investment in the local sectors. The approach follows a triple helix cooperation where companies, education centres and the government collaborate (Figure 1).

The work is led by a team of researchers (Wageningen University researchers among them) working on the “transition task”, working towards creating business models for a highly-advanced level of automation and digitisation of the food sector. The Rotterdam Food

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2 https://www.rotterdam.nl/wonen-leven/regionale-food-council/
Cluster³ follows the strategy indicated in the “Roadmap for the next economy”⁴, a blueprint for the development of the regional economy for the metropolitan area of Rotterdam-The Hague, which was developed in November 2016, based on the ideas of Jeremy Rifkin and the “Third industrial revolution” concepts.

The Food Cluster is currently working on three key projects: “Food for the Future”, “World Food Park” and the “Feeding the City” initiative.

Today, Rotterdam hosts the World Food Parc one of the most important developments in the Rotterdam Greenport area, where 100 hectares on the south side of Rotterdam are dedicated to the food business park. Already boasting a turnover of over 5 billion euros, and supplying retailers all over Europe, the park - which is also located close to Europe’s largest port - is already the most dominant Agro-logistical park in the Netherlands.

The Food Cluster is working on five complementary projects:

1) Smart Logistics System: for cost and sustainability reasons, it is intended to keep the number of transport movements as low as possible. The availability of a Smart Grid network facilitates a Smart Logistics system specifically created for perishables which require different transport conditions.

2) Human Capital Pool: to guarantee flexibility, availability and knowledge building, an employment pool will be developed and maintained by the collective of businesses.

3) Valorisation of all waste flows: the objective is not only to develop a circular flow system but to make those flows part of a feasible business model.

4) Production of sustainable energy: the companies will be shareholders in their own

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³ https://www.rotterdamfoodcluster.com/?lang=en

sustainable energy company, generating, using and selling energy from all possible sustainable energy suppliers.

5) Centre of Expertise: a centre for information and education activities.

Overview of the EU funded projects

SUPURBFOOD and FOODMETERS were two FP7 funded projects, both coordinated by Wageningen University and both running between October 2012 to September 2015. In both projects, the Rotterdam metropolitan area was used as a case study.

SUPURBFOOD - towards sustainable modes of urban and peri-urban food provisioning - focused on short supply chains as a means to reduce the environmental impact of the agro-food system. Research was carried out in seven European city-regions (Rotterdam (NL), Rome (IT), Ghent (BE), Vigo (ES), Bristol (UK), Zürich (CH) and Riga (LV) in collaboration with a diverse group of SMEs, in order to identify innovative models of urban and peri-urban food provisioning taking into consideration nutrient, water and waste management, and multifunctional use of urban and peri-urban space. The project also aimed to establish links between researchers, policymakers and SMEs through a process of dialogue, sharing of experiences, exchange of best practice and joint learning.

The project was able to establish multidisciplinary networks in the metropolitan areas to improve sustainable urban food planning and support the invention and implementation of relevant strategies.

The area between Rotterdam and The Hague includes open field and greenhouse vegetable growing, fish farming (aquaponics), mushroom growing, and others. It was, therefore, a great case study for the FOODMETRES - Food Planning and Innovation for Sustainable Metropolitan Regions - project. The project aimed to assess both the environmental and the socioeconomic impacts of food chains with regards to the spatial, logistical and resource dimensions of growing food, as well as food planning and governance. FOODMETRES was designed to combine quantitative and evidence-based research principles with qualitative and discursive methods to address the wider dimensions of food chains around metropolitan agro-systems.

FOODMETERS5 has developed a series of decision support tools allowing stakeholders from urban and peri-urban agriculture, food business, governance and civil society to enter a knowledge-driven debate on how to optimise the regional food supply of metropolitan areas around cities. One of the project’s novel contributions is to enable the visualisation of metropolitan supply and demand scenarios through interactive mapping tools, which help stakeholders to better understand the possibilities for increasing metropolitan food

5 http://cordis.europa.eu/result/rcn/181749_en.html
sufficiency.

**Impact of the projects**

When city officials from the Rotterdam Food Cluster were asked about the projects and their impact there seemed to be little awareness about them, or the solutions and added value they had brought to the Rotterdam metropolitan area.

However, it should be mentioned that the projects had mainly interacted with officials from the department of urban planning, which was, in the meantime, integrated to the department of economics, once the food priorities for the city had shifted from short supply chains to rather a strong focus on economic development. It should also be noted that it is often difficult for local authorities to see the connection between their collaboration with researchers and universities and their role in EU projects.

Officers from Rotterdam did mention a strong collaboration, which still continues, with the University of Wageningen, in order to set up the Food Cluster programme. The FOODMETRES project was also present during the Food Cluster start-up meeting in 2014 and during Milan World Expo 2015. Researchers and officers also collaborated to the development of a short publication called “Food cluster Rotterdam: a living lab for developing a metropolitan bioeconomy”\(^6\), as part of the FOODMETRES project.

The SUPURBFOOD project organised regional workshops, including one with the deputy mayor, where he acknowledged the relevance of urban agriculture initiatives. A stakeholder dialogue was also organised in cooperation with the City of Rotterdam and the Food Cluster team. The first part of the meeting was a presentation on the SUPURBFOOD project findings per work package and a discussion on the lessons learned. The second part of the meeting was a brainstorm on how to translate the Rotterdam experience into a possible entry for the World Expo in Milan 2015.

However, the strategy of the Food Cluster finally moved towards other types of priorities: the “Next Economy” agenda and the “Food for the Future” agenda. New priorities had emerged which required new research and data that were sought by ad hoc research tenders, financed by the municipality.

When interviewing the researchers from Wageningen university, they both mentioned that research dominated projects find it difficult to get the attention of the public. For example, in SUPURBFOOD different companies and SMEs were project partners and a few cities were supported with some travel budget, but the collaboration between the PhD researchers and those parties was often problematic, as the research and practical needs of those involved

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did not often coincide.

In Rotterdam, the role of the SUPURBFOOD project was to follow different local meetings, in particular, those of the food council, in order to advise on its activities. In addition, it sought to collaborate and create synergies between different type of actors, mainly farmers and citizens. The input provided by the researchers involved in the project probably created a lot of impact for those meetings, but from the perspective of the public the link with the project, and especially the EU ownership of the project, is not always clear.

Researchers also mentioned that it is difficult for a project of three years to create a strong impact at the local level, as the changes required often need local stakeholders to get involved and for local dynamics to develop, which takes time. It is mainly thanks to the continuous collaboration of different local actors with the research centres that allow EU projects to develop further impact at the local level.

After the end of the SUPURBFOOD project, the connections that it created became enablers for the CITY-COUNTRY master class⁷, one of the activities of the Food cluster, performed in collaboration with Wageningen University. Through a matchmaking programme, they help farmers and growers from the region to develop innovative business ideas and learn how to attune their products and services to the needs of the end consumer and increase their sales in the city.

It is also important to note how project results can continue beyond the duration of the project itself and outside of its “borders”. The Smart Food System Design (SFSD) is a legacy of the FOODMETRES project, which is now working in Amsterdam and Almere thanks to the cities' collaboration with Wageningen University. SFSD seeks to develop design proposals for integrated, sustainable and innovative food systems linking up metropolitan (city-region) with inner- and peri-urban environments. Building upon the principles of resource efficiency, circular economy, knowledge brokerage and inclusive forms of governance, the overall goal is to depict the associated technical, procedural and strategic services for a better understanding of both economic and public stakeholders interested - or already engaged - in Smart Food Systems at the level of urban areas and metropolitan regions. The guiding principles of the sustainable design combine (1) Metropolitan Foodscape Planning tool developed under the EU project FOODMETRES to identify potential regional food supply areas, (2) the methods of Landscape Character Assessment (LCA) asking stakeholders to share their vision of a place, and (3) the methodologies of system analysis addressing flows of things (resources, goods, people) between metropolitan locations, focussing on quantitative aspects of the food systems.

In the future, it has been advised to have projects which include all the different segments of society with a specific budget and role assigned to them. This should enable stronger

⁷ https://www.rotterdamfoodcluster.com/project/city-country-masterclass/?lang=en
collaborations of the different actors towards the project objectives, which is fundamental for food related activities.

**Budget dedicated to food activities in Rotterdam**

As for the other cases of this deliverable, the city officials had experienced some issues in retrieving data related to the budget that the city is investing in food related actions. The budget is divided among too many departments and different city portfolios, and so it is difficult to have a complete overview.

The budget for the Rotterdam Food Cluster is about 750,000 euros per year. It is financed by the department of economics, through local resources.

![Figure 3 the Rotterdam market hall](http://www.bluecity.nl/)

The budget is used for the many Food Cluster projects and excludes the internal cost for personal and office expenses. The budget is mainly used for research tenders, project management, developing projects, and for co-financing new initiatives that fit the ambition for the “Next Economy” roadmap.

Officers also mentioned that the relatively few ERDFs in Rotterdam are mainly dedicated to the promotion of start-ups and SMEs. One project related to food in the metropolitan areas, which was financed through ERDF money, is BLUECITY²: an old water park which has been converted into a research cluster, where new circular economy solutions are tested, among which some are related to food.

For the development of this case study the following people were interviewed:

- Nick van den Berg, Department of Economics, Rotterdam
- Sharon Janmaat-Bouw, Department of Economics, Rotterdam
- Amelia Oei, Department of Economics, Rotterdam
- Dr. Jan Willem van der Schans, WUR (University of Wageningen)
- Dr. Dirk Wascher, WUR (University of Wageningen)

It should be mentioned that unfortunately, it was not possible to interview the city officers from the urban planning department that had more actively been involved in the FOODMETRES and SUPURBFOOD projects.

