Urban and Peri-Urban Agriculture
BEST PRACTICE CATALOGUE

Interreg Mediterranean
Project co-financed by the European Regional Development Fund
MADRE
Introduction

6.3 billion people will live in urban areas by 2050. Although recognised as a major lever for the sustainability and competitiveness of metropolises, urban and peri-urban agriculture still suffers from a lack of consideration in public policies, preventing it from reaching a wider audience.

Luc J.A. Mougeot defines urban and peri-urban agriculture as “an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows and raises, processes and distributes a diversity of food and non-food products, (re-)using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area”.

According to researchers, the topic was re-introduced in the urban planning literature in the 1990s, rather for environmental and social considerations than for food security issues. Indeed, the sustainable development paradigm calls into question both the food supply systems and the urban sprawl phenomenon. Thus, urban and peri-urban agriculture becomes essential in the public policy agenda, as it meets the desire of multiple stakeholders for more proximity between City and Nature, between City and Agriculture, and between City and Food.

This Catalogue highlights the best practices identified in the 6 metropolises associated with MADRE, in terms of farmers’ innovation, social innovation, consumer innovation, academic research, territorial innovation and transnational innovation. It aims at:

• Mapping the key stakeholders of urban and peri-urban agriculture and connecting them at the Mediterranean level;
• Identifying the good practices developed and consolidating the knowledge gained;
• Evaluating the economic, environmental and social performance factors of urban and peri-urban agriculture;
• Promoting the most relevant and innovative practices and facilitating their replication and adaptation in other territories.

So, if you are an elected representative or technical staff of a local, metropolitan, regional or national authority or related body, a researcher working at the university or in an institute, a member of a consumer association, a community garden or a NGO active in agriculture preservation and environment protection, or last but not least, an urban or peri-urban farmer, an agri-food business owner or a related professional association representative, this Catalogue is for you!
Metropolitan Agriculture for Developing an innovative, sustainable and Responsible Economy

MADRE is a European territorial cooperation project (Interreg MED), which aims to change the metropolitan food supply model by capitalising on existing good practices, by empowering the different stakeholders in metropolitan and peri-urban agriculture, and by initiating a dynamic of transnational cooperation in the MED region.

Considered as an emerging phenomenon, metropolitan agriculture makes it possible to meet several urban challenges by contributing to food security, job creation, environmental quality or strengthening social ties and territorial solidarity between urban and rural areas. According to the FAO, a paradigm shift in both agricultural policies and urban planning is nevertheless required in order to ensure the optimal development and the sustainability of this activity.

The MADRE project capitalises on a set of knowledge, policies and pilot actions carried out on the topic and activate existing networks to enable effective transnational cooperation in the Mediterranean. The objectives are:

- To improve the innovation capacity of metropolitan agriculture in the Mediterranean territories;
- To identify and evaluate the economic, environmental and social performance factors of metropolitan agriculture;
- To identify and network metropolitan agriculture stakeholders;
- To assess the feasibility, conditions and means of creating a transnational cluster of actors in metropolitan agriculture.

The emergence of a transnational cluster is supported by a multidisciplinary partnership from 5 countries, each partner representing a flagship metropolitan area:

- **France**: AVITEM (Agency for Sustainable Mediterranean Cities and Territories), ANIMA Investment Network (cooperation platform for economic development in the Mediterranean), CIHEAM-IAMM (Mediterranean Agronomic Institute of Montpellier);
- **Italy**: Metropolitan City of Bologna;
- **Spain**: MedCities
- **Greece**: Aristotle University of Thessaloniki
- **Albania**: Agricultural University of Tirana

The project is carried out from February 2017 to July 2018 with a total budget of € 1,173,175, co-financed by the Interreg MED programme.
Montpellier Méditerranée Métropole

Montpellier Méditerranée Métropole (Montpellier3M) is located in the plain of Lower Languedoc in the Occitanie Region. Created in 2015, the metropolis comprises 31 municipalities and 434,101 inhabitants spread over 423 km². Due to its status of capital of the former Languedoc-Roussillon Region, recently merged with Midi-Pyrénées Region, Montpellier3M is an important economic, cultural and academic centre, which hosts 29,000 companies and 60,000 students in 2017. The area also has one of the most rapid demographic growth in France, and half of its population is below the age of 34. Despite positive trends, the unemployment rate remains high (16.7% of people between 15 and 60), in particular in the Hérault Department where one third of young people under 25 was unemployed in 2012.

Agricultural production and economic potential

In 2011, only 1% of employees in Montpellier3M were working in the agricultural sector, against 87% in services, 7% in construction and 6% in industry. The Hérault Department has more than 2,000 farmers (excluding wine growers), 73,000 ha of cultivated area (horticulture, fruit orchards, cereals, livestock, poultry) and some fish breeding businesses. Agricultural lands in the outskirts of Montpellier are progressively disappearing due to urban sprawl, creating a significant pressure on available agricultural land in the Metropolis and, to a greater extent, in the entire Occitanie Region. However, the rate of land artificialization is slowing down since the mid-2000s.

Metropolitan agriculture and regulations on land use

No specific laws govern urban and peri-urban agriculture in the BMA, except the ones defining and regulating land use at the regional, metropolitan and municipal levels. At municipal level, the Urban Municipal Plan sets the basis for the use and protection of agricultural areas and defines two levels of protection: ordinary agricultural land and protected agricultural land. Moreover, some organisms monitor specific areas with a special natural value. Among them, the Baix Llobregat Agricultural Park represents a new way of perceiving metropolitan agriculture, with 3.5 ha of protected land spread over 13 municipalities, a Special Protection Plan and a Development and Management Plan. Finally, the Catalan Council of Ecological Agriculture Production was created in 2001 with a regulatory mandate on technical norms for agro-ecological production and labelling.

Barcelona Metropolitan Area

The Barcelona Metropolitan Area (BMA) represents 2% of the Catalan region area while gathering 42.8% of its population. With 3.2 million inhabitants over 636 km², BMA is composed of the City of Barcelona and 35 adjacent municipalities. It is a diverse and heterogeneous territory where the seaside, rivers, coastal mountains and urban areas are difficulty connected. Lower-income areas are located mainly in the periphery along the Llobregat and Besos river valleys. Forests, parks, agricultural and natural areas make up 55% of the BMA surface, against 20% for residential areas.

Agricultural production and economic potential

Due to urbanization around the City of Barcelona, cropland has become increasingly fragmented and isolated. The most important agricultural area in terms of land and crop production values is the Llobregat lower valley and delta. Yet, partly because of the economic crisis, which led to an unemployment rate reaching 24.7% (52% for young people), interest in agriculture is rising in BMA, with an increase of graduate studies and training options despite the low revenues earned in the sector. Besides, global consumption of bio and/or “km 0” products has increased, leading the Barcelona Municipality to start planning for the transformation of its food distribution system and for a new policy based on the principle of food sovereignty.

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Metropolitan City of Bologna

The Metropolitan City of Bologna is a thriving urban area of more than 1 million inhabitants, whose population has been growing steadily over the past 15 years. It is the largest city of the Emilia-Romagna Region and a strategic hub for freight and human flows in Italy. The Metropolis is famous since the 17th century for its food industry and culinary arts. It is also a global reference for the cooperative movement, with a strong tradition of civic engagement, and one of the most virtuous cities in terms of environmental performance, with about 2,700 urban gardens.

Agricultural production and economic potential

Emilia-Romagna has been particularly resilient economically considering Italy’s economic crisis of the past ten years. Employment has been growing more than national average (+2.4% vs. 1.4%), mainly due to the tertiary and agriculture sector (+16%). Agriculture is the main driver of Bologna Metropolitan Area’s growth (+3.3%), ahead of industry (+2.6%) and services (+0.7%). Despite past decline in the number of farms (-24% in ten years), the trend is reversing, led by women and above all young farmers (9.3% increase in 2015). Besides agriculture, food and hospitality are driving forces for Metropolitan farming and food processing, leading to changes in consumers’ perceptions and practices. As an answer to their demand for quality and healthy products, organic farming is growing rapidly (+9.4% in 2015).

Metropolitan agriculture and regulations on land use

The Metropolitan Agriculture Project, part of the Metropolitan Strategic Plan, aims to direct, organize and strengthen the agricultural sector with a new focus on the urban-rural relationship. It identifies the peri-urban area as a buffer zone between urban and rural needs, with the promotion of typical and quality production at “km 0”, direct sales, development of a sustainable mobility system to connect the city with the nearby countryside, educational farms, etc. It also provides for the creation of the Bologna Agricultural District as a governance tool for the metropolitan agricultural sector and a single interlocutor to the public administration.
Thessaloniki Metropolitan Area

The Thessaloniki Metropolitan Area (TMA) is situated in Northern Greece, on Thermaikos Bay. It consists of 11 municipalities, with a total population of 1,012,297 inhabitants and a total area of 1,286 km². It is mainly composed of the Thessaloniki Urban Area (TUA), a contiguous densely built-up area around the municipality of Thessaloniki, the 2nd largest city in Greece. Thessaloniki has the largest youth and student population in the Balkan area. On the other hand, the labour force represents only 43.7% of total population of the TUA and more than 24% of inhabitants belong to vulnerable social groups, with the predominance of unemployment, obesity and malnutrition cases.

Agricultural production and economic potential

TMA is a dense area, with less than 3m² of green space per inhabitant, mostly abandoned by public authorities. It has been suffering from a prolonged economic recession that touched the entire country over the last decade, leading to severe austerity measures and a strong deterioration in people’s living conditions. As a result, the use of open spaces in and around cities for experimenting urban agriculture practices has been flourishing recently. The participation of the municipality of Thessaloniki in the Milan Urban Food Policy Pact and 100 Resilient Cities network shows local authorities’ willingness to incorporate urban agriculture in their food agenda, to deal with future challenges and to increase the number of dedicated allotments.

Metropolitan agriculture and regulations on land use

The General National Plan defined in Law no. 107/2014 «On the Planning and Development of the Territory» has the objective, among others, to balance the effects of residential systems and economic activities, and protect green spaces and other cultivable areas. The Integrated Inter-Sectoral Plan for Economic Zone Tirana-Durres 2015 is the only political instrument that explicitly addresses urban agriculture. It aims to stimulate pilot projects, create small parcels for individual urban agriculture and develop green and healthy districts. The Rural Development Strategy, which is one of the main legal documents related to agriculture at the national level, considers urban agriculture as a key element of the rural-urban partnership but doesn’t provide for any specific measure.

Tirana Metropolitan Area

Tirana is the capital and largest city of Albania. With 800,986 inhabitants in 2015 (expected to reach 1 million by 2025) spread over 1,110 km², it is also the largest political, economic, academic and cultural centre of the country. Since the 1990s, the city has been experiencing rapid demographic growth, driven by internal migratory flows. Former rural areas in the periphery have become urbanized, in particular those of Paskuqan, Kamëz and Kashar. They are therefore included in the territory covered by MADRE.

Agricultural production and economic potential

In 2015, 499,123 tons of field crops, 115,974 tons of vegetables and 15,447 tons of fruits were produced in the District of Tirana. The latter also has 114 milk processing units and 55 olive oil mills. Agriculture and food processing are a major economic sector in terms of businesses, jobs and exports. Yet, rural areas of the District contribute to only 7% of Tirana’s total food supply. Systematic supplies from other areas of Albania or imports from neighbouring countries (Greece, Macedonia and Italy) are required. For instance, 60% of fruits and vegetables sold year-round are imported from other countries. In response to urban expansion and the loss of productive land, personal gardens have emerged in peri-urban areas, where households grow fruits and vegetables for their own consumption.

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Methodology

Innovative dimension and multi-stakeholder approach

Urban and peri-urban agriculture can be considered as an innovation system, as defined by the World Bank: “a network of organisations, enterprises and individuals focused on bringing new products, new processes and new forms of organisation into economic use, together with the institutions and policies that affect their behaviour and performance”.