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² [http://www.bluecity.nl/](http://www.bluecity.nl/)
LJUBLJANA: AN ATTENTION TO RURAL DEVELOPMENT AND URBAN GARDENS

Executive summary

Two thirds of the Municipality of Ljubljana's (MOL) land is agricultural. For this reason, its “Strategy for Rural Development 2014-2020”, although not a food strategy per se, is quite comprehensive. The empowerment of rural areas is also pursued from a socio-cultural perspective, beside the economic and political implications of targeting self-sufficiency in food. To a certain extent, the special attention given by politicians to the environmental issues have delayed the city officials’ focus on food. Accordingly, the administration, not having been directly involved in the project, overlooked the FOODMETRES research results - which identify a shorter food supply chain as a possible solution to the productive deficit of the MOL, and could have potentially provided the city with the “recipe” for food independence. The success of GREENSURGE, on the contrary, started with the vice-major’s personal commitment and the provision of a public site for the realisation of green infrastructures. After a first phase of field research, a large partnership among the MOL, universities and SMEs was set up, and then completed with the involvement of an NGO. While the contribution of urban gardening to social inclusion was given greater resonance by city officials, the research introduced new concepts from sustainability jargon into the Strategy - e.g. ecosystem services, participation in planning and governance.

While the city does not have a “food strategy” per se, the Municipality of Ljubljana (MOL) has approved a “Strategy for Rural Development 2014-2020”. The City Administration established the strategy as a prompt response to the new EU guidelines on rural development, addressing the same programming period. They are also in line with the national strategy for rural and agricultural development and the idea of a “green Slovenia” (Ljubljana was nominated European Green Capital of the EU in 2016).
The focus of the strategy on agriculture and food production is reflected in three strategic goals. According to the first one, the Strategy aims at increasing MOL self-sufficiency in food, promoting organic and integrated agriculture. Hence, the local dimension is at the heart of the plan for rural development, crucial for the city’s ambition to ensure enough quality food to pursue a “healthy” and improved food self-sufficiency.

The second goal relates to the empowerment of rural areas, and it wants them more accessible to outside actors and rural linkages. An integrated approach to the marketing of rural areas’ goods, could bear fruit, in terms of both more visibility and improved integration of primary sector activities with the other components of the food system, including urban areas.

The third and final goal targets the development of the social capital and the preservation of the municipality’s rural identity, as two-thirds of their land is classified as agricultural. Therefore, Ljubljana’s determination to place local products on its citizens’ tables can be attributed to a broader political project for generating employment and improving the conditions of the farmers. The opening of a farmers’ food shop in the city, for instance, both creates new jobs and strengthens agricultural holdings.9

This holistic perspective is pursued through two operational objectives: improving the supply of high-quality fruit and vegetables while ensuring that production methods remain respectful to the environment and ecosystems. These objectives imply the active involvement of the MOL from the very beginning, in the shaping of a favourable legislation and in connecting the various stakeholders.

The Strategy goes beyond the traditional view that food is not among the competences of a city, mainly because it is produced outside of city limits. On the contrary, the strategy’s holistic approach to rural development asks the MOL to lead the change, always having in mind the improvement of the quality of life and environmental protection.

The Department for Environmental Protection coordinated several initiatives aimed at constructing shorter, greener and more visible food supply chains. The programmes arise from concrete problems experienced by food producers, and by their attempts to resolve

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9 (M. Markovčič, personal communication, May 19, 2017)
them. The new business models that have emerged set a paradigm for rural development.

The identification of the local empowerment as a policy goal in the Strategy goes even further, and a special concern is devoted to the “enfranchisement” of the vulnerable of the society - women and youth, in particular. The MOL established appropriate training programs for them in the field - literally! - that often become networking opportunities, eventually leading to new cooperation and co-financing of work programmes (often participated by the MOL itself). In doing so, the Strategy supports quite a cultural change given that, in many cases, women and young people do not consider entrepreneurship as a viable option.

While the MOL is emerging as the main actor of food system innovation, benefiting from the cooperation of different departments - Environmental Protection, Real Estate, Culture and Youth - it also takes advantage of the strong partnership with other players. The Chamber of Agriculture and Forestry of Slovenia, the Regional Development Agency and a large group of territorial professional associations (fruit growers, gardeners, beekeepers, etc.) joined forces for the success of the Strategy.

The MOL also enhances the translocal dimension of the food related issues. An informal group of co-workers within the Department of Environmental Protection is working on many activities within the MUFPP Framework for Action -Ljubljana is, in fact, one of the MUFPP signatory cities, and is a very active partner: three of the City’s good practices regarding food were admitted to the opening edition of the Milan Pact Awards.

Many of the results delivered are very tangible in nature: ranging from local products’ vending machines to a public gardens system enabling citizens to become the producers of their own food, to the trademark “Ljubljana basket” for food locally produced and locally sold. Others were part of very comprehensive projects which fall within the various MUFPP categories. Besides the Strategy for Rural Development, the Municipality established public municipal markets and engaged itself in a public campaign against food waste (“Raise Your Voice Against Food Waste”), bringing together a range of different actors (the so-called “Third Sector”, Universities, international organisations, etc.) around a few simple actions (for instance, not throwing leftovers away). The interplay between the national and local level has produced a series of schemes for fruits and vegetables in schools (promoting sustainable diets and nutrition).

All of this is included in a broader knowledge exchange programme: the MOL cooperates with the Regional Development Agency to provide food self-sufficiency to the Ljubljana Urban Region and exchanges best practices with the neighbouring municipalities. Thus, a network is already there “on the line” and it could become an excellent starting point for joint projects making the most of the EU funding.

It is interesting to note that the Strategy refers to the methods of production, acknowledging the environmental challenges the world is facing nowadays. In particular, global warming is
addressed through the introduction of more resistant fruit and vegetable varieties and the monitoring- if not elimination - of the use of pesticides.

By setting ambitious targets, the MOL is aware that the changes will not bring to fruition overnight and recognises the need for long-term planning, closely monitored, year after year. The place of researchers from specialised centres and universities is “in the field”, on the testing ground, where they are ready to support the cities with useful (and up-to-date) information. Yet, the latter is not always fully exploited, as we will see below. This could limit the difficulties that may arise with the change of political majorities and the questioning of previous decisions which are likely to occur over time.

In the case of Slovenia, national government and local government play complementarily towards a more comprehensive approach to food policy. The “old” Slovenian Food and Nutrition Action Plan 2005-2010 (FNAP) was based on three pillars: food safety, balanced and protective nutrition and a sustainable food supply. While the actions taken in the first and third category delivered quite satisfactory results, the five-years period was too short to make major changes in dietary behaviour. Moreover, the chosen indicators constructed the categories as silos: at the same time, food safety scored “substantial” and the offer of healthy food safety was rated “minimal”. For this reason, a new and all-encompassing national strategy on Food, Nutrition & Physical Activity (FN&PA) was developed for the period 2015-2025. A special attention (and a whole chapter) was dedicated to the health sector. In fact, the access of all citizens to healthy eating got included in the programme’s mission, and it was pursued by reshaping the most common diets, introducing fruits and vegetables and stressing the importance of breakfast. The intention to enhance coordination and cooperation among different departments, to reach real policy synergies, was also shown in targeting the objective to reversing the trends in children’s obesity and elderly’s incapability. The strategy was integrated with other complementary projects - for instance, “Together for Health”, a very comprehensive primary health care intervention - and goals (Ljubljana was the European Green Capital in 2016).

**Overview of the EU funded projects**

Research first - but not solely. This best summarises the rationale behind the implementation of the FOODMETRES\(^\text{10}\) in Ljubljana. As for the Milan and Rotterdam cases, the mission of the project - “Food Planning and Innovation for Sustainable Metropolitan Regions” - is to understand how to feed today’s larger and most populous cities. The study indicates that a shorter food supply chain could be a possible solution to the productive deficit of the MOL (which has just 25% food self-sufficiency), the highest in the whole Ljubljana Urban Region (LUR). By some calculations, the Municipality will be able to achieve up to 50% self-sufficiency, if the potentials are fully exploited. That is if the political will is in place to do

\(^{10}\) “FOODMETRES – Food Planning and Innovation for Sustainable Metropolitan Regions” at [http://www.foodmetres-kp.eu/](http://www.foodmetres-kp.eu/)
The FOODMETRES research results - integrated with a Sustainability Impact Assessment conducted in cooperation with project partners from Berlin - suggest that the most necessary innovation for the city-region food system concerns urban gardening and family farming. Nonetheless, the intuitions of the producers often need the support of the City Administration as far as elaborated health regulations and specific marketing skills are also considered. The milk vending machines, established by the MOL based on farmers’ inputs represent a successful case study.

Furthermore, FOODMETRES researchers from the University of Ljubljana insisted that it could be a good thing for the city to read their report. Still, after some initiatives and attempts, such as the local markets in the Landscape Park of Ljubljana, they were not able to establish the same relationships with local policymakers (not involved from the beginning) or the same long-term cooperation as they have with local producers. However, the relations with the city administration are essential in order to make use of the project’s results - which potentially provide the city with the “recipe” for food independence - even after the end of the FP7 funding.

The success of the GREENSURGE project regarding green infrastructure (GI) - also started in the framework of the FP7 funding programme - it provides evidence that the personal commitment of the Vice-Mayor (and the Mayor’s signature) can make a concrete difference.

While being a research project, the University of Ljubljana involved the Municipality through its Vice-Mayor. The Municipality made a site available (the Livada site) for the realisation of the project as a “living lab”, which promised to tackle two enduring problems of the city: the existence of large green areas which have very high maintenance costs and eventually run at a loss, and the need for research on how to best use urban green infrastructure and eventually connecting the GI with urban food production and providing a social value.

From the sum of the two problems, GREENSURGE in Ljubljana found out a solution. After the research phase, a partnership between Universities, the municipality and private stakeholders has been set up. The municipality provided a green site (the Livada site) and the private partners were involved in the project providing expert support, construction material (forestry equipment), and its transportation. The University was responsible for

Figure 5 Urban gardens in Ljubljana
experimenting with a new participatory governance system of the Livada site. The University took a further step by bringing in the NGO Zavod Bob as an unofficial partner: thanks to their cooperation, a heterogeneous group of 15 young people was formed, made up by school dropouts and actual students. This group was responsible, under the guidance of the University, to design and implement a participatory planning of the site and it was turned into a public urban garden for food production and leisure. The project, therefore, also provided the opportunity to explore the contribution of urban gardening in relation to social inclusion. The MOL favoured this idea and is currently seeking a way to replicate the project in other sites.