This approach highlights the linkages between the 4 categories of stakeholders involved in the development of urban and peri-urban agriculture:

- **Business sphere**: professional farmers occupied in market gardening, livestock farming, beekeeping, aquaculture, etc.; small and medium-sized enterprises processing local agricultural products in urban and peri-urban areas as well as wholesalers and retailers marketing local food produce sourced within the metropolitan area.
- **Academia and research**: universities, research centres and high schools focusing on agriculture, agronomics, environmental sciences, social sciences, urban planning, architecture, etc.
- **Civil society**: citizen-consumers, consumer associations, community garden associations, urban gardeners, households that grow fruits and vegetables, have poultry houses or beehives in their private garden, other associations involved in the development of metropolitan agriculture, etc.
- **Public authorities**: decision-makers and technical staff of local, intercommunal, provincial and regional authorities and their bodies in metropolitan areas, as well as territorial divisions of national administrations.

Assessment methodology

Local partners collected from one to five good practices for their metropolis for the 6 innovation areas of urban and peri-urban agriculture identified by MADRE and defined in the next pages: farmers’ innovation, social innovation, consumer innovation, academic research, territorial innovation and transnational innovation.

The contribution of a good practice to the 8 challenges defined opposite was assessed first by the initiative leader or the local partner then by ANIMA. For this second assessment, the context in which the initiative was introduced, the local challenges and the stakeholders involved have also be taken into account. The final assessment is the average between the two ratings. It is displayed as a spider chart to allow a visual depiction of the overall contribution of the good practice to the various challenges.

The contribution of the practice to each challenge received a rate of 0 for no contribution, 1 for a low contribution, 2 for a medium contribution and 3 for a high contribution. For challenge 8, Synergies, the rating takes into account the number of stakeholder categories (defined above) involved in the good practice: 0 for one stakeholder category only (the initiative leader), 1 for 2 stakeholder categories (the initiative leader and at least another actor belonging to a different stakeholder category), 2 for 3 stakeholder categories and 3 if the 4 stakeholder categories are represented.

This Catalogue promotes a balanced selection of the best practices collected from the 6 MADRE metropolises for the 6 innovation areas of urban and peri-urban agriculture to show the variety of solutions found to very diverse local contexts. Selected best practices will also be uploaded in the MADRE Digital Platform, together with the other validated best practices.

8 key challenges

The MADRE project has identified 8 challenges that urban and peri-urban agriculture should meet:

1. **Job creation**, in the areas of farming, food processing, marketing, logistics, garden animation, etc. Urban and peri-urban agriculture should be attractive for young people to ensure generational transmission. It could also act as a buffer against poverty in suburban areas.

2. **Social inclusion**: initiatives should involve large communities without discrimination as to gender, age, social or ethnic backgrounds. They can also facilitate the social integration of vulnerable population groups.

3. **Educational**: health and nutritional benefits of urban and peri-urban agriculture is a good way to educate children, young people and the general public to environmental protection and healthy food as well as to ensure food safety by supplying fresh and healthy products to all consumers.

4. **Quality upgrading and value creation**: organic agriculture, permaculture and agroecology are privileged techniques that upgrade the quality of the food produced. Quality labelling is a way to recognize these efforts. It brings along a higher value within the local food chain. Direct selling and short circuits provides a higher share of this value to farmers and/or consumers.

5. **Organisational benefits**: actors can develop collaborative business models where each of them has fair shares of the collective value created. For example, they can share equipment or services or market their produce together through a collective outlet, a website, etc.

6. **Territorial integrity and land management**: agriculture should be preserved in peri-urban areas and reintroduced as much as possible in urban areas even if, on the one side, land prices are too high for the installation of farming activities without public support and, on the other side, speculation on land would rise land prices in the villages surrounding the city and push farmers out of their main economic activity.

7. **Environmental benefits**: techniques applied in organic agriculture, permaculture and agroecology are friendly to nature and the environment. Urban and peri-urban agriculture should also develop innovative organisational patterns to optimise the transportation of products and reduce carbon footprints. Concrete measures for the minimisation, treatment, recovery and disposal of waste should also be taken.

8. **Synergies**: cooperation between public authorities, academia, private sector and civil society is encouraged, as it can generate synergies and foster sustainable development.
Farmers’ innovation

Farmers’ innovation is based on the concept that farmers have the capacity to innovate, experiment and adapt. They are viewed as innovators themselves rather than implementers of innovation. QUNO (2015) defines small-scale farmer innovation systems as “social phenomena in which individuals and communities in a specific locality share and adapt local knowledge, integrate scientific knowledge, and develop better ways of managing resources and overcome local challenges”. It is the latter meaning that is being used here.

Farmers’ innovation can be of technological, marketing or organisational nature.

The main aim of technological innovation in urban and peri-urban agriculture is to optimise the use of agricultural inputs such as land, water, energy, fertilisers and seeds following the 3 principles of the circular economy: reducing, reusing and recycling. Examples of technological innovations are numerous: organic agriculture, integrated agricultural systems, permaculture and agroecology, biodynamic agriculture, reuse techniques of wastewater, exploitation of biomass from cultivated areas, hydroponics (use of mineral nutrient solutions to feed the plants in water, without soil), aquaponics (growing crops and fish together in a recirculating water system).

On the other hand, marketing innovation aims to differentiate and value high quality products and make them available to a wide consumer base. Examples include the creation of direct selling websites, roadside stands, U-picking, community supported agriculture initiatives like the French AMAP, food drives, labels, etc.

Finally, organisational innovation is reflected in farmers’ involvement in cooperative actions and networking initiatives, and the pooling of resources, services and distribution channels. It can take the form of cooperatives, farmers’ associations or clusters connecting farmers to processors, distributors and consumers.

You will find a selection of 6 best practices of urban and peri-urban farmers’ innovation in the MADRE metropolises in the following pages.
**Organic Dining Rooms**

**SINCE OCTOBER 2013**

A study conducted in 2010 showed that only 40 out of the 2,800 schools in Catalonia had an organic canteen. However, most of them valued their service positively without any consideration as to where and how the food was produced, whether it was appropriate for children’s needs, or its degree of sustainability. In October 2013, some food, nutrition and education professionals decided to found Menjadors Ecològics with the objective of introducing more healthy, educational and sustainable models in school canteens.

**Legal framework & Budget**

Menjadors Ecològics (Organic Dining Rooms) is a non-profit association. It has a volunteer Board of Directors, which works with 2 freelancers on a regular basis and 4 others more occasionally. The annual budget is around €35,000. The main sources of funding are voluntary contributions by people, companies or organisations (such as the Carasso Foundation) and the services provided. In 2014, a crowd-funding was carried out for the design of the website, the introduction of the association and an interactive map of participating schools.

**Activities**

Menjadors Ecològics provides integrated advice and support to canteens, including a diagnosis of the current service and a feasibility study of the organic dining service, support in the design and use of an organic school garden, review of menus or proposal of healthy menus for the different seasons, and advice on the assembly of a new kitchen or the adaptation of the existing one. The association also offers services focused on facilitating the change process for all parties involved: audits, courses, workshops and talks. Finally, it implements policy advocacy activities to encourage new regulations and procedures that favour local and organic products in school canteens.

**Innovation & Outcomes**

The main innovation of this initiative is considering schools as an essential link in the agri-food chain. Making school canteens more sustainable is important not only to better feed and educate children, but also to transform the whole food system. The first 4 years of existence of the association have seen a rapid development of organic canteens state-wide. The association supported this process in many cities of Catalonia (Barcelona, Mataró, Mollet del Vallès, etc.) and the rest of Spain.

**Main obstacles & Next steps**

Since the association’s scope is state-wide, any municipality in Spain could be a suitable future location. It aims at systematising its experience to facilitate future processes of canteen transformation. 2020 will be a crucial date since it will be the last year of for the association’s flagship project, Menú2020. It will be the opportunity to make a more comprehensive assessment of its achievements.

**Stakeholders**

- Local producers, most of them small-sized, in organic farming and close to schools
- Companies managing school canteens
- Paediatricians and nutritionists, who validate the menus
- Public and private schools, their staff, students and their parents
- NGOs involved in food sovereignty
- City councils and regional authorities

**Objectives**

- Providing support and training to all the parties involved in the process of transforming school canteens
- Promoting direct sourcing from local producers to ensure their continuity, favour the establishment of new producers and reduce transportation
- Prioritising the daily consumption of seasonal vegetables, a balance between animal and vegetable proteins, and the inclusion of all the produce variety of the area
- Accompanying children all through the lunch time

**Contact details**

**Nani Moré Ramón**
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**Location**
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**Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture**

1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
4. Quality upgrading and value creation
5. Organisational benefits
6. Territorial integrity/land management
7. Environmental benefits
8. Synergies

More on:
www.menjarosecològics.cat

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www.menjarosecològics.cat
Terracoopa

Terracoopa started in 2009 as a joint initiative between ADEAR LR and CREALHEAD to support job creation related to organic farming and short marketing channels. In 2010, the Montpellier Agglomeration offered them a 10 ha plot of land in the Domaine de Viviers for the installation of farmers in market gardening mainly. The cooperative was founded in December 2011 and plots were distributed to 8 new farmers aged from 30 to 50, including 5 women. Today, Terracoopa serves around 40 farmers.

Contact details

Joseph Blanc
Founder and Manager of Terracoopa
email: contact@terracoopa.com

Location
Pôle REALIS, 710 rue Favre de Saint Castor CS 17406, 34184 Montpellier, France

Stakeholders

ADEAR LR - Association for the development of agricultural and rural employment in the Languedoc-Roussillon region
CREALHEAD - Cooperative of independent entrepreneurs of Montpellier
Member entrepreneurs and farmers
Montpellier3M, Regional body of the Ministry of Agriculture (DRAAF), Occitanie Region

Objectives

- Developing local agriculture and creating jobs in sustainable farming in rural and peri-urban areas
- Securing vocational retraining and installation paths
- Renewing collective and cooperative work in agriculture
- Encouraging new forms of territorial governance

Legal framework & Budget

Terracoopa is an entrepreneurial cooperative based on the principle “1 member = 1 vote”. It has approximately 40 members and one salaried worker. Each entrepreneur is an associate and has the CAPE status (contract to support business projects) granted on a yearly basis and renewed only three times.

Afterwards, the beneficiary has to buy or rent a land and create his/her own farm. An initial investment of € 80,000 was needed to develop the agricultural test area. The annual operating budget is around € 100,000. Associate farmers pay 10% of their annual revenue to Terracoopa.

Activities

As an agricultural test area, Terracoopa supports new farmers in developing their activity in a responsible and autonomous way, over a limited time period, within a framework that limits risk taking. Farmers can evaluate their project and ability to carry it out outside the agricultural test area. An agricultural engineer supervises activities at the Domaine de Viviers. In addition, Terracoopa offers specific services to all projects related to organic farming, urban and peri-urban agriculture, local food supply, landscape, water management, environmental protection, etc.

Innovation & Outcomes

In 2015, Terracoopa received the Social Innovation Award of the Grand Prize for Solidarity Finance. Its innovative management model provides farmers with a double status, entrepreneur and employee, which gives them social rights (retirement pension, unemployment insurance) and limits risk-taking. This model also enables the pooling of resources for members (administrative support, means of production). Finally, the allocation of land to agricultural test areas using mainly organic and agro-ecological techniques had a direct and visible impact on the environment and biodiversity.

Main obstacles & Next steps

The main obstacle for Terracoopa is the fierce competition for land in the peri-urban context, either from non-agricultural uses or from capital intensive agriculture. It is particularly difficult to find land with on-site housing possibilities for farmers. The main development perspective is to replicate the model in another location. There is on-going search for land for rent. Terracoopa is also thinking on ways to facilitate farmers’ marketing activities, especially under the Terracoopa brand.

More on:
www.terracoopa.net
Chez les Producteurs

This collective outlet was born in 2015 from the minds of farmers from the Aix Marseille Provence Metropolis, with the support of CETA Pays d’Aubagne (Centre for Agricultural Technical Studies). After one year of continuous work of the farmers, and thanks to the support of local authorities and CETA to launch a market research study and look for funding, the collective outlet was opened in Aubagne. Today, it brings together 26 local producers who manage it themselves.

Contact details

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Bruno Knipping
President of the Association Chez les Producteurs
e-mail: bruno.knipping@yahoo.fr

Location
RD96, 1500 Route de Napollon, Aubagne, France

Opening hours
Tuesday to Saturday 14:30 - 19:00

Stakeholders

- 26 local farmers (10 women, 16 men), who sell their own production
- CETA Pays d’Aubagne, as a supporting partner
- Public authorities: Aix Marseille Provence Metropolis, Bouches-du-Rhone Department, SUD Region

Objectives

- Removing intermediaries to maximise farmers’ revenues
- Promoting short-circuits to generalise the consumption of local seasonal food
- Supporting the transition towards organic farming through a quality and ethics charter
- Organising farmers to mutualise resources, reduce costs and enhance visibility
- Encouraging the setting up of new farmers in the area

Legal framework & Budget
An association was created in 2016, chaired by Bruno Knipping, an organic market gardener from Aubagne. It received grants worth € 15,000 from Aix Marseille Provence Metropole, SUD Region and Bouches-du-Rhône Department to start the project. Today, it works autonomously. A portion of each producer’s sales is used to pay the rent, bank charges and the 2 employees’ wages.

Activities

Chez Les Producteurs is a collective outlet managed by farmers, with the support of 2 employees. It offers a wide range of products, all organic or environmentally friendly: fruits and vegetables, fish and meat, sheep and goat dairy products, wine, beer or bread. They are sold at farm-gate prices by an external employee, with at least one farmer every day. Most producers belong to the “Jardins du Pays d’Aubagne” brand. It contributes to democratising the consumption of local, seasonal and quality food through direct contact between consumers and producers as well as awareness campaigns. The outlet also has a social role to strengthen the local community of farmers.

Innovation & Outcomes

Thanks to cooperation and public support, local farmers have developed a new model for food distribution that combines economic values with a collective dimension. Farmers’ self-organisation, with steady support and supervision of CETA Pays d’Aubagne, has generated yearly revenues five times higher than expected, attracting more and more producers (from 16 to 26 today).

Main obstacles & Next steps

Difficulties encountered in collective organisation and management are overcome by increased solidarity and public support to farmers. New considerations on the economic model aim to further reduce the portion deducted from each producers’ sales. To meet the growing demand for processed food and reduce food waste, CETA Pays d’Aubagne and some farmers (members and non-members of the collective outlet) are also working on the development of a collective processing workshop.

More on:
http://jardinsdupaysdaubagne.com/producteur/chez-les-producteurs

1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
4. Quality upgrading and value creation
5. Organisational benefits
6. Territorial integrity/land management
7. Environmental benefits
8. Synergies
Campi Aperti

Campi Aperti was launched in 2007 to raise awareness on the high quality of local organic farming networks compared to the food industry and build a strong movement for food sovereignty, based on a long-lasting and trusting relationship between responsible producers and consumers.

Stakeholders
- About 82 member farmers who produce with organic and biodynamic methods and sell their products on Campi Aperti’s markets
- Local associations and social centres which host Campi Aperti’s markets (Vag61, Xm24, Làbas)
- Consumers who buy their food at Campi Aperti’s markets
- Regional Ethic Finance Cooperative MAG6
- Municipality of Bologna, which supported the opening of a new market in the city center

Objectives
- Creating favourable conditions for organic farmers, including marginalised ones, to sell their products in local markets
- Developing food quality and short circuits to promote a sustainable, collaborative and solidarity-based economy
- Raising the awareness of consumers and citizens on the benefits of a seasonal diet and organic products

Legal framework & Budget
Campi Aperti is an association which brings together organic and biodynamic farmers. Their markets are often hosted by local associations and social centres. At first, they were self-governed and independent of public authorities. Due to their success, they were officially legalized by the Bologna Municipality in 2010. Since then, some restrictions have been imposed, based on safety and hygiene requirements.

Activities
Campi Aperti sets up and manages farmers’ markets in Bologna to facilitate the direct sale of food from its members to citizens. About 82 producers and many citizens attend the 6 markets organised every week in various locations in Bologna. The association formed a multi-stakeholder network that allows to organise markets easily, to mutualise and shorten marketing channels, thereby reducing logistic costs. It also enabled the adoption of concrete measures for recycling agricultural and food-processing waste. In addition, Campi Aperti is leading the nationwide communication campaign ‘Geniune Clan-destino’ to fight the restrictions and constraints imposed to small farmers by the Italian law.

Innovation & Outcomes
Based on a collaborative business model, Campi Aperti established a participatory guarantee system for food products. Farmers and consumers are involved in the selection and supervision of members. They visit new candidates to assess their farming techniques, employment methods and personal skills. Beyond this system, the association promotes a new self-organisation model based on a social and collaborative economy (‘wheat’ project). As for product innovation, Campi Aperti supports biodynamic farming and seed conservation.

Main obstacles & Next steps
Campi Aperti is a fully sustainable initiative. Environmental sustainability is its first aim. Economic and social sustainability is ensured through a collaborative business model and the reduction of products prices allowed by direct sales. Next steps are to expand the initiative and the advocacy for food sovereignty in other areas.

Contact details
- **Domenico Fantini**
  Coordinator of the Association Campi Aperti
  e-mail: info@campiaperti.org
- **Opening hours**
  17:30 - 21:00 (Summer) / 17:00 - 20:30 (Winter)
- **Location**
  Various locations in Bologna: Piazza Scaravilli and via Marzabotto (Monday), Vag61 (Tuesday), Làbas (Wednesday), Xm24 (Thursday), Savena (Friday)

More on: www.campiaperti.org
MIA Organic

Since April 2015

MIA Organic (Made In Albania) was launched in April 2015. The business idea came out of the experience abroad of three Albanian friends, Anisa, Eniada and Altin, who were finishing their Master studies in Milano. Remembering the flavours of natural products and home-made food in their childhood, they realised that they could not find these tastes in Italy and not any more in Albania either. So, they decided to start an organic farming business and to sell their products to Albanian consumers.

Contact details

Anisa
Founder of MIA Organic
E-mail: info@mail.al

Location
Rruga Papa Gjon Pali II, Tirana, Albania

Stakeholders

- 30 farmers from the Tirana Metropolitan Area and the rest of Albania who promote and sell their products through MIA’s marketing channels
- Consumers from Tirana and the entire country who buy fresh and safe food from MIA

Objectives

- Bringing the best natural and organic Albanian products to the consumer
- Producing healthy, fresh and safe food products
- Maintaining the highest standards of quality through permanent commitment to a sustainable eco-system of traditional agriculture for humans, animals, plants and environment
- Selecting farmers meeting MIA standards, improving their practices and guaranteeing them a fair price

Legal framework & Budget

MIA is a private business. The number of employees varies depending on the season. Usually there are 1 to 2 workers at the shop and 10 to 13 at the farm. MIA also provides a full-time job to the 3 founders. The main source of financing of MIA is owners’ own funds.

Activities

MIA main activities are organic farming and the sale of organic food produced by other Albanian farmers. MIA Farm has an integrated irrigation and drainage system. All fields are divided and reachable by alleys. So, the area is pleasant and also used for recreational activities. Employees working at the farm are professional farmers. MIA produces vegetables, herbs, liquors, milk and dairy products, meats and eggs, and some processed vegetables. MIA also developed a network of small organic farmers in Albania who sell their products through MIA’s marketing channels. MIA has 2 main marketing channels: its shop near the centre of Tirana and its online sales platform. Consumers can discover their products on their website and make an order. MIA organic makes the delivery at home.

Innovation & Outcomes

One of the main innovative aspects of MIA is that these 3 young graduates at the same time produce, promote and sell traditional organic food from Albania. Through their supply network, they also help small organic farmers selling their products. Finally, their marketing approach, based on physical and virtual marketing channels, is very modern and effective. MIA is also very active on Facebook and Instagram. Its visual identity is very trendy.

Main obstacles & Next steps

The main difficulty at the beginning was to find products and farmers meeting MIA’s standards of quality. Anisa, Eniada and Altin travelled all around Albania and contacted 130 farmers. They signed contracts with 30 of them. Another obstacle was to earn consumers’ trust. Thanks to its effective communication, MIA is now a well-established brand in Albania. Now, the main difficulty lies in the business relation with partner farmers, especially regarding deliveries, timing and product quality.

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture

1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
4. Quality upgrading and value creation
5. Organisational benefits
6. Territorial integrity/land management
7. Environmental benefits
8. Synergies

More on:
www.mia.al
Farmers’ markets

Farmers’ markets are being developed in the Thessaloniki Metropolitan Area. They consist in direct sale by local farmers to consumers without any intermediary to ensure a fair price, enabling farmers to get most of the value of their activity. On the other hand, through directly buying from the producers, consumers are more sensitised to the issues of short-circuits and farmers’ revenues.

Contact details

Margarita Karavangeli
Hellenic Food Authority
e-mail: mkaravangeli@efet.gr

Location
several municipalities in the Thessaloniki Metropolitan Area

Stakeholders

- Local farmers, who sell their produce and become more familiar with their consumers’ tastes
- Consumers, who purchase farmers’ products and participate in the community life
- Municipalities and Regional Units which provide space for these markets
- Hellenic Food Authority and Single Food Control Agency (EFET)

Objectives

- Increasing farmers’ income and fighting unemployment at family level
- Promoting agricultural local products and increasing their consumption
- Offering agricultural products to consumers at a reasonable price (without intermediary)

Legal framework & Budget

The initiative is based on the Greek law 4235/2014 as amended by the 66th Article of Law 4384/2016. According to the law, farmers’ markets can be developed as self-managed, civil and non-profit-making bodies. The Municipality or the Regional Unit provides the necessary space for the market. The effective implementation of farmers’ markets in Thessaloniki will be possible as soon as the Ministerial decision is issued.

Activities

Already existing in other countries, farmers’ markets involve the sale of fresh agricultural products on local markets by farmers themselves without any intermediary. Farmers work in collaboration with local authorities for finding a suitable area for the market place. These markets, at the difference of traditional food markets, are dedicated to offer local agricultural products to consumers at a reasonable price so that farmers’ income is increased and consumers can buy fresh food of higher quality.

Innovation & Outcomes

Farmers’ markets are a concrete solution to overcome the lack of entrepreneurial spirit and culture of local farmers. The latter can promote their products, interact directly with consumers and take their tastes and expectations into account to develop their production. The market is also an opportunity to strengthen links among producers and to encourage young people to start a farming business. Finally, selling on the market generally involves other members of the family, decreasing unemployment at family level.

Main obstacles & Next steps

Farmers are very supportive of the initiative, which draws from various inspirational experiences abroad. The ongoing regulatory and decisional process is hindering the full application of this initiative. Once it is effective, another avenue for increasing the local added value of agricultural products will be processing and direct sale on the market.

More on:
http://portal.efet.gr/portal/page/portal/efet

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture

1. Job creation
2. Social inclusion
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8. Synergies
According to the European Commission, ‘social innovation’ can be defined as the development and implementation of new ideas (products, services and models) to meet social needs and create new social relationships or collaborations. It represents new responses to pressing social demands, which affect the process of social interactions. It is aimed at improving human well-being. Social innovations are innovations that are social in both their ends and their means. They are innovations that are not only good for society but also enhance individuals’ capacity to act.

As an open innovation, social innovation in urban and peri-urban agriculture does not only reflect agronomic and organisational advances, but also and above all the dissemination of knowledge and experience through the formation and functioning of social networks. In this sense, it is difficult to separate social innovation from consumers’ innovation and/or farmers’ organisational and marketing innovation. However, for social innovators, urban and peri-urban agriculture is more a way for transmitting values, knowledge and skills and contributing to a new model of society than a provider of quality food or a source of income.