**Impact of the projects**

From a city’s point of view, the FOODMETERS project was a semi-success: it provided the city with copious data, which the city could have used to back up its Strategy of Rural Development. On the other hand, there was insufficient involvement on the part of the city in the project, which therefore contributed in a very limited way to the overall food initiatives in the city. It must also be said that the purpose of the programme was for the Commission (funded through DG RTD) to comprehend such data, not really for the city to do a concrete use of the data. According to the FOODMETERS researchers, at the time of the project, city officials were more focused on dealing with issues such as rising traffic congestion and urban green spaces (Ljubljana was working to be elected as European Green Capital in 2016). The shift towards food only occurred later. Once again, having to deal with the fluctuations in the political will of local administration impeded the sustainability of the project. The timing of EU funded projects magnifies this risk: an extension of the average duration to five years could reduce the effect of a change in the political majority while helping the interaction between the researchers and the city.

The GREENSURGE project was different in this regard as researchers had involved the MOL through the Vice-Mayor. This partnership allowed proper research inputs as well as addressing the needs of the city.

Its impact was not limited to a theoretical framework where other players would take action; rather, it brought concrete results. Among these, there are enhancements in terms of food production in the city, produced in the community gardens by youngsters (the quantity is rather limited but its educational impact is quite impressive) and the experimentation of a new participatory planning process of the Livada site by young people, thus empowering social inclusion. Remarkably, one of the young people involved in the project is a dropout from school and has recently enrolled again. This girl, having participated in the planning of the site, its maintenance and in the gardening activities, chose to return to education, and has enrolled in an environmental protection school. The project, thus, is definitely in line

with Ljubljana’s aspiration to improve food self-sufficiency and urban agriculture, while involving vulnerable segments of the population.

The research results eventually matched the political will of the city’s government: the success of the project in engaging the general public was a great help. City officials were involved from the beginning, allowing researchers and city officials to join-up their needs and aspirations. While its social impact was given greater resonance by the city officials, the research introduced new concepts from sustainability jargon into the city’s development strategy. For instance, “ecosystem services” (i.e. the benefits human kind receives from all kinds of ecosystems) and “participation in planning and governance”. The GREENSURGE researchers credited EU funding for having given the initiative a lot of credibility.

According to the city officials, the strengths of the programme were based on the fieldwork of the researchers - which should be further encouraged and appraised by EU calls - and a strong network inside the Municipality connecting those who are involved in the food chain. The biggest limitation, instead, was time. In this case, the request is for more years, not less than five, for research results to “stick” to the political practices of a City.

In the end, Ljubljana made a case for the cities to lead the innovation of the food system. While one may be a leader, this does not imply that they are a one-man band. The GREENSURGE project demonstrated that both social and urban needs - as well as its long term strategic position on development - can be harmonised, and enhanced, by making use of the research findings. Large partnerships at the local level provide a platform for the projects, sharing the common goal or having a universal mission. Such factors will be favoured if EU fundings for R&I are further aligned with other EU funding streams. Such a configuration would also foster the interplay between local, national and international actors, having a multiplier effect on the project outcomes through knowledge exchange. The satisfaction of the cities’ additional needs, in terms of longer programs for stronger political support, is behind the success of the projects.

**Budget dedicated to food activities in Ljubljana**

As already mentioned, the City does not have a food strategy per se, but food related issues are taken into account in the comprehensive Strategy for Rural Development 2014-2020. For the year 2017, 145,700 euros have been allocated to Rural Development, while 32,000 euros are state-aid for knowledge transfer and information actions. Overall, the 2017 budget scheme accounts for 310,700 euros, and it is a combination of funds coming partly from the EU programmes and state initiatives, but mostly from Ljubljana’s city budget itself. Within the Municipality, apart from the Department of Environmental Protection, the Department for Pre-school Learning and Education (meals in kindergartens) and the one for Health and Social Security (lunches for pupils and elderly people in public canteens) dedicate part of their budget to food.
For this case study the following people were interviewed:

- Markovčič, High Adviser for Rural Development, Dept. for Environmental Protection, Section for Rural Development
- Goradz Maslo, Director of Dept. for Environmental Protection, Section for Rural Development
- Matjaž Glavan, Foodmetres, Case Study Leader, University of Ljubljana
- Rozalija Cvejić, Foodmetres, Case Study Leader, University of Ljubljana
- Marina Pintar, Foodmetres Researcher, University of Ljubljana
Executive summary

Gothenburg, the second largest city in Sweden, has been working on food since 2009, because of a strong political push due to environmental concerns. The municipality developed many activities related to food, especially focusing on land-use, as the municipality owns about 55-60% of the land surrounding the city.

Gothenburg has been involved in different EU funded projects, such as the project RETHINK, under FP7. The project had an average impact, allowing university researchers and municipality officers to initially get in contact and to now work together on a future strategy. More recently, Gothenburg was involved, as a partner, in the project Eco Based Forestry, a Climate KIC project (under H2020). This project is having positive impacts in the work of the municipality, since the city of Gothenburg is involved in the project and intends to co-establish a business plan at the end of the year, focusing on public-private solutions and partnerships. Finally, Gothenburg was a partner in a URBACT project: Sustainable food in urban communities. This URBACT thematic network involved ten European cities wishing to grow, deliver and enjoy more sustainable food. The action plan developed in this framework, for the exchange of knowledge between cities was the main strength and impact of the project, allowing the city to develop food activities even further and provide feedback for the future strategy.

The city of Gothenburg does not have a food strategy yet, but it is a work in progress. The work is the result of a strong political push coming from the city’s environment-related ambitions, as reported by Ulf Kamne, Deputy Mayor for urban planning and environment, and the policy officers working on this strategy. In 2012, the city of Gothenburg developed a political agenda for the environment, featuring goals that are connected to the Swedish national environmental objectives. In this agenda, 212 actions were decided and approved by the City Council in 2013. Many of these actions are related to food and will drive the environment policy of the city for the next 10 to 15 years. From here, the municipality began to develop a food strategy starting in December 2016. This strategy should be ready within the next two years.

Gothenburg will be focusing on three main challenges:
- the environmental impact of the production and consumption of food
Food in cities: study on innovation for a sustainable and healthy production, delivery and consumption of food in cities. 30-CE-0833121/00

- health
- food security

The strategy will aim to tackle these challenges, and to support this work, five focus areas have been identified:

- food production,
- food consumption,
- food deliveries and logistics,
- resource efficiency nutrient circulation, and
- water for food.

One of the goals of Gothenburg’s future strategy is to have a systemic and holistic approach to food, which would involve different city departments. For this purpose, several working groups made up of city officials, researchers, private companies or NGOs, were gathered to identify opportunities and obstacles. Put simply, the strategy will provide policy support to some of the work which is already taking place in the city. In the long-term, the ambition of the political level is to develop a 2030 food policy that will support the implementation of the strategy. There is a true political mission to increase the urban growing of food and available land use where people would be able to make a living from the lands. Sweden’s second largest city wants to keep on promoting food related activities and go even further and faster.

The Real Estate department of the city, which manages the peri-urban land owned by the municipality, is already doing a great deal in term of food, and there is already a lot of food innovation taking place.

Innovative and diverse food activities

In comparison with other European cities, Gothenburg’s work on food started quite early with local politicians beginning to seize the opportunity in 2009. The municipality of Gothenburg owns a lot of urban agricultural land, and most of it is not used. In the best cases, it is used for farming or leisure (such as horse riding).

Since 2009, the municipality has been trying to promote further land use for food-production “making it possible to take care of and develop urban agriculture and organic food-production”\(^{12}\) and encourage citizens to grow their own food. This was quite new for the Real Estate department in charge of this assignment. One of the biggest challenges that this initiative has had to face is the changing the mindsets to accept that land must not always be used to build. Today, citizens can rent land off the municipality through long term

\(^{12}\) Sustainable food in urban communities, Final thematic report p. 26, see annexes
contracts, and can then invest in “different kind of small scale urban farming”\textsuperscript{13}. To start this process, they can also apply to get some financial support from the city to begin their activities.

After this political decision, the second push towards developing food activities came from the project ‘\textit{Stadslandet}’. This rural-urban project is partly financed by the EU through the European Regional and Development Funds, partly financed by the city, and ran by the Business region Göteborg, the organisation responsible for business development for the city. The Real Estate department, in charge of managing the peri-urban land, is also involved in the project.

The project aims to develop a model for a broad urban development in the North East of the city, and to “\textit{find out if the population can and want to help develop North-eastern Gothenburg to a green neighbourhood where rural and urban areas are combined}”\textsuperscript{14}. The objectives are to identify several essential research questions, but also to undertake research-actions to investigate what can new models of collaboration and innovation for sustainable green development between the city and the countryside look like and, in particular, how it is possible to streamline the connections between food producer and consumers\textsuperscript{15}. Three main areas of work were identified:

- ecological;
- social;
- economic.

Different activities related to food have been developed within this project. Food actions and projects are strongly linked to the social and business agenda of the city, to reach benefits by overcoming the social differences in the city, “knowledge and social exchange, increasing the possibilities for employment” or “encouraging local production”\textsuperscript{16}.

This comes through different activities, for instance by the integration of foreigners through farming. The project allows the connection between young and skilled migrants willing to take over abandoned farms.

The ‘\textit{Stadslandet}’ project endorses close links between researchers and policy work within the city, but also close links between food activities and other urban activities, as social integration or health, and this is where it gets its strength.