Therefore, the MADRE project approach to social innovation in urban and peri-urban agriculture focuses on social diversity and integration of the most vulnerable population groups into social life, particularly into the labour market. Some examples of this approach include agricultural farms and community gardens which offer recreational or work-related activities for social services recipients, disabled persons, elderly people, youngsters and children, psychiatric patients, (former) drug addicts, burn-out victims, etc.

A selection of 6 best practices of social innovation through urban and peri-urban agriculture in the MADRE metropolises is presented in the following pages.
Can Pinyol Community Gardens

Can Pinyol Community Gardens are a community-based and participatory project of social gardens in Sant Boi de Llobregat, a peri-urban town of 83,000 inhabitants. They were initiated in the framework of the European SIDIG-MED project, coordinated by the Barcelona Metropolitan Area. The community component is present in the definition of the different components that make up the project.

Contact details

Elena Argelich
Barcelona Metropolitan Area
e-mail: argelich@amb.cat

Stakeholders
• Barcelona Metropolitan Area – BMA, which initiated the project
• Municipality of Sant Boi de Llobregat, which owns the land
• Marianao Foundation, which manages the community gardens
• Sant Boi de Llobregat families and social services beneficiaries
• Social institutions and initiatives: COS School, Aramis, Germanes Hospitalaries, Llar Sant Josep Residence, Tots Som Santboians, Equilibri Association, Ariadne Project, Endavant Jove, Taller prelaboral de serigrafia, Marianao neighbours association

Objectives
• Strengthen community ties and social cohesion in the municipality and provide a space for socialisation and personal promotion to the community
• Recover the traditional culture of gardening based on organic and sustainable crops
• Respond to the social and therapeutic needs of vulnerable people through participation in the community gardens
• Boost the educational and recreational nature of orchards

Legal framework & Budget
An agreement between BMA and the Municipality of Sant Boi de Llobregat was signed for the cession of a plot of land. The BMA committed to implement the necessary works and investments to prepare the land and infrastructure. The Municipality committed to engage a NGO for the management of the garden during at least 7 years and to cover 25% of annual operating costs (€ 7,000). The remaining 75% (€ 20,800) comes from own resources and contributions of the selected NGO, the Marianao Foundation.

Activities
The Can Pinyol Community Gardens are composed of 36 social allotments intended for people in disadvantaged situations such as unemployment, psychical disabilities, mental disorders, etc. Collective gardening is used as an instrument of community building and self-confidence improvement. All plots of land are cultivated using organic agricultural techniques. The project has 5 main components: community participation, training and technical advice, accompaniment of social services’ beneficiaries, awareness raising on agroecology and dissemination.

Innovation & Outcomes
The project consists in a series of training actions on organic agricultural techniques, both theoretical and practical, and in the implementation of technical advice in situ, provided by a coaching team. It receives the active support of the Training Committee, which offers agricultural advice to people who need it and assesses training contents and modules to prioritise.

Main obstacles & Next steps
The main obstacles were the degrading equipment and infrastructure of the plot: the existing pump was old and not operating any more. The water quality was good but the water flow was insufficient. To solve this issue, a deeper well had to be dug and built. As a next step, Can Pinyol General Assembly will create new spaces of leisure in the garden facilities to strengthen the community building dimension of the project.

More on:
www.facebook.com/Horts-comunitaris-Can-Pinyol-Sant-Boi-de-Llobregat-1796807300555214
CPIE Bassin de Thau

Deeply rooted in the territory of Thau, CPIE Bassin de Thau is a local member of the French CPIE associative network, which aims to develop and promote concerted initiatives in the field of environment and sustainable development, approached in a comprehensive way. The CPIE network was initiated at the beginning of the 1970s. CPIE Bassin de Thau was founded in 2008 and labelled for 10 years.

Contact details

Émilie Varraud
Director
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Lucie Tiollier
Project manager in sustainable agriculture
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Location
Parc Technologique et Environnemental, Route de Salins, 34140 Mèze, France

Legal framework & Budget
CPIE Bassin de Thau is a non-profit association with a governing body composed of 14 persons with different responsibilities in other associations or local administrations. The association has 2,210 subscribed members. Its staff is composed of 52 salaried workers, including a Director, a Deputy Director, 9 project managers. The association’s annual revenue is around € 600,000, of which 3/4 come from project-based EU and French funds.

Activities
CPIE Bassin de Thau supports local authorities in their sustainable development actions by drafting with them local assessments and action plans, animating workshops and designing awareness, communication and facilitation tools. It also acts directly with consumers through the ‘Thau baskets’, a local network of 4 villages organised in buying groups. The network involves 44 suppliers of fish, seafood, fresh produce and honey and around 2,500 households. CPIE Bassin de Thau supports buying groups in the structuring stages and the provision of coordination tools. The association is also involved in projects on sustainable fish farming with CIRAD and on agritourism with Chamber of Agriculture of Hérault.

Innovation & Outcomes
It is estimated that 37,200 individuals benefited from CPIE Bassin de Thau’s actions. Its various projects have shown that direct contact between farmers and consumers based on voluntary actions increase farmers’ revenues considerably while supplying consumers with fresh local products. The main added value of the association is its joint work with local authorities, NGOs, farmers and consumers that motivates local actors to better communicate and organise short and direct marketing channels.

Main obstacles & Next steps
Project development and management activities are crucial for receiving funds from the European Union and local authorities but they are very time-consuming. Besides, EU subsidies tend to favour “modern” agriculture to peasant and organic farming. The association is currently studying the possibility to develop organic food baskets, as well as food baskets for vulnerable population (with Secours Populaire).

Assessment against 8 key challenges

1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
4. Quality upgrading and value creation
5. Organisational benefits
6. Territorial integrity/land management
7. Environmental benefits
8. Synergies

More on:
www.cpiebassindethau.fr

Objectives

• Raising awareness of the general public on environmental issues, especially children, youth and vulnerable social groups
• Accompanying local authorities in setting up short marketing channels
• Coordinating environmental studies in participatory sciences and disseminating results via pedagogical tools
• Designing, capitalising and sharing resources and knowledge through skills training, teaching materials, exhibitions, publications and communication expertise
Jardin des Aures

This collective garden was initiated in 2000 by families of the neighbourhood who wanted to meet and garden together in the former wasteland of Terre Nouvelle, North of Marseille 15th District. It has a land of 2,000 m², of which 1,000 m² are cultivated, and is composed of 10 plots, including a collective one. The project received the support of the Protestant Parish of Marseille North and local association Accueil & Rencontres. Today, Jardin des Aures has developed as a more heterogeneous eco-site combining cultural, educational and gardening activities.

Contact details

- Philippe Reboul
  Head of Accueil et Rencontres
  e-mail: accueiletrencontres@gmail.com

- Nidal Abdelkrim
  Coordinator of Jardin des Aures
  e-mail: nidal@accueiletrencontres.org

Stakeholders

- Accueil & Rencontres association, which manages the collective garden
- Protestant Parish of Marseille North
- Network of Mediterranean Solidarity Gardens
- Association for the Preservation of Peasant Agriculture (AMAP)
- Public authorities: City of Marseille, Aix Marseille Provence Metropole

Objectives

- Allowing populations with limited access to green spaces to garden and, above all, to meet and consume their own production
- Promoting social diversity in the Aures neighbourhood, one of the most vulnerable areas of Marseille
- Educating people of all ages to healthy food, products’ quality and seasonality through partnerships with schools, associations and social centres

Legal framework & Budget

The Accueil & Rencontres association was created in 1987 by the Protestant Parish of Marseille North to manage social actions in Marseille’s Northern district, including the green area where Jardin des Aures was developed. The land is used through a 90-year lease with the City of Marseille. The garden is supervised by the association volunteers’ administration council and employs 2 paid staff (1.5 full time equivalent).

Activities

The collective dynamic is at work along different axes: primarily food, with cooking and nutrition workshops animated by volunteers, then environmental education for children, through partnerships with social centres, schools and colleges of the district (400 children of all ages benefited from this service since 2006). Composting awareness workshops are held once a month, free of charge and open to all. The garden also hosts training courses in organic gardening, in partnership with social centres and an AMAP, dedicated mainly to vulnerable populations from social housing nearby.

Innovation & Outcomes

Jardin des Aures is an “eco-site” in the middle of social housing blocks, in the Northern districts of Marseille. It is managed permanently by an association dedicated to social projects, ensuring its smooth running over the years. The garden offers inhabitants a social and environmental-friendly place of living. This unifying tool serves first of all to bring together people around a project and a common sense, with the support of local public and private actors.

Main obstacles & Next steps

Today, Accueil & Rencontres is supporting 15 other local gardens operated by people who do not have a garden at home, often in financial difficulty. The replication of the project will depend on the availability and affordability of land in a context of decreasing public subsidies. Developing a more sustainable economic model on the long term will be a key success factor to allow the hiring of a full-time employee under a stable contract.

More on:
http://accueiletrencontres.wixsite.com/accueil
Fattoria Urbana

Fattoria Urbana started as an Agrarian Centre in 1985 when the municipality of Bologna assigned the land to the association Circolo la Fattoria. At the time, it was a rural area with wild animals. In 2005, it was converted into an Urban Farm when the area turned into a degraded periphery and was restructured by the municipality. Since then, Fattoria Urbana organises educational activities on sustainability and food quality targeted to schools, with the technical support of the Municipality.

Contact details

Simone Spataro
Chairman of the Association “Circolo La Fattoria”
e-mail: presidente@circololafattoria.it

Location
Via Luigi Pirandello 6, 40127 Bologna, Italy

Stakeholders

- Circolo La Fattoria, association which manages the initiative
- Virgola, association of local educators
- Municipality of Bologna and San Donato-San Vitale neighbourhood representative institution
- Other public authorities: Metropolitan City of Bologna (former Province), Emilia-Romagna Region
- CARISBO Foundation

Objectives

- Promoting environmental and agricultural protection through educational and recreational activities
- Preserving green and agricultural areas in the urban context
- Managing urban gardens with income generating activities for members and citizens

Legal framework & Budget

The Fattoria Urbana initiative is managed by the voluntary association Circolo La Fattoria. It employs 2 asylum seekers for animal care and several other persons for educational activities. Currently, Circolo La Fattoria has a balanced budget. Main expenses are related to animal care (€ 22,000), events and activities (€ 4 to 6,000) and educational tours (€ 1 to 2,000). Due to the lack of indoor space, the structure is used mainly in late spring/summer and in the first months of autumn.

Activities

Circolo La Fattoria organises educational activities for schools (early childhood, primary and secondary students) such as didactic laboratories and horticultural activities, both on-site and in school premises. It also offers trainings in organic agriculture and horticultural activities to citizens. Finally, the association organises country festivals typical to the region (equinox festival, spring party, harvest festival). Most activities are carried out by environmental education practitioners from the Virgola Association.

Innovation & Outcomes

Fattoria Urbana is one of the first educational farms developed in Italy in the urban context. Located in a formerly degraded peri-urban yet central area, San Donato-San Vitale, it has participated significantly to enhancing the quality of life in the neighbourhood and revitalising the area. To date, 30 schools were involved in educational activities. Up to 5,000 people participated in the farm activities every year, including 1,000 members of the association Circolo La Fattoria. Yet the initiative is not sustainable from an economic point of view. Indoor space would allow to develop the initiative on a yearly basis and to create full-time jobs. The main target groups are schools but activities for private groups (children’s birthday parties, end-of-year school trips with parents, etc.) and for extra-school centres (summer centres, baby-parking, communities, etc.) could be carried out.