\textsuperscript{13} \textit{Ibid} p. 9

\textsuperscript{14} \textit{Ibid} p. 20

\textsuperscript{15} Mistra Urban future, Rural Urban Gothenburg - Stadslandet  \url{https://www.youtube.com/watch?v=Al6n0k3YPyE}

\textsuperscript{16} Sustainable food in urban communities, \textit{op. cit.} p. 21
The city of Gothenburg is also quite advanced concerning their work on sustainable diets and nutrition. The municipality set the ambitious goal to serve 50% of organic food in public canteens by 2018. The administration of Lundby, part of the city, is leading the way by already serving almost 50% organic food\textsuperscript{17}. The municipality has already reached its goal to serve 100% organic meat. Similarly, the total amount of meat served decreased from 7% last year, as a result of awareness raising initiatives and the serving of vegetarian meals.

Several campaigns are also targeting citizens to take the opportunity to influence people’s habits towards more sustainable food choices.

Finally, the municipality is quite committed to working with other stakeholders on food activities. For example, Gothenburg took part in activities organised by the local NGO Change Maker, a “change agency”\textsuperscript{18} that developed several projects on food. Their latest project, Foodmaker\textsuperscript{19}, gathers a network of different actors working in the field of food: farmers, chefs, restaurants, food industries. The municipality came to one of the meetings and used this platform as a place to get new ideas and feedback on their work on the strategy. The city officers are willing to develop the strategy with a multi-stakeholder approach, so it can cover as wide a range as possible.

**Overview of the EU funded projects**

In addition to the *Stadslandet* project, promoted under the ERDF, Gothenburg has been involved in different projects: as a case study in the FP7 project RETHINK - Rethinking the link between farm modernisation, rural development and resilience in a world of increasing demands and finite resources, and as a full partner in the study financed under CLIMATE KIC (part of Horizon2020 budget). Gothenburg also made a lot of progress in its work on food thanks to the URBACT project “Sustainable food in urban communities”.

RETHINK, farm modernisation and rural resilience, is an EU project, funded through RURAGRI, an ERA-NET\textsuperscript{20} co-funded scheme supported by the European Commission under the FP7 research and innovation funding programme. The aim of the project is to rethink the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources, and to explore the meaning of agricultural

\textsuperscript{17} Creating Space for sustainable food systems in urban communities – practical approaches and examples for cities, URBACT handbook, p.47, \url{http://bit.ly/2sYNSFd}

\textsuperscript{18} Website: \url{http://changemaker.nu/about}

\textsuperscript{19} Website: \url{http://foodmaker.se/}

\textsuperscript{20} The objective of the ERA-NET scheme is to develop and strengthen the coordination of national and regional research programmes.
modernisation. The project counted fourteen partners, mainly universities, and thus fourteen case studies (one by each partner). The University of Gothenburg was one of the partners, and the researchers Gunilla Olsson and Anders Wästfelt conducted a case study on Gothenburg, which was the main deliverable of the project and was of direct interest to the city. The project covered different themes such as farming, wine growing, and in the case of Gothenburg, peri-urban production. The four core themes of the project, knowledge and learning, governance, resilience, prosperity, cut across the fourteen case studies.

The case study on Gothenburg, “Peri-urban agricultural transformations in Gothenburg”, focusses on the peri-urban land use owned by the municipality, and agricultural production. The case study tries to answer different research questions, such as knowing what kind of governance is needed for this peri-urban use, or how to involve other peri-urban municipalities. This report is available online in English and in Swedish21. One outcome of the project is the establishment of an urban food network. The network has developed a research platform for urban food activities where different organisations, NGOs, researchers and city officers collaborate. The project Stadslandet is also part of this network. Most of this thinking will be involved in the drafting of the food strategy. During the life time of the project, the city was not involved in the research. It was only at the end of the project that the researchers handed the final report to the municipality, and when they realised that this work perfectly matched the concerns of the city. Since then, the researchers and the city officers have kept a good relationship and developed a will to work together, improving each other’s work. It is obvious for the municipality that research is very important in supporting the policy work, and that a collaboration is only beneficial, as showcased through the Stadslandet project.

Climate KIC is one of three Knowledge and Innovation Communities (KICs) created in 2010 by the European Institute of Innovation and Technology (EIT). The EIT is an EU body whose mission is to create sustainable growth. Their project in Gothenburg focused on Agroforestry, one of the areas of work of the initiative. The Gothenburg based study “Climate smart eco-based agroforestry with green business models and social sustainability” is focusing on the growing urban demands for agriculture, urban and peri-urban farming and forestry produce and ecosystem values in a way that create green businesses.

The objective of the project is to link innovative models for ecosystem-based agroforestry as a key for new local strategies for sustainable interactive climate smart economic development. The project focuses on local production for the local market, to develop the local economy, social integration and development. Different and broad concepts are used, such as economic development, social security or integration. In a nutshell, this project aims

21 See online: http://bit.ly/2szFxhJ
to develop Gothenburg “as a test-bed for innovation for eco system based agroforestry”\textsuperscript{22}. Other deliverables are being developed, including workshops, a conference on Agroforestry in November 2017, and a business plan that should also be ready by November 2017. The city is, of course, involved in the development of the business plan.

In this project, the researcher and the city have close relationships, which is partly because the city is involved in the project as a partner. From the interviews emerged the common belief that it is crucial that the city officials are involved for them to have an ownership of the project and therefore make use of the results. The project would not have worked without the city as a partner. The city and the researchers will continue to work together even after the project ends, for instance on the food strategy, that will be created using feedback from the researchers and from the project itself. Another outcome of the project is a deal made between local food producers and restaurants, ensuring restaurants buy directly from the producers.

From May 2012 to April 2015, Gothenburg was a partner in the project \textit{Sustainable food in urban communities}, financed under the URBACT programme, which used ERDF budget. This URBACT thematic network involved ten European cities wishing to grow, deliver and enjoy more sustainable food. They were looking for joint, effective and sustainable solutions to develop low-carbon and resource-efficient urban food systems. The network focused on three themes:

- Growing: fruits and vegetables in the city, either in parks, gardens, on rooftops etc.
- Delivering: in a more sustainable way
- Enjoying: more sustainable food (like local products, seasonal food), products meeting environmental and sustainable criteria, preventing waste.

In this framework, each of the partner cities had to develop a local action plan\textsuperscript{23} for sustainable food for the city, as a deliverable of the project, including ongoing and upcoming activities undertaken by the city. This project was helpful to learn more about the city and what activities are taking place, and the redaction of an action plan helped to push further and complete the work of the municipality, and is valuable in the development of the future strategy. Moreover, thanks to this project, cities get to work with each other, to discuss their common challenges and find solutions together thanks to knowledge sharing. The translocalism of this type of project is very much appreciated by cities.

\textit{Impact of the projects}

The RETHINK project, now that it is completed, is giving precious input to the work of

\textsuperscript{22} Climate smart eco-based agroforestry with green business models and social sustainability, Climate KIC report, p. 10, see annexes

\textsuperscript{23} \textit{Göteborgs lokala handlingsplan för Hållbar mat}, in Swedish
Gothenburg. Efforts will be made to address the problems raised by the study in the future city strategy. The municipality generally recognises that research projects can, and should, give direct input into practical policy work. For instance, the draft food strategy for the city is given to researchers and other stakeholders such as farmers, NGOs, officials, and scientists for feedback in a co-creation way of working. Moreover, the local approach of the research is a key element for the success and sustainability of a project. For the municipal officers, it is essential for their work that some research on the local level and on the local conditions - research that they could not afford to make themselves - has been made. This way, the local food potential, the challenges, and in this case the question of land use are figured out professionally. It is then much easier to go to politicians with relevant figures and to find a solution to resolve the problems.

Nevertheless, the strategy would have been developed even without the EU funded project. Indeed, as we saw, this will to develop a food strategy comes from a political push and results from several years of work on the theme. But the politicians want to develop this food strategy with academia and to involve as many actors as possible. Research and political actions should be integrated, so the actions are based on solid ground research.

To be sustainable, a project should go through a holistic approach, especially in the area of food. When talking about food production, for example, in the framework of the project, the researchers realised that there were also links to biodiversity, culture, integration and social sustainability. A new type of research project is needed, with a quintuple approach, which means collaboration between researchers and other parts of society: the municipality, NGOs and actors working in the areas affected by the project. This could be farmers, food industries, waste agencies, migrants, schools etc. The platform MISTRA urban futures\textsuperscript{24} is one example of this new type of research activities which the city of Gothenburg is involved in. This science policy urban platform is a governmental organisation which supports a number of activities that could be research related. In this case, the researcher is no longer the only one formulating a research issue, this also comes from societal challenges. This platform is an interesting place where city officials can meet with researchers and exchange ideas, it is usually not very easy for these two worlds to meet. This platform has grown and now consists of five local interaction platforms in different cities (Malmö, Stockholm, Cape Town, Kisumu, Sheffield-Manchester), allowing mutual learning.

The URBACT project met the demand of the city for capacity building, knowledge sharing, learning and co-production with other cities, and also with actors at the local level. Indeed, the project allowed the municipality to create a network within the city itself, and to get in contact with stakeholders working in the food sector, like SMEs or NGOs, in particular, through the development of the local action plan. The participatory approach of the project worked quite well in Gothenburg. Local people should be also involved, like farmers or

\textsuperscript{24} Website: \url{http://www.mistraurbanfutures.org/en}
migrants. However, to get them on board, it is important that the project offers them some resources, in terms of time and funding, or in the form of money or lands, for example. Without this input, it is difficult to engage them. This has been the case in the URBACT project, and also in the Climate KIC one.

**Budget dedicated to food activities in Gothenburg**

The biggest part of the budget dedicated to food in Gothenburg comes from city taxes, which are complemented with a few sources from the EU funded projects. For example, the URBACT project brought 50,000 euros to the city to develop food activities in the framework of the project. Without the project, this work would have been quite expensive, and not every city can afford to develop it, hence the importance of such a project. The project Stadslandet is funded by the municipality to the amount of 18,928,14 SEK (1,944,863 euros), and by the European Union (ERDF) through the programme Utveckling Nordost, Swedish’s biggest EU programme for urban development, to the amount of 12,710,904 SEK (1,306,045 euros).