Main obstacles & Next steps

Until now, the association has only outdoor space, meaning activities can be held only during the Spring-Summer season. Depending on the outcome of a call for tender of the Municipality for indoor spaces, it will be possible for Circolo La Fattoria to develop structured programmes and carry out continuous educational, recreational and cultural activities over the year, thus generating more revenues and creating full-time jobs.

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture

1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
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5. Organisational benefits
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7. Environmental benefits
8. Synergies

More on:
www.circololafattoria.it/fattoria-urbana
Luan Balili started his activity in April 2014. He worked as building administrator, earned a small salary and was the only active person in his family. The building where he was employed had a large space in front of it, which was used as parking by inhabitants. Luan had a new business idea: transforming a part of this space into a green area for growing fruits and vegetables.

**Contact details**

**Etleva Dashi**
Agricultural University of Tirana, Member of Luan Balili
email: evadashi@ubt.edu.al

**Location**
Fortuzi street, administrative unit 9, Tirana, Albania

**Stakeholders**
- Building inhabitants (green area and fresh food)
- Luan Balili’s family (fresh food and increased revenue)
- Neighbourhood (green area and some fresh food)
- Municipality (green area without any related investment or expenditure and self-service by the community)

**Objectives**
- Developing a green area in the urban context
- Producing fresh food for inhabitants
- Generating more income for the family

**Legal framework & Budget**
Luan proposed to the inhabitants to transform 800 m² of their parking area into a green garden and to grow vegetables. He is self-employed. All the funding comes from his sales.

**Activities**
Luan Balili continues to work as building administrator. In parallel, he grows vegetables on the 800 m² plot of land. The garden is surrounded by fruit trees and strawberries. Luan’s main clients are inhabitants of the building. The rest is sold at a grocery shop in the neighbourhood.

**Innovation & Outcomes**
This initiative is innovative because Luan uses public space to grow fruits and vegetables and increase his income. It has a positive impact on the community as it provides a new green area in the neighbourhood. All building inhabitants can also benefit from fresh products at a preferential price and know how they were produced. Besides, eating local products means eating seasonally, supporting the local economy and reducing the environmental footprint of food supply.

**Main obstacles & Next steps**
The main obstacle that Luan had to face was the initial opposition of inhabitants, who considered the initiative illegal and didn’t see the benefits for them. Now, the business has good chances to be sustainable because no further urbanisation is planned in the area and Luan is now familiar with this work.
Neapoli-Sykies Vegetable Gardens

In July 2012, in the midst of the Greek financial crisis, the Municipality of Neapoli-Sykies decided to put a total area of 1,000 m² divided in small plots at the disposal of vulnerable households for a period of at least 2 years. Beneficiaries, selected by the Municipality according to social criteria, can use this land to produce fresh and healthy products for self-consumption.

Contact details

Ioannis Polychroniadis
Municipality of Neapoli-Sykies
e-mail: gep.sykies@n3.syzefxis.gov.gr

Location
3 different sites in the Municipality of Neapoli-Sykies, Thessaloniki, Greece

Stakeholders

- Municipality of Neapoli-Sykies
- Centre for the Support of Employment and Entrepreneurship of Women

Objectives

- Production of fresh and healthy products by the consumers themselves
- Support to vulnerable urban dwellers by reducing their food budgets and improving their life quality
- Emergence of a collective consciousness of the importance of allotment gardens and cultivation activities

Legal framework & Budget

It is an informal project, without a legal structure. From 2012 to 2016, the initiative was funded by the European Social Fund. Since 2017, it is funded by the own funds of the Municipality of Neapoli-Sykies. The annual budget is 31,000 €. 3 permanent employees work at the Vegetable Garden.

Activities

Households selected by the Municipality are allocated a 40m² allotment garden to grow their own vegetables. They can grow any variety but according to organic methods. In this sense, they are supervised by agricultural experts on a regular basis. The municipality also provides beneficiaries with water, seeds, plants and tools free of charge. Beneficiaries just have to give 10% of their harvest to the Social Grocery Store of Neapoli-Sykies. They can keep the rest for self-consumption.

Innovation & Outcomes

Gardens are locked and access by beneficiaries is provided by the municipality employees, based on a schedule defined and received in advance. The location of the 3 different sites has been decided based on certain criteria, mainly accessibility for beneficiaries using public transportation. The land is provided for free to selected households, which resulted in the upgrading of formerly abandoned and deprived areas. This top-down initiative succeeded thanks to close collaboration between the local authority and the civil society.

Main obstacles & Next steps

The main obstacle to the initiative was the lack of available land in the Municipality of Neapoli-Sykies. To overcome this barrier, the Municipality found alternatives on more fragmented and smaller sites. The initiative continues to be implemented beyond the period of EU funding, with municipal own funding. The main challenge for the future is to attract and support more beneficiaries, and to replicate the gardens in other areas within the Municipality of Neapoli-Sykies.

More on:
www.dimosneapoli-sykeon.gr
Consumer innovation

Consumer innovation refers to innovation by individual end-users or user communities, rather than by suppliers and producers. According to Eric von Hippel, lead users are users of a product or a service that currently experience needs still unknown to the public and who also benefit greatly if they obtain a solution to these needs. He conducted the first large-scale survey of consumer innovation and showed that the amount of money individual consumers spent on making and improving products was more than twice the amount spent on products research and development by all companies in the UK. Often, user/consumer innovators share their ideas with producers in the hope of having them produced, a process called free revealing.

In the food sector, many civil society actions are undertaken to develop new forms of retailing and provide city-dwellers with local food products on a daily basis and at an affordable price. These new forms respond to consumer demand for shorter marketing channels and direct links with local farmers and processors.

Consumer associations are also very active in forming pressure groups for saving green and agricultural areas against urban development and for transforming abandoned land plots into community or family gardens. They are becoming increasingly successful in this trial of strength with local authorities.

These actions can be defined as “consumer-citizenship”. Consumers’ active participation in the development of urban agriculture creates a new interaction between metropolitan agriculture dynamics and the transformation of lifestyles and consumption patterns.

Consumer innovation contributes to raise awareness of children and youth on nutrition, environment and citizenship by involving them in gardening, growing fruits and vegetables, and consuming fresh products. It can also facilitate the transmission of cultural and culinary heritage to young generations.

You will find a selection of 6 best practices of consumers’ innovation in the MADRE metropolises in the following pages.
**Aplec d’Agricultura Urbana**

Since 2014

Several urban agriculture projects have been developed in Barcelona in recent years. In 2013, the City Council initiated the “Pla Buits” programme, which transferred about 12 empty spaces to citizen initiatives, half of them being urban gardens. The need arose to network these projects and link new with older ones. Aplec was created in this purpose, as well as to raise public awareness on urban agriculture.

**Contact details**
- **Josep Maria Valls**
  Coordinator of Aplec for Tarpuna
  e-mail: info@agriculturaurbana.cat
- **Location**
  Barcelona
- **Opening hours**
  Tuesday to Saturday 14:30 - 19:00

**Stakeholders**
- Coordinator: Tarpuna cooperative
- Other organisers: Conreu Sereny, Connect Hort, Ecohortus, Educahort, Associació Nafent and Punt Eco
- Universitat Oberta de Catalunya (Catalan Open University), as a scientific partner
- Barcelona City Council, Barcelona Provincial Government and Barcelona Metropolitan Area, which provide official and financial support
- Private sponsors: Compo Iberica S.L.

**Objectives**
- Increasing the visibility and public awareness on urban agriculture and related projects
- Stressing the environmental and social value of urban agriculture projects
- Setting up a network of urban agriculture projects and stakeholders to share knowledge and experience

**Legal framework & Budget**

Aplec is coordinated by the Tarpuna cooperative and organised through the collaboration between various organisations. The annual budget is around €12,000. It is supported by the Barcelona City Council, the Barcelona Provincial Government and the Barcelona Metropolitan Area through yearly subsidies.

**Activities**

Aplec is an annual event dedicated to raise awareness and communicate on the technical, social and environmental aspects of urban agriculture through fairs, hands-on workshops, seminars, guided tours to projects, etc. It takes place in Barcelona every year in October and lasts 2 weeks. The gathering enables very diverse projects to go beyond their own reality, share knowledge and initiate new collaborations. School gardens also participate actively in Aplec. Dedicated experience-sharing activities for school teachers are organised.

**Innovation & Outcomes**

The main focus of Aplec is to bring together very diverse stakeholders and projects. Every year, the event gathers around 500 participants, with a satisfaction level of about 75%. Impact on professional and social media is high. The support of the municipality is key to bringing this issue to the attention of the general public. The coordination of the event by Tarpuna, which promotes, designs, manages and trains individuals and families on urban agriculture is another key factor of success.

**Main obstacles & Next steps**

Lately, some similar networking initiatives have been launched. So, the most pressing challenge for Aplec is to differentiate, increase participation and position as the one and only event on urban agriculture in Catalonia. Another issue is to ensure long term financial sustainability as funding depends too much on a subsidy paid by the Barcelona City Council through its annual call for projects. Aplec aims to get a more stable financial support on the basis of its positive impact and response to participating entities’ needs.

**More on:**
  www.agriculturaurbana.cat
Pic’Assiette

Pic’Assiette started in October 2010 as a citizen initiative aiming to form a buying group. The association was born out of the awareness of the social, environmental and economic impacts of lifestyles. It is committed to environmental education and sustainable development and in particular to public-spirited food. To this end, it initiates and promotes the development of responsible and fair food practices by drawing on local, regional, national and international initiatives. These activities take place in priority in the Northern part of Montpellier, at Grand Pic Saint Loup, and involve a network of about 20 producers from the area.

Contact details
Françoise Viala
Project coordinator, Pic’Assiette
E-mail: contact@picassiette.org

Location
Maison de Pays, 9 place de la Mairie, 34380 Saint Martin de Londres, France

Stakeholders
- About 60 subscribing members
- Private actors: L’Ilot Paysan, Gaec Les jardins de la Buèges
- Associations: Nature & Progrès, Collectif des Carrigues, CIVAM Hérault, CIVAM Vidourle
- Public partners: Grand Pic Saint Loup Community of communes, Hérault Department, DRAAF Occitanie
- Private sponsors: Carasso Foundation

Objectives
- Finding solutions to the issues of water use and agricultural irrigation
- Bringing agricultural and food production closer to consumption centres through agricultural sourcing, changing eating habits and organising short marketing channels
- Having a control on the origin of seeds and seedlings

Legal framework & Budget
Pic’Assiette is a non-profit association under the French law of 1901. It has around 60 subscribing members, 2 salaried workers and 5 volunteers. Pic’Assiette is member of the network Coopere 34 and of the collective Tout Un Plat. It is funded by the Hérault Department (operating budget) and the Grand Pic Saint Loup Community of communes. It also received funding from the Ministry of Agriculture (through its national food programme) and from the Carasso Foundation (since 2014) for its project on food waste “Anti-Gaspi”.

Activities
Pic’Assiette implements various activities: awareness-raising workshops on responsible and fair food for children, schoolchildren and the general public; animation of producers’ groups; organisation of at-the-farm meetings between consumers and local farmers (“Rencontres papilles et saveurs”); support in the implementation of projects of individual or collective change in food consumption habits; supply of appetizers’ baskets and food plates made from local and seasonal products at a low price; participation in events, studies and reflection groups on environment protection and local food systems, etc.

Innovation & Outcomes
Pic’Assiette stands out for its strong local roots. All its activities and structuring revolve around organising the production, distribution and consumption of local food. They are based on the strong relational network established between consumers, the association’s staff and local farmers. Within the ‘Anti-Gaspi’ project, Pic’assiette joined forces with the solidarity-based restaurant Table de Sesame and the socio-cultural centre Agantic to offer €3.5 menus made of food leftovers from catering to the clients of Table de Sesame.

Main obstacles & Next steps
The main obstacle to this initiative is the price of land, which makes local agriculture at risk. Besides, there is a great number of small-scale initiatives promoting local food and environment protection but they stay isolated from one another. So, there is a need to unify/gather these initiatives. The Montpellier Metropolitan Area could endorse this convening role.

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture
1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
4. Quality upgrading and value creation
5. Organisational benefits
6. Territorial integrity/land management
7. Environmental benefits
8. Synergies

More on: https://picassiette.org
Filière Paysanne

Filière Paysanne started in 2009 when Jean-Christophe Robert decided to create the first peasant grocery store ("Épicerie Paysanne") in Marseille, which opened in 2010. The latter was transformed into a cooperative (SCOP) and sold to its employees in 2012. From 2013 to 2016, Filière Paysanne accompanied the creation of 4 new peasant grocery stores in the Bouches-du-Rhône Department. The association carries out other activities to support the development and operation of peasant grocery stores: training, setting up local supply platforms, policy advocacy, etc.

Contact details

Jean-Christophe Robert
Head of Filière Paysanne
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Stakeholders

- Peasant grocery stores (existing or in project)
- Farmers affiliated to ADEAR (Association for peasant agriculture), Peasant Confederation and InPACT PACA (Initiatives for a Citizen and Territorial Agriculture)
- SCOP Epice (cooperative) and Plate-forme Paysanne Locale for complementary supplies
- Regional Association for Local Development (ARDL) and MACIF Foundation
- Various departments and platforms of the Aix-Marseille University
- SUD Region, Bouches-du-Rhône Department, Aix Marseille Provence Metropole

Objectives

- Providing local farmers with a secure and profitable commercial outlet
- Offering urban consumers a practical and daily supply solution of quality food (organic or peasant) at an affordable price (fair margin principle)
- Creating meaningful jobs and economic security for the founders and employees of grocery stores thanks to a viable and tested model
- Raising consumers' awareness on the importance of local agriculture as well as eating quality, fresh and seasonal products

Legal framework & Budget

Filière Paysanne is a citizen association. The first pilot grocery store had 5 employees, 3 of whom took over the store as a SCOP in 2013. Other stores have either associative or a private company status and represent in total 15 full time equivalents (salaried or self-employed workers). After 3 to 5 years, a grocery store generates an annual turnover of around € 500,000, which ensures its financial autonomy.

Activities

Filière Paysanne coordinates a network of peasant grocery stores in cities and offers training for owners and project promoters as well as other support services. To date, member grocery stores supply around 5,000 households with local food from organic and peasant agriculture. Since 2012, the association has developed the Plateforme Paysanne Locale (Local Peasant Platform), a logistic platform which collects, pools, transports and delivers local agricultural products to public and private beneficiaries (collective catering, restaurants).

Innovation & Outcomes

This innovative economic model is based on a specifically local supply and on the practice of fair margins, allowing the viability of grocery stores and an equitable sharing of the value between producers and retailers. The 5 grocery stores created or accompanied in the past 7 years generate an overall turnover of about € 2 million, more than half of which goes to local producers in the territory (approx. 500 tons of produce purchased). In addition, through collaboration with public and private actors of food distribution, the Local Peasant Platform allows for a better purchasing capacity and price.

Main obstacles & Next steps

The development of this model is achieved through spin-off and training. The training programme costs € 2,000, which can hardly be self-financed by project promoters (mainly jobseekers). However, public funding is very difficult to access. So, the only option to date is to limit this training to those who can bear the cost. Filière Paysanne is preparing a communication plan to promote its training offer to potential store-owners at national level.

More on:

http://filiere-paysanne.blogspot.fr
Arvaia

SINCE 2013

Bologna and the Emilia-Romagna Region have a rich history of Solidarity Purchasing Groups (GAS in Italian). In 2013, Arvaia gave new momentum to the concept with Community Supported Agriculture (CSA). Through the cooperative, citizen-consumers support organic and biodynamic agriculture and take back rural education and culture in the urban context. In 2015, the Municipality of Bologna assigned 47 hectares of agricultural land to Arvaia for developing a multi-functional farm.

Contact details

Alberto Veronesi
Chairman of Arvaia
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Stakeholders

• Over 420 members of the cooperative (mostly consumers)
• Municipality of Bologna, which owns the land managed by Arvaia
• Banca Etica and MAC6 solidarity-based financial entity, which support Arvaia
• Campi Aperti, Labas Centro Sociale, 20 Piatte Association, Dynamo Bike station of Bologna, Creser-DES Bologna, URGENCI and Gartencoop Freiburg, with which Arvaia cooperates
• University of Bologna, involved in organic farming experimentations

Location

Via Olmetola 16, 40132 Borgo Panigale, Bologna, Italy

Objectives

• Producing and consuming quality food products through organic and biodynamic farming
• Reducing the environmental footprint, regenerating land and enhancing biodiversity
• Involving citizen-consumers in voluntary activities in agriculture and promoting social inclusion
• Communicating to strengthen the solidarity network of members and reach new target audience

Legal framework & Budget

Arvaia is a cooperative. Its members can be consumers, producers or funders. In 2016, it had 4.5 employees and planned to hire one more person in 2017. Total budget was € 227,600 in 2016, expected to reach € 276,800 in 2017. The initiative is self-sustaining through members’ contributions. The main funding sources are own funds and investments of members in 3-year bonds remunerated at a 2% rate.

Activities

Arvaia’s main activities are the distribution of organic products in the city of Bologna, the cultivation of 45 types of vegetables on 47 hectares of agricultural land, as well as the organisation of educational activities (157 visitors at the didactic farm and 41 trainees from high school and university in 2016) and public events (20 in 2016). Arvaia also develops collaborations with thematic networks and academic institutions to design and experiment solutions for organic farming and short-circuit food distribution.

Innovation & Outcomes

Through the establishment of a new agricultural cooperative form, well-integrated in the solidarity-based economy, Arvaia developed a great distribution network of organic products (483 quintals of products through 8 distribution points in 2016), and involves citizens and institutions in the conservation of the rural culture and landscape. It is innovative in various areas: its CSA organisation and management structure, self-financed by members, the involvement of a wide spectrum of stakeholders, from local to European levels, and experimentations on organic farming with the University of Bologna.

Main obstacles & Next steps

The main obstacles faced by Arvaia are the high price of water, as well as the absence of irrigation system and appropriate building for storing equipment and produce in the multi-functional farm. The initiative was shaped by the concept of sustainability, from management to production and distribution, agroecology and environment protection, short-circuits and zero kilometre approach, deliveries with cargo bikes, zero packaging for product distribution, etc. Its growth creates new job opportunities, new professional collaborations, and new social and cultural models.
Blerina Bombaj
We are what we eat!

Since 2010

Blerina Bombaj started as a dietician and restaurant owner in the centre of Tirana. She supported people in their everyday diet and created personalized food portions according to their needs. Given the success of her activity and the growing demand of consumers, she had the idea of producing directly her ingredients. So, Blerina developed her own agro-ecological farm in the Laknas area, a peri-urban area near Tirana, where she cultivates various kinds of vegetables and spices.

Activities
The core of Blerina’s business is to be consistent with agro-ecological values from agricultural production to food processing. The main activities are farming, processing, cooking at the restaurant, product sales (directly on the farm, at the restaurant or through special diet programmes), dietary advice and farm entertainment (especially for children). Various educational games related to farming, plant growing and cooking are organized for children during the weekend. Blerina is very active in the social life of Tirana. She is often invited in TV shows or interviewed in magazines to promote healthy food and eating locally. This is a new approach of doing business in Albania.

Innovation & Outcomes
Blerina Bombaj contributes to promote local products and food at both the local and international level. She has now become a well-known farm and restaurant owner in Tirana, with a significant number of regular customers. Her initiative is unique because she combines farming, diet programmes, cooking at the restaurant and entertainment activities. Preparing diet programmes and cooking at the restaurant adds value to the farm production. Particular attention is paid to the contact between farmers, cooks and consumers to create a long-term community. Finally, consumers contribute with their specific dietary needs for good physical and mental health.

Main obstacles & Next steps
The first obstacle that Blerina had to face was to make her business known and to earn consumers’ trust regarding the origin of products, production methods, etc. Now, the main obstacle is to meet as much consumers’ needs as possible, related to very diverse diet programmes. This business requires flexibility in production schedules and methods as well as a great attention to product quality.

Contact details
Owner
Blerina Bombaj
Rruga Brigada VIII, Tirana, Albania

Stakeholders
- Local farmers who supply their products to Blerina
- Consumers who purchase fresh products for their everyday cooking and those who need a personalized diet programme and special food portions

Objectives
- Producing and processing healthy, safe and fresh food
- Promoting a balanced diet for urban and peri-urban inhabitants in the Tirana area
- Offering healthy and seasonal meals made with fresh products at the restaurant
- Raising awareness on seasonal diets among children through farm entertainment

Legal framework & Budget
This activity is a private business. It employs 5 to 7 persons at the restaurant and 5 to 12 persons at the farm according to the season, in addition to providing a full-time job to Blerina Bombaj.

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7. Environmental benefits
8. Synergies

More on:
www.blerinadiet.al
1. **Job creation**

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture

5. **Organisational benefits**

2. **Social inclusion**

6. **Territorial integrity/land management**

3. **Educational, health and nutritional benefits**

7. **Environmental benefits**

4. **Quality upgrading and value creation**

8. **Synergies**

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**Legal framework & Budget**

PER.KA is an informal group, with no dedicated legal status and no external funding. The General Assembly meets once a month to find common solutions to problems encountered in farming and garden management. Each member pays an annual fee of €10 for maintenance costs, with the exception of the most vulnerable ones. The activity has to remain non-profit.

**Activities**

Today, more than 130 families grow organic and seasonal vegetables, fruits, flowers and herbs for self-consumption on an individual plot in PER.KA gardens. The food produced is safe, nutritious and beneficial for the human body, while farming techniques respect the local flora and fauna. Most gardeners do not use commercial seeds but their own seedlings or get them from PELITI association. Some members with a degree in agriculture can advise and train others informally, according to the model of Communities of Practices. The Municipality of Pavlos Melas offers technical support through water access and site security.

**Innovation & Outcomes**

Self-organisation and collective governance offer great freedom to grow and experiment new crops and techniques, in the form of an autonomous research laboratory. Traditional seeds are provided for free by PELITI. PER.KA also developed long-term training in gardening and farming for interested groups, including schools and immigrants. The economic crisis led to an increase in the number of farmers joining the initiative. There is also a greater level of social interaction and peer-learning amongst gardeners than in other municipal gardens, which contributed to the development of valuable collective skills apart from agronomical ones.

**Main obstacles & Next steps**

However, self-organisation makes the initiative vulnerable to externalities such as water shortage during the summer. PER.KA members calls for an integrated plan to turn the Karatasou military camp into a free and open green space for citizens. Yet, PER.KA gardens are under threat as land occupation is still illegal and the Greek army claims the ownership of the place.

**Contact details**

- **Antony Karagiorgas**
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- **PER.KA Secretariat**
  email: periastikeskalliergeies@gmail.com

- **Location**
  Karatasou former military camp, Pavlos Melas, Thessaloniki, Greece

**Stakeholders**

- Cultural Club of Karatasou and other local organisations mobilised to turn the Karatasou military camp into a free and open green space for citizens
- PELITI, a seed bank which saves traditional seeds
- Municipality of Pavlos Melas, which lets PER.KA occupy the land and provides water access and site security

**Objectives**

- Allowing families to be in contact with the earth and produce their own food to increase autonomy
- Promoting the principles and techniques of organic, biodynamic and environmental-friendly agriculture
- Fostering tolerance and solidarity between gardeners to create a knowledge-sharing community

**More on:**

www.perka.org
Academic research

Academic research in urban and peri-urban agriculture covers very diverse dimensions and disciplines, ranging from natural sciences (agronomy, chemistry, physics and biology) to social sciences.