In general, it is quite difficult for the municipality to give a figure on the overall budget spent on food activities because they often come from different departments (Real Estate for urban gardening, Environment for the food strategy, Education for the meals in schools, etc.). The municipality sets a target for the budget, and then each department has to meet this target in their budget. For example, the politicians agreed on 50% share of organic food in municipal canteens. Then, the 10 city districts are given 11 million SEK (1,130,250 euros) to deal with the 50% target. Some smaller projects on the circular economy or urban farming are also ongoing in the city and mostly funded at the national level or by NGOs. The city's overall budget has a broad scope and does not flag food activities, which makes it difficult to get an overall figure.

The general opinion on funding for research is that it should be more aligned with other funds, as URBACT for example, where capacity-building and translocalism are key. The development of a local action plan in the framework of the URBACT project is also something that was much appreciated by the city: the project thus provided an impetus for action even after it ended.

For the development of this case study, the following people have been interviewed:

- Gunilla Almered Olsson, Department of Global Studies, University of Gothenburg, RETHINK project
- Lotta Silfver and Ulla Lundgren, Food policy in Gothenburg municipality
- Deputy Mayor Ulf Kamne, Urban Planning and Environment
- Per Myrén, Irene Poggi, NGO Changemaker
- Anna Ternell, COWI, Climate-KIC project on Agroforestry
- Petra Senthén, International Department, Gothenburg Municipality
- Mathilda Edlund, Environmental Strategist, Gothenburg Municipality
MILAN: SEEKING COOPERATION ACROSS DEPARTMENTS AND STAKEHOLDERS’ INVOLVEMENT

Executive summary

The EU DG DEVCO funded project “Food Smart Cities for Development” (2015-16) raised awareness about urban food policies and sustainable development among citizens and within the city administration. The project enabled the Municipality of Milan to develop a comprehensive strategy “to make the city more sustainable starting from food related issues”. The team playing among the Municipality and several and diverse stakeholders (belonging to the private sector, CSOs and research sector) has made the kick off successful: the involvement of private investors (such as Fondazione Cariplo) makes the project sustainable in the long term. The emphasis given to community buy-in and system thinking, and the preference for a multi-stakeholder approach, facilitates the establishment of a local and translocal network of cities around the world. Indeed, the Milan Urban Food Policy Pact - helping its 145 signatory cities to develop additional capacity through knowledge exchange - was also conceived during the 2015 “food momentum”. When addressing cities and their needs, the EU funds prepared Milan to play host to “business incubators”, experimenting with new and innovative solutions for the food-system of the future. OpenAgri, Milan’s “most innovative project”, is building upon the new awareness of the complementarity of research results and political will. Precisely because the city administration was not directly involved, the FOODMETRES project felt short of its potential to provide policymakers with comparable data and cognitive tools to guide their action.

The city of Milan headed up the Food Smart Cities for Development project, a DG DEVCO funded project, which ran from 2015 to 2016. The overall objective focused on aspects such as educational development and awareness raising, with an emphasis on topics of decentralised cooperation, food security and sustainable development. The project funding allowed Milan to undertake a one-year process to define its food strategy, with the support of Fondazione Cariplo, an Italian bank foundation which is active in local development and food related issues. This process was carried out within the context of Milan Expo 2015 - “Feeding the Planet, Energy for Life”, the universal exhibition dedicated to food and sustainability. The “Guiding Principles of the Milan Food Policy 2015-2020” (the Food Policy) centre on a comprehensive strategy on food for the city of Milan. It was presented in 2015 as a tool to support city government to make the city more sustainable starting from food
related issues.\textsuperscript{25}

The principles are the outcomes of this year-long process, which has been divided into two key phases: Phase 1. Comprehensive analysis of the city’s food system, Phase 2. Public Consultation with different stakeholders involved in food-related issues, such as farmers, CSOs, enterprises, researchers, city officials etc.

In the first phase, a “context analysis” of Milan’s food system was utilised. The results provided an overall assessment of the food cycle in Milan together with an overview of the various food-related policies implemented by the Municipality thus far and a precise mapping of the various stakeholders. The second phase consisted of carrying out an overview of the key findings attained during phase 1. These, in turn, were then called into (public) question and a public consultation was carried out. Approximately 1,000 stakeholders (city officials, universities and research centres, profit and non-profit companies, and ordinary citizens as well) gathered for town meetings and produced about 100 concrete proposals as well as actions for the food policy of the city. The strong commitment of the Municipality and the stakeholders - and an expert use of social media - helped the dissemination of the results, raising individual and public awareness about food related issues and sustainability. A very innovative approach, indeed, characterised the shift towards sustainability and the focus on food-related issues. The feedback and consensus which resulted from the various stakeholders involved during city hall meetings provided the outputs which were then incorporated into the city’s food strategy.

Finally, the follow-up to this work can be termed “Phase 3”. This included the concrete implementation of the principles that had taken shape over the course of the first two phases. It was an opportunity to establish firmer relations between the city’s administration and the business world (subsidiaries and private companies). Two examples of this “new deal” are: the project “Pasto Sano” (Healthy Meal), this promotes healthy eating habits during lunch breaks in bars and restaurants throughout Milan; and the joint programme between Distretto Agricolo Milanese (DAM, the Milan farming district) and Milano Ristorazione to have increasing amounts local products in the public canteens, through green public procurement.

Milan City Council’s approval of the Food Policy came together with the signing of the Milan Urban Food Policy Pact (MUFPP) by 46 cities from across the globe. It took the priorities set out by communities at the local level and expanded them to an international stage. The MUFPP has reached, as of June 2017, 145 signatory cities, representing more than 450 million inhabitants. The EU project Food Smart Cities for Development helped the Pact to grow, having provided four additional staff members to support the city administration’s action in

the period 2015-2016.

The ultimate goal of the Food Policy is to guarantee healthy food and drinking water for all citizens. In this sense, the strategy represents a breakthrough agreement as it provides local empowerment so as to make food a policy goal. The Food Policy promotes a sustainable food system together with raising consumer awareness and taking advantage of the latest (even experimental) scientific agri-food research, to tackle major environmental and social issues. Food waste is not alone in this regard.

System thinking has informed the broad and holistic approach adopted in the development of this strategy. Nonetheless, the city administration itself stressed the fact that they could not be the sole actor involved. The Milan Food Policy provides an innovative framework, one which uses co-creation in order to involve stakeholders from a range of sectors through an engagement mechanism which is long-term.

This process was granted by a dedicated city facilitator tasked with the identification of relevant stakeholders and the most appropriate means for their engagement. The emphasis revolves around community buy-in: Food Policy innovation involves aspects of social innovation. This articulated and inclusive process was possible due to the EU funds for the FSC4D project, which permitted funding and staff to organise and carry out the necessary work.

The Municipality has taken action in several areas covered by the MUFPP Framework. In fact, the Pact was conceived in conjunction with the efforts made to establish a local food policy, when the food was gaining momentum. Milano Ristorazione, a subsidiary in charge of public canteen catering, created sustainable diets plans for schoolchildren and the elderly, most often in areas with precarious social situations. Subsequently, it also integrated distinctive sustainability criteria with a view to providing school canteens with local rice which was cultivated by local peri-urban producers.

Another example can be seen with the “Zero Sprechi” (Zero Waste) project. This entailed the city administration engaging with the private sector (for instance, Assolombarda, the regional industrial federation) and universities (the Milan Polytechnic) in furtherance of combatting current food waste levels.

In both cases, vision and priorities of the Food Policy come about. In the first example, in particular, the first three priorities emerged: while ensuring access to healthy food (first priority), the Municipality’s action went further, promoting the sustainability of the food system (second) and a culture oriented to consumer awareness (third). In the second example, the fourth priority - fight against waste - is implemented through the fifth one - to support and promote scientific agri-food research.

In order to keep the machine well-oiled, a reform of the food governance system at the
Municipality level started at the beginning of this year and is currently ongoing. The Vice-Mayor has been recently (February 2017) appointed by the Mayor as food policy coordinator for the city. This move aimed at enhancing interdepartmental collaboration and coordination, while bringing food policy instances and requests - eventually vested with political strength - right into the Mayor’s office. Moreover, the Municipality is processing the applications for two new posts, possibly assigned by July, respectively as food policy officer and food communication officer. The goal of a more comprehensive policy implementation is ever closer. Political consensus around the issues addressed at the Municipality level is also growing at the national level. Last November, in fact, on the occasion of the first “Settimana della Cucina Italiana nel Mondo” (Week of the Italian Cuisine in the World), the Italian Minister of Agriculture, Maurizio Martina, defined food as a political issue, echoed by Prime Minister Paolo Gentiloni (who welcomed the era for kitchen-diplomacy).26 Aside from these large premises - which can still be read as hopeful signs for future developments - in Italy the notion of food sustainability has long been limited to the promotion of organic agriculture - and often linked to the struggle for extending the scope of the Made in Italy certificate. According to the Food Sustainability Index (developed by The Economist Intelligence Unit together with the Barilla Center for Food & Nutrition), Italy is now on the right path (the 6th best among the countries considered); in particular, a strong political response was given to food waste at the end-user level (restaurants, household, etc.), estimated at 5.1m tons every year. In fact, the 2016 “Gadda law” encourages firms to donate food to charities, loosening regulations (that is, cutting the red tape on food donations). At the same time, it promotes the use of so-called “doggy bags” (more appealingly renamed as “family bags”), aimed at triggering a cultural change. The very innovative approach, preferring incentives to punishments, makes the act an avant-garde law, most praised by non-profit organisations. However, Italy still has a lot of work to do to tackle the prevalence of over-nourishment, reflecting in high rates of obesity and overweight among children aged 12-18 years-old. In doing so, the country has to get to grips with the expanding agro-mafia, which jeopardises the progress made. In this context, the European Union took Italy’s side: benefiting from the EU funds available within the European School Fruits Scheme, Italy developed the national program “Frutta e Verdura nelle Scuole” (Fruits and Vegetables in the Schools). In implementing the EU regulation - whose main objective is to increase consumption of fruits and vegetables among children by durably increasing the share of those products in their diets27 - the Italian initiative focussed on raising the awareness of the children, providing them with the knowledge and the tools to become informed and demanding consumers in the future.