Research and inventions in industrial ecology, hydroponic agriculture, biological control or biodynamic agriculture, among others, belong to the technological dimension of this thematic. Many science academies, research organisations and universities all over the world are dealing with agronomic research and introduce new technological methods to be applied in agriculture. Furthermore, architects and urban planners seek new responses to cities’ needs such as vertical farming or rebalancing metropolitan planning between urbanised, green and agricultural areas.

Social sciences also contribute to academic research with state-of-the-art articles on territorial development, on organisational innovation in urban and peri-urban agriculture, as well as with project assessments. The positive and negative externalities of natural and/or agronomic science findings, new architectural designs and urban planning models are discussed extensively in these publications.

While nutritional sciences deal with health issues (food systems, obesity), environmental and social sciences address ecological issues like pollution, soil quality or water recycling and propose to strengthen the link between urban and peri-urban agriculture and energy transition via permacultural and agroecological techniques or through the introduction of circular economy principles (i.e. long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling).

However, the most innovative aspect of research in urban and peri-urban agriculture is the integration of science and research into society by the transfer of this academic knowledge and its adoption by other stakeholders. This transfer requires a real collaboration between natural and social sciences with a “problem solving” perspective.

A selection of 6 best practices of academic research in urban and peri-urban agriculture in the MADRE metropolises is presented in the following pages.
The first phase of the project (2014-2016) evaluated an eco-innovative concept for improving the sustainability of buildings in urban environments and producing high quality vegetables. The Rooftop greenhouse Lab integrates energy, water and CO2 flows in the metabolism of the building, based on an industrial ecology approach.

Objectives

- Demonstrating the potential of rooftop greenhouses and quantifying their environmental, economic and social benefits, by applying life cycle assessment methods
- Developing a new horticulture production system for increasing the food self-sufficiency of Mediterranean cities
- Improving the sustainability of urban systems through the use of rooftop greenhouses, minimising the consumption of water, energy and CO2

Contact details

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- **Dr Xavier Gabarrell Durany**
  Senior researcher
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Location

ICTA-ICP, Z building, Campus UAB, 08193 Bellaterra (Cerdanyola del Vallès), Barcelona, Spain

Legal framework & Budget

Fertilecity is an academic institution that involves UAB-ICTA, UPC and IRTA. The first 2 phases of the project (2014-2016 and 2017-2019) received €700,000 from the Spanish Ministry of Economy and Competitiveness. UAB-ICTA, UPC and IRTA provide human resources for about €100,000 yearly.

Activities

FertileCity II will implement 10 tasks, organised into 5 blocks: system operation (T1) with the adaptation of experimental greenhouses to project requirements; technico-environmental characterisation of the system (T2-T6) focusing on infrastructure and materials, energy, water, CO2 and food; analysis of environmental and socio-economic sustainability of the system (T7-T8); global and prospective approach of the system in urban planning and building (T9); dissemination, transfer and exploitation of the project results (T10). This complex project requires a multi-disciplinary approach which is covered by the 3 research institutions involved in the project and by private companies providing technologies and services.

Innovation & Outcomes

Fertilecity finished its first tomato crop in July 2015, after 164 days, and its first winter tomato crop in March 2016, after 169 days. The rooftop greenhouse produces yearly 1.5 tons of tomatoes, more than 1,000 lettuces and other vegetables. Preliminary results of life cycle assessments show that this structure is between 17 and 75% higher than conventional greenhouses. The project introduces both urban (farming on unused roofs, reduction of the pressure on fertile soil, urban greening and multi-functionality) and technological innovation (building interconnection, energy modelling, use of agricultural waste and recirculation of water).

Main obstacles & Next steps

As a novel and complex project, Fertilecity is faced with some obstacles related to the legal framework, the technical building code, the economic investment and the environmental balance. In addition to scientific and technological developments, one of the main priorities of Fertilecity II will be to define suitable business models and transfer them to national and international entities.

More on:

www.fertilecity.com
**Abeille Project**

**OCTOBER 2015 - OCTOBER 2018**

Abeille is an action research project that aims to highlight the obstacles to the development of agro-ecological food systems in small municipalities of the Hérault and Gard Departments and to identify stakeholders' initiatives that could overcome these obstacles. Therefore, it analyses how agro-ecological and food issues are taken into account at territorial level and connects local authorities and researchers around this issue.

**Contact details**

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Researcher at UMR Innovation / INRA-SupAgro Montpellier
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**Location**
Departments of Hérault and Gard, Occitanie Region

**Stakeholders**
- Project leader: UMR Innovation (Research Unit of INRA-SupAgro Montpellier)
- Partner local authorities: Montpellier Méditerranée Métropole (Montpellier 3M), Authorised Agricultural Land Association (AFAA), Intercommunal Association of Coastal Ponds (SIEL), Saint-Dionisy Municipality
- Farmers of the studied municipalities

**Objectives**
- Spreading a culture of agro-ecology within studied municipalities through strengthened exchanges between institutional stakeholders, academia and farmers
- Co-designing operational indicators for the implementation of agro-ecological actions in the studied municipalities
- Observing and analysing innovative initiatives developed in studied municipalities to produce actionable knowledge

**Legal framework & Budget**
Abeille is funded by Fondation de France and Fondation Carasso. The project is coordinated by the AgriCités team of UMR Innovation and involves 3 institutional partners (Montpellier 3M, SIEL and Saint-Dionisy municipality).

**Activities**
Activities vary depending on the concerned municipality. The project first identified and characterised the agro-ecological dimension of studied initiatives from 3 complementary perspectives (farmers, consumers and institutional players) to produce actionable knowledge characterisation of farms, of governance models developed by local stakeholders for their initiatives, of learning tools and mechanisms, of inhabitants’ perceptions regarding local agriculture and its products, etc. The project then focuses on the facilitation of exchanges between stakeholders and the support to agro-ecological initiatives.

**Innovation & Outcomes**
Project outputs include a guide on agro-ecological initiatives and practices dedicated to local institutional players. It also produced a typology for the implementation of agro-ecology in farms of the studied Departments. Thanks to Abeille support, the Saint-Dionisy Municipality acquired land for organic agriculture in partnership with private entities (for instance Perrier/Nestlé) and started supplying school canteens with local organic food products. A farmer grocery store and community gardens applying agro-ecological practices were also created in Saint-Dionisy. In Villeneuve les Maguelone, local stakeholders are mobilising land for reconstituting “agricultural islands” dedicated to livestock and cereals production and defining production specifications for each farmer.

**Main obstacles & Next steps**
The main obstacle to support activities provided by the project is the mobilisation of land, as most landowners are reluctant to let their plots for a 9-year farm lease for farming in these peri-urban areas where demographic growth has led to continuous house building and rising land prices.
Urban associative gardens are, under various names, statutes and forms, expanding rapidly in many industrialised countries, particularly in France. From 2013 to 2016, the JASSUR research project (Urban Associative Gardens and Sustainable Cities) studied the functions, uses, modes of operation, benefits and potential dangers of these associative gardens in 7 French cities, including Marseille.

**Contact details**

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**Jean Noël Consalès**
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**Location**
Location: 7 French cities: Marseille, Lille, Lyon, Nancy, Nantes, Paris and Toulouse

**Stakeholders**
- Laboratory of Soil and Environmental Sciences (UL - INRA), TELEMMe (AMU - CNRS), EcoLab (University of Toulouse III), EcoSys (INRA - AgroParisTech), LCCgE (Lille ISA), IRSTV (Research Institute on Science and Technology for the City), Rural Studies Laboratory (Isara Lyon), NORT (INRA), SAD-APT (INRA), Plante&Cité
- Associations PADES (Self-Production and Social Development Programme), National Federation of Family and Collective Gardens

**Objectives**
- Studying practices, functions and risks associated with urban associative gardens with a transdisciplinary approach
- Creating a database with environmental, socio-technical and socio-political parameters for 7 cities
- Identifying the modes of action necessary to maintain, restore, develop or upgrade these associative gardens in urban areas faced with the challenges of sustainability

**Legal framework & Budget**
JASSUR is a research project involving 13 partners from research and associations. Its management was based on 3 levels: city level, task level and overall level. JASSUR was funded by the French National Research Agency (ANR) with €950,000 for a total cost of around €1,300,000. The project is labelled by Advancity and Végépolys clusters.

**Activities**
JASSUR was based on a central question: what services provide urban collective gardens? To answer this question, the project evaluated soil fertility and gardens’ biodiversity, as well as environmental and health risks due to potential pollution. Gardening practices were also analysed to assess the contribution of gardens to families’ food supply and nutrition. In parallel, the governance of gardens and their place in urban planning was studied to come out with recommendations of renewed management practices and biological soil remediation processes. In total, 104 gardens were investigated, including 36 in Marseille. In the latter city, a sub-study on the impact of urban gardening on nutrition and food consumption in disadvantaged neighbourhoods was conducted (Opticourses).

**Innovation & Outcomes**
JASSUR has produced several articles, book chapters and communications in national and international research publications. Results were also disseminated in 6 technical journals, 10 conferences, 2 workshops and recommendations to stakeholders and gardeners. The project has shown that, in view of their significant positive externalities, urban associative gardens need to be more integrated into urban policies. Its main innovation was its transdisciplinary approach.

**Main obstacles & Next steps**
In Marseille, a new research project, POMELO, has been launched to build on JASSUR results. It aims to mobilise people at home by installing vegetable planter boxes on private balconies. It will take place in the Belsunce neighbourhood in 2018. JASSUR led to several other collaborative projects and experimentations.
The Center for Advanced Studies on Consumption and Communication (Ces.Co.Com) was established in 2013 to analyse and promote the culture of sustainability and responsible consumption, new media, social and environmental communication and cooperation, participatory processes, urban regeneration and social innovation. It tackles urban and peri-urban agriculture from a consumer’s perspective, highlighting public participation as a key factor for this emerging economic opportunity.

Contact details

**Ces.Co.Com**

**SINCE 2013**

The Center for Advanced Studies on Consumption and Communication (Ces.Co.Com) was established in 2013 to analyse and promote the culture of sustainability and responsible consumption, new media, social and environmental communication and cooperation, participatory processes, urban regeneration and social innovation. It tackles urban and peri-urban agriculture from a consumer’s perspective, highlighting public participation as a key factor for this emerging economic opportunity.

**Objectives**

- Developing research, European projects and consultancy on sustainability, responsible consumption, social innovation, new media and participatory processes in collaboration with local authorities, institutions and communities
- Setting up an international collaborative network of Italian and foreign institutions, both public and private, sharing the same objectives
- Disseminating knowledge through conferences, seminars, meetings and publications
- Promoting advanced training courses

**Stakeholders**

- Municipality of Bologna and Metropolitan City of Bologna
- Cooperative supermarket networks such as Conad and Coop Alleanza 3.0
- Companies, business association and Foundations engaged in corporate social responsibility
- Italian and foreign universities and research institutes

**Legal framework & Budget**

Ces.co.com is part of the Department of Sociology and Economic Law of the University of Bologna, which is a public entity. It supports the Municipality of Bologna in its sustainable and responsible consumption plans with studies, research projects, monitoring, social and environmental impact assessments.

**Activities**

CesCo.Com has 3 main areas of activity: research projects, higher education programmes and advice to the Municipality of Bologna and other stakeholders in the implementation of actions related to sustainability and responsible consumption, new media, social and environmental communication and cooperation, participatory processes, urban regeneration and social innovation. As far as urban and peri-urban agriculture is concerned, CesCo.Com investigates the relation between organic values and alternative food networks, for instance in terms of trust in organic farming practices and trust building among the members of Community Supported Agriculture groupings and alternative food networks. CesCo.Com also offers a University Master in “Enogastronomy and hospitality” as well as a permanent course in “Social farming” to support these growing sectors, in partnership with local and regional authorities.

**Innovation & Outcomes**

The topics investigated by CesCo.Com are quite new and innovative. Innovation is also in the interdisciplinary approach adopted by CesCo.Com and based on collaborations with experts from other national and international scientific fields. CesCo.Com has a strong influence on public authorities’ decisions. For instance, it contributed to the Urban Innovation Plan of the Municipality of Bologna, advocating for an integrated management of local, regional and national funds for urban regeneration.