Nonetheless, the relative success of these single projects does not conceal the lack of an

26 The statements were made during a meeting in Rome to present the initiative. http://www.ansa.it/canalettaugusto/notizie/in_breve/2016/10/26/settimana-cucina-italiana-martina-cibo-fatto-politico_beed8f52-43b3-4be8-b2d6-b70bb269a363.html

overall food strategy at the national level: various issues are considered separately, often in a logic of emergency, and a systemic approach to food policy is still far off. In this sense, the over-arching experience of Milan can be a path to follow.

**Overview of the EU funded projects**

The European Union’s (EU) funds played a crucial role in Milan’s urban food policy innovation, contributing to the creation of an enabling environment for food systems which are increasingly sustainable and health-focused. Within this framework, Milan was entrusted with a pivotal role for the launch, promotion and implementation of the MUFPP. “Food Smart Cities for Development” (FSC4D)²⁸ is a EuropeAid project (DG DEVCO). It was initiated in 2015, the European Year for Development (EYD), within the frameworks of the DEAR Program, the EYD campaign and Milan Expo 2015. The overall objective of education development and awareness raising was geared towards topics such as decentralised cooperation, food security and sustainable development. Milan - which also co-financed the project - was the lead partner in a newly constituted network of Food Smart Cities, laying the groundwork for a coordinated urban food policy agenda and actions of raising awareness for European citizens.

The enhancement of citizens’ participation within the governance system is perhaps an emblematic characteristic of innovative ethos associated with the project, it helped to mould the concept of political ownership in relation to food related matters. The objective of the project is to make partners’ cities and CSOs participate in the debate regarding the post-2015 agenda²⁹. This highlights the project’s ambition to continue even after the official conclusion (in 2016). The relationships with the researchers were crucial to the success of the Food Smart Cities. It was cultivated from the outset with ad-hoc meetings, the creation of clusters and working groups. In fact, FSC4D delivered its results - in terms increasing awareness of the general public and politicians. This occurred on three different levels.

At the local level, the project laid the foundations for the Milan Food Policy itself, the overall food strategy of the Milan Municipality which is described above. This sprang from a series of meetings with a myriad of stakeholders. In particular, the 2015 Universal Exhibition - whose official theme was “Feeding the Planet, Energy for Life” - was itself hosted in Milan and acted as an amplifying tool for the programme.

With regards to the intermediate level of deliverables - regional level - this consisted of a set of guidelines vis-à-vis the drafting, development and implementation of local food related policies for the European participant cities and aimed to strengthen their role in the promotion of sustainable development. The other participant cities were: Barcelona, Bilbao,

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²⁸ “Food Smart Cities For Development” at [http://www.milanurbanfoodpolicypact.org/project/](http://www.milanurbanfoodpolicypact.org/project/)

²⁹ Ibid.
Bruges, Marseille, Turin and Utrecht. The municipalities of Dakar, London and Thessaloniki and the departments of Antioquia and Medellin were associated partners.

Lastly, the FSC4D instances were brought forward to the international stage: the launch of the Milan Urban Food Policy Pact was itself a result of the project funded by the DG DEVCO. The Pact is still growing today as 145 cities all around the world have signed it, representing over 450 million citizens. The Pact developed strategic partnerships with other global networks and institutions such as EUROCITIES, C40, FAO and participates to the EU Platform on food waste and losses. The Pact, in turn, triggered the creation of the Dakar Forum, the gathering of MUFPP West-African cities and established the MUFPP Annual Gathering and Mayors Summit, hosted every year by a different MUFPP signatory city.

Moreover, thanks to the FSC4D project which helped to launch the MUFPP - along with the support of Fondazione Cariplo - the city of Milan launches the Milan Pact Awards (MPA) on an annual basis so as to award signatory cities for their good food practices. The monetary awards are then used by the winning cities to disseminate their good practice to other signatory cities or to spread the Pact as a tool for other local governments who want to work on the sustainability of their urban food systems.

In all, cities play a central role as facilitators and enablers for the recognition of innovative practices stemming from private citizens. The idea is that cities play host to “business incubators” or “solutions labs” for experimenting with new solutions and innovative ideas for the food-system of the future. However, taking into account the very specific needs and wants of individual cities, as well as the potentials for synergies with the research, has yet to be fully explored.

The FP7 project “Food Planning and Innovation for Sustainable Metropolitan Regions” (FOODMETRES)30, funded by the DG RTD, led by the Wageningen University (NL), started along these lines. Indeed, it aimed to provide the cognitive tools which can enable the creation of guidelines and useful indicators for policymakers. An accurate analysis of the local food system features was designed to identify opportunities for innovation with food supply chains. Both current and potential equilibria in supply and demand relationships have been investigated and quantified. The outcome was very rich in terms of data, tools and indicators. However, it was very much ‘pure’ research. The authors established strong bonds with academic institutions and SMEs (in particular with the COLDIRETTI, the federation of Italian farmers), working towards a more holistic understanding of how cities feed themselves. In this case, however, the administration itself was not directly involved: a spatially explicit approach towards food planning31 was pursued without input from the

30 “FOODMETRES – Food Planning and Innovation for Sustainable Metropolitan Regions” at http://www.foodmetres-kp.eu/

31 Ibid.
Food in cities: study on innovation for a sustainable and healthy production, delivery and consumption of food in cities. 30-CE-0833121/0049

Spatial planning department of Milan’s Municipality. While the GAS (“Gruppi di Acquisto Solidale”, ethical purchasing groups) and other alternative chains were relatively successful, the attempt to systematise the research results, pursued through meetings with many distribution agents (for instance, Esselunga and Cortilia) failed in their objectives. The scarcity of resources available, after EU funds had dried up, was one of the primary causes.

Furthermore, cooperation with city-officials was sought in the H2020 “U-Turn” project funded by the DG RTD, which is still at an early stage (and running until 2018). Milan, together with Athens and London, was selected as a representative city to explore new models for urban food distribution and logistics with the aim of making them more efficient and environmental and cost-friendly. Milan has a model of collaborative logistics which was very attentive to issues surrounding the food miles. A fruitful discussion with market stakeholders - especially small-medium farmers in the peri-urban areas of Milan preceded the pilot actions. The objective was to assess possible difficulties in the implementation and to suggest new business models for consolidation schemes.

The project aims to design and implement a web-based collaboration platform which is able to address the asymmetry of information while providing a tool for creating logistics sharing partnerships between small food companies and retail outlets. A shorter chain - a theme which is increasingly gaining traction within city circles - is thought to facilitate the matching of supply and demand.

OpenAgri, a project won by the city of Milan in the first UIA cll, started in 2016 and financed by the DG REGIO, follows a similar trajectory. Praised as Milan’s “most innovative project” by the Mayor, it was co-financed by the Municipality and the European Regional Development Fund (ERDF). The total project budget is 6,245,000 euros, of which 3,040,000 euros is assigned to the Municipality of Milan. OpenAgri aims at setting up an “open innovation hub on peri-urban agriculture”, a tool for supporting the search for creative experimental solutions of young entrepreneurs and SMEs. In other words, it is meant to develop new skills for new jobs in peri-urban agriculture. The project relies on the collaboration among the city of Milan and three institutional partners - namely the Chamber of Commerce, the Foundation of the Polytechnic of Milan and Parco Tecnologico Padano (whose motto is “research becomes enterprise”) - and a wide and diverse network of stakeholders linked to the territory.

32 “U-Turn – New Model for Urban Food Transportation” at http://www.u-turn-project.eu/

33“OpenAgri Uia – New Skills for New Jobs in Periurban Agriculture” at http://www.comune.milano.it/wps/portal/ist/it/amministrazione/internazionali/Progetti/progetti_europei_in_corso/OpenAgri-Uia

34http://www.comune.milano.it/wps/portal/ist/it/amministrazione/internazionali/Progetti/progetti_europei_in_corso/OpenAgri-Uia
The evidence collected provides credence to Milan’s work: the agricultural area makes up more than 40% of the Metropolitan District, while at the same time Milan has a flourishing start-up scene (accounting for about 15% of national innovative start-ups). Selecting Porto di Mare, a former industrial area in the southern periphery of Milan, for the realisation of the hub, the Municipality also formulated the project as part of an integrated urban regeneration effort. The ultimate objective is to consolidate an integrated approach to food policy, merging the agricultural sector with economic innovation, cutting-edge technology, urban renovation and social inclusion, in particular addressing youth. The experimentation of new technologies is linked to various pilot projects at different stages of the food chain: transformation and processing of food, consumption and distribution and waste management. Thanks to the synergies between the city and the research sector led by the Polytechnic of Milan, the Milan State University and Parco Tecnologico Padano, the project fused territorial development and innovation, in pursuance of food policy and social inclusion goals.

Impact of the projects

“Now there’s much talk about food in Milan and FSC4D cities”. This, according to a chief municipal officer, is the key outcome of the FSC4D. More than 13,000 Milan citizens participated, to varying degrees, in the project. The increasing awareness of citizens in relation to sustainable development and the ever-broader and louder debate around food related issues has placed urban food policies at the forefront of decision makers’ political agendas. The resonance given by the EU funded project even attracted new financial partners (for instance, Fondazione Cariplo, became the main sponsor of the MUFPP).

The Milan Municipality’s internal governance mechanisms were adapted to the increasing demand for food policies and food innovation. The Vice Mayor has been appointed by the Mayor to coordinate Milan’s food policy, and new cross-department positions such as food policy officers are to be filled after an open competition. The idea of appointing the Vice Mayor for Food Policy is significant, as the Vice Mayor is collocated into the Mayor’s Office.
Food Policy of the city is at the core of the municipal administration, therefore responding to the need for better governance within the urban food system. Due to the fact that food is a cross-cutting theme, putting its governance in the hands of the Mayor’s office allows improved and comprehensive administration, dealing with the different city departments and streamlining food-actions, policies and setting up a comprehensive strategy.

Milan-led MUFPP added a translocal dimension: the participation of the cities to the Pact helps them to develop additional capacity and enhances knowledge exchange and cooperation between urban areas on food-related issues. From then on, the quantity and quality of food-related activities initiated by the partner cities have risen steeply. The existence of strong international partnerships, ready to cooperate towards a common goal, can be seen as a solid starting point for the development of future projects.

The project results would have been impossible to achieve without the EU (DG DEVCO) (at least initial funding). Indeed, the Municipality could have never afforded the staffing costs for 4/5 people dedicated full-time employees. The fact that the FSC4D project turned out to be a kick-off allowed for private investors (such as Fondazione Cariplo) to become involved, it also left the door open for joint actions at a later stage.

In this respect, the Municipality and the researchers involved in this study highlighted the need for longer-term projects and EU investments, especially when the aim is to combine research and policy activities in cities.

Indeed, five years are barely enough for combining research and political actions: after the first year/year and a half, the results should start to be tested and subsequently translated into pilot schemes. The latter proved essentials to attract investors and ensure the programme is sustainable in the long run.

A leading criticism of the FOODMETRES project relates to the fact that it’s based on “pure research”, with a limited impact in terms of practical use, communication and dissemination - especially with city officials - of the results obtained. The ultimate purpose of any fact-finding project was unaccomplished. FOODMETERS assessment show[n] that increasing food self-sufficiency will require substantial land use changes in order to balance demand and supply as well as higher resource efficiency35, these factors were not addressed to those who could undertake the necessary recommended actions.

The FOODMETRES project had the potential to fill a void: missing data - in particular, comparable data. It is one of the biggest issues for European cities trying to understand how to improve their food systems. Most city officials are not aware of any data regarding the

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percentage of food which is either imported or exported in Milan. Such data and information could be used as the basis for innovating food procurement methodologies and urban guidelines. FOODMETRES researchers also took note of a new paradigm for the sustainability of food systems of the city and novel tendencies in production and consumption of food in the city, rising to the challenge of an increasingly green, locally produced and vegetarian food demand by citizens.

Nonetheless, they could not draw the city administration’s attention to such occurrences. The decision to discuss the research results during a conference at the science museum turned out to be a somewhat self-referential.

On the other hand, a second project in which FOODMETRES is taking part demonstrates that the interaction with the city administration makes the difference. In that it has established a close cooperation with the Municipality of Milan and the Polytechnic University of Milan for implementing an evidence-based food system design in Porto di Mare.

A final assessment is impossible for the other two projects, OpenAgri and U-Turn, which are still in an embryonic stage. Nonetheless, the commitment of TRT – the consultancy firm which is running the U-Turn project – is to work closely with the key public and private actors. A strong multi-stakeholder partnership, and the ownership of the OpenAgri project by the Milan Municipality allows for a certain degree of optimism to connect research and innovation to concrete policy making in urban food related matters.

In conclusion, the use of Milan as a case-study illustrates the potential of the cities to be political driving forces for food system innovations. Nonetheless, a series of conditions need to be fulfilled. Cities’ actions must be guided and supported by the research – or rather by a research run in the field, and involving numerous stakeholders which span a plethora of sectors and different segment of civic society along with the key roles played by city administrations.

Successful projects facilitate network construction at the local level, but also translocally: municipal initiatives have a knock-on effect on the metropolitan district, the region, the state, and even the international community and this was demonstrated by the Milan Urban Food Policy Pact experience which is continually expanding. The peer-to-peer exchanges allow for the diffusion of good practices to be possible, and even affordable. For this reason, the long-term European investment in projects is specifically targeting urban food policy programmes, and rewarding the most comprehensive and participatory ones. This could help to address the uncertainty which results from the strong dependency on political will and, at the same time, incentivise the development of an overall strategy for the city.

**Budget dedicated to food activities in Milan**

The Municipality budget dedicated to food related projects running from 2015 onwards - and
in line with the principles of the Milan Food Policy is 3,809,467.96 euros. Most of it (3,044,467.96 euros) is covered by external financing. The proportions are more or less the same for both the FSC4D (DG DEVCO - EuropeAid) and the OpenAgri (DG REGIO - UIA) projects, whose overall values were respectively 691,280.46 euros and 3,040,000.00 euros (four times as much!). It is worth noting the fact that these figures only represent the actual city budget which does not include, for instance, the several “satellite activities” taking place in the city but handled through other funding channels. These costs were met for 4/5 by the EU funding programs, while the Municipality - which was the leading partner - integrated the remaining fifth. Significantly, the Municipality was not directly involved in the FOODMETRES (DG RTD - FP7) project, nor (yet) in the U-Turn (DG RTD - H2020) project.

For the development of this case study the following people have been interviewed:

- Cinzia Tegoni - Food Smart Cities for Development Project Manager
- Marco Mazziotti - Responsible for EU Affairs Office in Milan
- Franca Roiatti, Communication Officer for Food Smart Cities for Development
- Stefano Corsi - FOODMETRES Researcher
- Federica Monaco - FOODMETRES Researcher
- Dirk Washer, WUR University - FOODMETRES Coordinator
- Giuseppe Galli - U-Turn - TRT srl
LISBON: HEALTHY FOOD AND SOCIAL CONSIDERATIONS

Executive summary

Even without having a food strategy, the Lisbon municipality is very closely following the political direction that the national level is taking on food, and more precisely on healthy food and healthy diet, implementing its own projects to reach these goals. For the last few years, Lisbon has also been more and more involved in European funded projects, and more particularly into HORIZON2020 projects. Two projects are interesting in the framework of our study, focusing on food (mainly food waste re-use and prevention), URBAN - WASTE, urban strategies for waste management in tourist cities and FORCE - cities cooperating for a circular economy. These two projects, in which the city is involved as a full partner, have a high expected impact, especially to the improvements in cost, material and waste management hierarchy in Lisbon. The project will also look at the prevention of food waste in Lisbon, that will be reached thanks to the use of the different smart Apps developed by the two projects. These projects will help reduce waste production and raise awareness, but also help cities to share good practices with other local regions and build a strong network of stakeholders. Finally, even if officially dedicated to environmental objectives, both projects include a strong dimension of citizen engagement, co-creation and attention to social issues in line with the other activities of the city.

Lisbon does not have a food strategy but is involved in various different food related activities. What is interesting in the Lisbon case, is that the food innovations activities are a result of the national work on food.

On the national level, Portugal is quite involved in implementing food activities, in particular under the Portuguese Directorate-General of Health (DGS). In 2012, The National Programme for the Promotion of Healthy Eating (PNPAS) in Portugal was launched with the mission to “improve the nutritional status of the population, stimulating the physical and economic availability of healthy foods and creating conditions so that the population can

Figure 8 overview of Belém tower in Lisbon
value, appreciate and integrate them into their daily routines”36. This strategy, one of eight priority health programmes, aims at improving the nutritional habits of the population by encouraging the physical and economic availability of food. This programme aims to develop a healthy eating pattern and create the opportunity for citizens to value and follow them. The result will be an improvement in the nutritional status of citizens, and a direct impact on the prevention and control of the most prevalent diseases in the country (obesity, diabetes, cardiovascular diseases). On the other hand, it should also allow economic growth. “Using multi-sectoral collaboration, it represents the first comprehensive national strategy in the field of food and nutrition in Portugal after the first programmes launched in 2005 and 2007 by the Ministry of Health to fight obesity at national level”37. Indeed, different sectors are involved to reach these goals, including agriculture, environment, tourism, and even employment. The programme has five general objectives:

1. To increase knowledge about the food intake of the Portuguese population, and its determinants and consequences.
2. To modify the availability of certain foods (high in sugar, salt and fat) in schools, workplaces and public spaces, and to combat child obesity. In that sense, the government will integrate a sugar tax on soft drinks. This measure should raise 80 million euros for the public health service38
3. To inform and empower individuals on the purchase, preparation and storage of healthy food, especially within the most vulnerable groups.
4. To identify and promote cross-sectoral actions that encourage the consumption of foods of good nutritional quality in an articulate and integrated way with other sectors, namely agriculture, sport, environment, education, social security and local authorities.
5. To improve the qualifications and conduct of the different professionals who, owing to their roles, may influence nutritional knowledge, attitudes and behaviours.39

The city of Lisbon does not have a comprehensive food strategy as it is done at the national level. According to city officers involved in food activities, the Lisbon municipality is restricted to its inner-city boundaries, and a resilient approach, related to food supply, for example, would be an interesting idea, but feasible only in the framework of a regional planning or at a metropolitan scale.


39 Report the Portuguese National Programme, op. cit.
However, Lisbon is taking part in many different food related activities. For example, Lisbon City Council is developing a joint project, “Selo Saudável” (Healthy Food Seal) in cooperation with the national level, and more specifically with the Directorate-General of Health through its National Programme for the Promotion of Healthy Eating. This initiative was launched at the end of 2016 within the scope of health promotion and local health policies planning. This project aims to, through a public award, to encourage the institutions of social economy to implement a set of food and nutrition standards, ensuring a healthier diet, based on the Mediterranean food pattern. Self-catering, private institutions for Social Solidarity, associations and cooperatives, active in Lisbon, are able to join the project and to apply to receive the Healthy Food Seal. This seal enables participating entities to improve their ability to provide quality meals and to qualify their workers, but also to allow users to identify the companies providing healthy food choices. The seal is valid for one year. In the framework of the project, guidelines were developed to raise awareness on healthy food, with different ideas and healthy recipes available to anyone.

The city of Lisbon is also developing a project called “Hortas Urbanas”, a project of urban allotment gardens under the framework of an ecological and social inclusion target. The project today consists of 750 plots in 16 parks and is part of a new concept of Nature Based Solution green infrastructure, where citizens are directly involved in the management of land and food production. Unfortunately, the reduced quantities of land cannot allow consistent food supply. These gardens are mainly used as a tool for social inclusion, providing the possibility for people to manage their own land. Some workshops are organised to teach the citizens who won the public contest and are now renting a plot, how to farm organically.

The municipality also promotes projects of urban gardening in schools, to raise awareness among children on how food is produced and to teach them to be more sustainable. These projects are very much defended and supported by a political statement, as tools to overcome multiple challenges, thanks to new nature based solutions, social integration, and awareness raising.

Lastly, Lisbon has been showcased as a good practice example for its waste collection in the European Project Regions for recycling (R4R). Indeed, Lisbon implemented a door-to-door collection scheme in 2003 in households for paper/cardboard and packaging. Since 2005, organic waste collection in restaurants, hotels, markets and similar companies has also been in place. Lisbon is quite advanced in its waste management and chose to focus new efforts in its improvement, getting involved into two European projects dealing with food waste and circular cities.


Overview of the EU funded projects

In recent years, the municipality of Lisbon has been more and more involved in European projects, and especially in Horizon 2020 projects. Lisbon is, for example, a partner in the project Sharing cities⁴², an ambitious programme for a better, common approach to making smart cities a reality, fostering international collaboration between industry and cities. Last year, Lisbon municipality started a new Horizon 2020 project, RESCCUE⁴³, aiming to deliver a framework enabling city resilience assessment, planning and management and create new software tools, to integrate new knowledge related to the detailed water-centred modelling of strategic urban services performance into a comprehensive resilience platform.

Lisbon is also involved in two H2020 projects related to food activities, URBAN WASTE and FORCE.

URBAN WASTE - Urban strategies for waste management in tourist cities, is a H2020 project that started in April 2016 and will last for three years. This project aims at finding strategies that will help reduce the amount of municipalities’ food waste, but also create strategies to reuse and recycle waste.

The project integrated the circular economy model, to develop innovative initiatives, focusing on cities with a high level of tourism. The aim of this project is to combat the negative externality of tourism. Eleven cities and regions are supporting the project and acting as pilot cases: Florence, Nice, Syracuse, Copenhagen, Kavala, Santander, Nicosia, Ponta Delgada, Dubrovnik - Neretva county, Tenerife and Lisbon.

This project is focused on co-creation between local stakeholders, but also between public authorities, and presents aspects of applied research. The main deliverables from this project will come from mutual-learning. Within the framework of the project, an Action Plan on waste management, “with the aim of orienting and defining the actions needed to empower stakeholders and citizens towards a reduction of waste production and a better management of tourism waste and to promote this concept among decision makers”⁴⁴, will bring together different stakeholders in a mutual learning to consider cross-cutting questions and to together propose eco-innovative solutions.

The Plan will then be articulated into eleven implementation plans, one in each pilot city and region. Eleven mutual learning and capacity building events, one in each pilot, will take place throughout the project, on different themes. In Lisbon, the event will focus on the

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⁴³ RESCCUE website: [http://www.resccue.eu/](http://www.resccue.eu/)

“implementation of the eco-innovative waste management measures: barriers and good practices” to take place in December 2018. These events will include local stakeholders in workshops, experts and policymakers, but also other municipalities/regions interested in the theme. In terms of deliverables, Lisbon municipality will be developing a food waste tracking system for hotels and restaurants. This tool will simplify data collection and feedback for restaurants and hotels to be able to assess their food waste production.

The second European project on food in which Lisbon is involved is called FORCE - Cities cooperating FOR Circular Economy, a H2020 project that started in September 2016, and will last for four years.

“FORCE goal is to turn a source of pollution and a cost into an opportunity and value”⁴⁵. The aim of the project is to work towards circular economy, to transform waste into value. Four cities are involved in the projects, Copenhagen, Hamburg, Genoa and Lisbon.

These cities will develop four pilot projects, and each of them will focus on four different products and waste chains. Thus, Copenhagen will work on plastic waste, Hamburg on strategic metals, Genoa on wood waste, and Lisbon on food and bio-waste. Besides these themes, Lisbon’s work will focus on food waste reduction, reuse, new market opportunities and the use of organic fertilisers, and also on green jobs’ generation and green public procurement.

In its work on the waste chain of food, the capital of Portugal will develop specific deliverables: the municipality will implement an extended online network of stakeholders from the food value chain and make them commit to the circular economy principles. This network will involve donors (such as big companies, supermarkets, catering companies, municipal markets, hotels and restaurants, municipal canteens) and producers, redistributors and collectors, beneficiaries and recovery facilities. Lisbon will also develop an App Network Tool, supporting the online network to be used by all stakeholders. This App will help in Lisbon’s second task, namely campaigning to raise awareness on food waste

prevention, composting and bio-waste source separation. The main goal of this task will be to implement composting, and thus improve green waste quality, and to enlarge the D-t-D (door to door) kitchen waste collection in households to include restaurants and similar. The other cities partners will investigate the possibility to adapt the App developed by Lisbon for their own city context.

**Impacts of the projects**

The first thing to bear in mind concerning the analysis of the impacts of these two projects is that it is quite difficult to assess them because the two projects only recently started. The analysis here will instead focus on the expected impacts and forecast on the added value the project impact will create for the city.

The impacts are expected to be high for the city, especially in the improvements in cost, material and waste management hierarchy, but also for further stakeholder engagement. These projects will, for instance, have an important impact on the prevention of food waste, and a higher awareness will be reached thanks to the use of the different Apps developed throughout the two projects.

Reducing food waste - and more generally urban waste production - is one of the main outcomes expected in the city, and this would come through sharing good practices between hotels and restaurants from different cities for the prevention of food waste, especially in the framework of the project URBAN-WASTE.

One consequence will also be the improvement of the municipal waste management. Moreover, better food waste management will reduce landfill and the incineration of bio-waste. Accordingly, CO2 emissions will be reduced. Finally, more people in need will be able to benefit from food redistribution, supporting the Portuguese Zero Waste Movement\(^{46}\) that currently collects and redistributes around 1,200,000 meals. FORCE will improve the current state with an increase of 50%. Economically, the support of the state to social services can be reduced by 1.5 million euros. The savings in food waste would result in reducing CO2 emissions by around 1,260 tonnes every year. FORCE will also help strengthen the competitiveness of company profiles, due to a clear communication of the donors and their willingness to take a social responsibility.

Generally, the impacts of these projects will be quite high for Lisbon. Indeed, having the city as a partner here is one of the main reasons for this success. The municipality has the budget to take part in the project, and can then support the development of tools, in the framework of the projects, that will concretely contribute to a better waste management

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\(^{46}\) “Zero Waste Movement was created in 2011 with the objective of fixing the fact that 50,000 meals used to go straight in the bin every day, while 360,000 people went hungry in Portugal.” See more information: [http://bit.ly/2toHUCE](http://bit.ly/2toHUCE)
system, and will be used after the end of the project. Furthermore, these projects put the municipality in a network of local stakeholders, helping to create links between them, and providing the opportunity to work together, both now for the projects, and in the future, to co-create better and circular solutions for the city.

Finally, these two projects also created a network between the public authorities involved, allowing capacity building between cities (and regions in the case of the project URBAN WASTE) and exchange of good practices. Moreover, the expected impacts in the project FORCE will also be replicated in the other partner cities, permitting an even stronger impact of these projects.

**Budget dedicated to food activities in Lisbon**

As already experienced in the other case studies, it has been difficult to gather an overall budget of what Lisbon municipality is spending on food activities, since this budget covers different activities, in different sectors and departments.

The budget covering the cities activities in term of food, such as the urban gardening projects, is mostly coming from the municipality and from taxes, but some private sponsors also partly fund these projects. Some of the allotment gardens, for example, belong to supermarkets.

There is also some budget coming from the national level, and more precisely from the Directorate-General of Health through its National Programme for the Promotion of Healthy Eating, in the framework of the “Healthy Food Seal Project” (Selo Saudável). For the first year of the project, the municipality spent 13,290 euros in costs, divided into several areas: materials, training, show cooking and the development of a digital app. For now the pilot project will last one year, but there are intentions for the project to continue for a second year at a more extended level.

Finally, during these past years the involvement of the Lisbon municipality in European funded projects (mainly H2020 - some officers pointed out the difficulties for the city to see its proposal accepted in the framework of the LIFE calls) allowed the city to receive important funds (4,248,782.50 euros for URBAN WASTE and 11,308,117.50 euros for FORCE) to participate in new activities with lasting impacts.

For the development of this case study, the following people have been interviewed:

- Celeste Oliveira, Lisbon Municipality, URBAN - WASTE project
- Carla Tamagnini, Lisbon Municipality, FORCE project
- Duarte Mata, Lisbon Municipality, Green Structure and Energy Deputy Mayor’s Office
• Ana Domingues, Lisbon Municipality, Nutritionist, support to the group that promote urban agriculture in the city of Lisbon
• Graça Ribeiro, Lisbon Municipality
• Pedro Graça, Director PNPAS
• Sofia Sousa, PNPAS/DGS
Conclusion

Even if the five case studies were conducted by different researchers from the city of Milan and EUROCITIES, the results collected in the five cities all reinforced each other and went in a very similar direction: EU funded projects and especially, EU funds for research and innovation, have the potential to create a strong impact in cities and their development of food related activities and policies.

This is true even if the realisation of the role that cities play in food system is a relatively new area of research and therefore the number of projects looking at food and cities is relatively low.

However, in order to make sure that the project impact is maximised certain conditions in how the project is developed and in the city needs to be met.

Above all, political priorities and project objectives should be going in a similar direction. City officials and other relevant actors working on food activities in the city should be project partners or have at least some budget to be able to contribute to the project objectives and keep informed of the project results and activities.

Projects which have a more practical outcome are easier to communicate at local level even if the role of the project, and therefore of the EU, for local actors and citizens is not always easy to understand.

A better coordination between different sources of funding would help cities to further develop their policies in a coherent manner.