**Main obstacles & Next steps**

CesCo.Com approach to research is replicable in other territories, in accordance with universities’ organisation and rules. The Center is carrying out several citizen participation actions in collaboration with the Municipality and academics, but not on urban and peri-urban agriculture related topics yet, which they are expecting to develop in the future.
Education to gardening for deaf children

April 2016

Founded in 1963, the Deaf Children Institute is the only public institute for deaf and hard-of-hearing students in Albania. It has about 100 students coming from all over the country and provides preschool and 9-year education. The Institute has pioneered research, education and therapeutic efforts to improve the lives of deaf children. Its programme is developed with appropriate equipment, tools and methods to facilitate learning. Educational activities outside the classroom are crucial for the acquisition of complex skills and knowledge. So, some teachers had the idea to involve students as cultivators in the Institute garden.

Stakeholders
- 3 teachers and 30 students (from 7 to 15 years old) of the Deaf Children Institute
- Ministry of Education, on which the Institute depends

Objectives
- Raising the awareness of students on farming and gardening, and empowering them to develop related activities
- Offering deaf and hard-of-hearing children an alternative therapy and a relaxing activity
- Facilitating their understanding of the links between natural systems, food production, diet and human health
- Developing a green area and producing fresh food within the Institute

Contact details
Deaf Children Institute
email: institutinxnesveqenukdegjojne@yahoo.com

Location
Rruga e Dibrës, Në krah të Medresesë. 1001
Tirana, Albania

Legal framework & Budget
The Deaf Children Institute is a public institution depending on the Ministry of Education. It employs around 70 academic and non-academic staff. 3 teachers are involved in the gardening initiative. The latter was initiated by school teachers with their own funds, then supported by children’s parents.

Activities
Inside the Institute courtyard is a garden of around 30 square meters, which was partly planted with flowers and partly unused. Three teachers decided to cultivate this garden with their students. Thirty deaf and hard-of-hearing children from the age of 7 to 15 are benefiting from this activity twice a week. They plant flowers, take care for pigeons in a dovecote and grow some vegetables. The small quantity produced is used in the Institute canteen.

Innovation & Outcomes
This initiative brings about educational and therapeutic innovation as it experiments farming and gardening as a new therapeutic tool for deaf and hard-of-hearing children. This activity could also be beneficial for children with autism or Down syndrome. The main goal behind it is to enable children with disability to gain confidence in their skills and capacity and to join mainstream education.

Main obstacles & Next steps
The main obstacles for this initiative are the lack of agronomic knowledge of teachers and the lack of funds to buy seeds and other agricultural inputs. The financing of activities outside the curriculum approved by the Ministry of Education is a major problem. In the future, teachers are planning to seek support from international institutions such as GIZ, USAID, etc.
Make your own garden at the University Farm

SINCE APRIL 2012

The initiative started in April 2012 as the Aristotle University of Thessaloniki (AUTH) embarked on an ecological strategic plan to become the first green University. The idea was also to open the university to the public, to make better use of its facilities and to address the lack of open space to grow vegetables in Thessaloniki. Within a total area of 6 hectares, 100m² land plots are allocated annually through open calls to city dwellers, for a maximum duration of 3 years.

Contact details

Dr. Anastasios Lithourgidis
Director of the University Farm
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Aristotle University Farm of Thessaloniki, 57001 Thermi, Thessaloniki, Greece

Stakeholders

- School of Agriculture and Rectorate authorities of AUTH, Aristotle University Farm of Thessaloniki
- 2,000 city dwellers with various backgrounds (25% civil servants, 30% private employees, 30% unemployed and 15% retirees) who have been allocated a plot of land to grow vegetables for self-consumption
- 24 AUTH students who work every year in the gardens

Objectives

- Bridging the gap between University and society
- Raising awareness on environmental issues and organic farming among the population
- Re-connecting people with the land and the cycles of nature
- Helping university students to get some field experience
- Set up the AUTH ecological strategic plan to become the first green University while preserving land integrity

Legal framework & Budget

This initiative is implemented by AUTH, which employs an agronomist and 2 farm assistants throughout the year, as well as 24 undergraduate students for 3 months to assist amateur gardeners. The latter pay an annual fee of € 120 for using a land plot and university infrastructure (free water provision), enabling the initiative to be self-financed.

Activities

Today, more than 500 plots of land are being cultivated by almost 2,000 city dwellers. There is no criteria for plot allotment but gardeners must comply with the principles of organic farming and attend a series of seminars on sustainable and environmental friendly practices. Students, the agronomist and the 2 farm assistants provide daily advice and support to gardeners. The latter have to bring their own tools but seeds and seedlings can be provided by the University Farm at a very low price. The seeds and seedlings include commercial varieties, hybrids and some Greek local varieties and landraces. Humus and manure are used for plant fertilisation.

Innovation & Outcomes

The initiative is great success with city dwellers, despite the hardly accessible location. The number of applications reached 450 once. For some candidates, it is all about the pleasure of gardening. For others, it is a way to have access to fresh and organic vegetables. A few ones also see it as a professional perspective. The benefits are two sided as it is also a great opportunity for students to practice by assisting gardeners in growing their own vegetables.

Main obstacles & Next steps

The main obstacle faced by the initiative is the lack of knowledge and collaboration of some gardeners. The seminars conducted on site are intended to educate them to organic farming practices and provide them with hands on experience. The next step is to increase the number of plots to make the best use of the available area. AUTH will also keep disseminating its knowledge and communicating with citizens about environmental-friendly land management to fight against land pollution.

More on:
www.agroctima.auth.gr

Objectives

- Bridging the gap between University and society
- Raising awareness on environmental issues and organic farming among the population
- Re-connecting people with the land and the cycles of nature
- Helping university students to get some field experience
- Set up the AUTH ecological strategic plan to become the first green University while preserving land integrity

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture

1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
4. Quality upgrading and value creation
5. Organisational benefits
6. Territorial integrity/land management
7. Environmental benefits
8. Synergies

Stakeholders

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More on:
www.agroctima.auth.gr
Territorial innovation

In his report “Innovation in power! Reinventing public action for territories” (2015), Akim Oural defines territorial innovation as “a new response to a problem and/or need collectively identified in a territory, with a view to improving well-being and sustainable local development”.

Urban sprawl is a real issue for both urban planners and rural populations as fertile agricultural land disappears due to the rapid spread of urban construction and the expansion of metropolises on their rural hinterland. Besides, agriculture, which used to be the main economic activity in rural areas, is weakened.

Urban and peri-urban agriculture is therefore becoming an important factor for supplying food to city dwellers and for reconnecting city and nature. Local, metropolitan, regional and national authorities try to find new solutions to this challenge. On the one hand, urban planners plead for a better cohabitation of urban development with rural agricultural activities in villages surrounding metropolises. On the other hand, some local authorities adopt programmes to support urban agricultural activities.

The following models of urban and peri-urban agriculture are being developed in metropolises all over the world:

- Spread of rooftop, community and family gardens within the metropolis to foster the self-supply and self-consumption of farmer-citizens;
- Construction of vertical farms using hydroponic techniques in large megalopolises: this model eliminates, in a sense, traditional farmers and brings-in agricultural engineers and technicians as it is based on a rather industrial and technology-intensive approach of agriculture;
- Development of greenbelts around metropolises to protect remaining farmland and stop further urban sprawl.

The MADRE project favours initiatives supporting rural-urban linkages and the development of metropolitan greenbelts to vertical farming, which is considered less suitable for the cultural and natural characteristics of Mediterranean metropolises.

You will find a selection of 6 best practices of territorial innovation in urban and peri-urban agriculture in the MADRE metropolises in the following pages.
Baix Llobregat Agrarian Park

**Legal framework & Budget**
Baix Llobregat Agrarian Park is based on 3 instruments: the Special Plan, an urban planning tool that delimits the Park area, regulates its use and defines its general infrastructure; the Management and Development Plan, which sets the strategy, specific objectives and resources for the operation of the Park; the Managing Body, which manages the entire agricultural area and supports farms in their development. The Consortium employs 11 full-time workers. Its annual budget is around € 1 million.

**Activities**
The main missions of the Managing Body are to improve the road network, the drainage network and the quality of irrigation water, to ensure security inside the Park, to promote new agricultural techniques, especially environmental friendly ones and to support farmers in production and marketing activities. Farmers' markets are organised with 8 different municipalities. The Park also implements various projects to educate children and the general public on agricultural, food and health issues, as well as to promote Baix Llobregat products to consumers.

**Innovation & Outcomes**
Thanks to its successful public-private model and to the strong political will of the local authorities involved, the Park achieved to maintain agricultural land and production in the Barcelona Metropolitan Area. It also contributed to foster sustainable farming practices (over 80% of the Park production is under ‘integrated agriculture’), to develop short marketing channels such as farmers’ markets and to raise citizens’ awareness on the importance of local agriculture.

**Main obstacles & Next steps**
The main obstacle is the availability and price of land. The Park created an instrument to put buyers or tenants in contact with sellers. It also prepares plans and reports to inform stakeholders on land uses, construction permits, business licenses, etc. Another key role of the Consortium is to mediate and build bridges between agents with competing interests. Generational renewal is another important issue. The Park works with an Agrarian Training Centre to create links between agricultural students and farmers.

**Stakeholders**
- Barcelona Province, Baix Llobregat County, 14 local authorities. Catalonia’s Department of Agriculture, Food and Rural Action. Baix Llobregat Agrarian Park Consortium
- Unió de Pagesos (Farmer’s union), which is also member of the Consortium
- Agricultural cooperatives. 3 Associations for Vegetal Defence (ADV) and 8 Farmers’ markets
- Baix Llobregat Tourism Consortium and 42 restaurants for the Sabor’s del Horta project, which promotes Baix Llobregat products
- Various NGOs such as Fundació Sigea, Som Bici and Hand Made Theatre for educational activities
- 17 public libraries for the L’Hort a la Biblioteca project (the Garden at the Library)
- R&D projects with Fundació Miquel Agustí and Agrarian training centres

**Contact details**
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  Project Coordinator, Diputació de Barcelona
  Email: francesig@diba.cat
- Masia de Can Comas. Apartat de Correus 76. 08820 El Prat de Llobregat, Barcelona, Spain

**Objectives**
- Consolidating and developing the territorial base of agriculture in the Barcelona Metropolitan Area
- Developing specific programmes to promote a sustainable agriculture, integrated into its territory and in harmony with its natural environment
- Promoting the productive, ecological and cultural values of the Baix Llobregat Agrarian Park

**Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture**
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2. Social inclusion
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5. Organisational benefits
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7. Environmental benefits
8. Synergies

More on:
http://parcs.diba.cat/web/baixllobregat
Mercadis

Wholesale markets of national interest (MIN) were established in France in the early 1960s to bring physically together sellers (producers, wholesalers and importers) of fresh produce and food products and buyers (wholesalers, retailers, open market merchants, caterers, restaurants, industries and purchasing centres for large retailers). This unity of place, time and people shortens supply chains, reduces material use and facilitates transactions. Founded in 1965, Mercadis is one of the 18 MIN. It has now become a pioneering wholesale market in the promotion of local and organic agriculture.

Contact details

Olivier Lauro
General Director of Mercadis Somimon
email: somimon@mercadis.net

Opening hours
Monday, Wednesday and Friday 15:00 - 17:00

Location
281 avenue du Marché Gare, 34070 Montpellier, France

Stakeholders
- Somimon, managing company of Mercadis
- Montpellier 3M, the City of Montpellier and the Herault Department
- 220 producers, wholesalers, processors and logistic companies, and 3,000 retailers, caterers and restaurant owners from the Montpellier area
- Restos du Cœur, UMR Innovation (Research Unit of INRA-SupAgro Montpellier) and the Regional Directorate for Food, Agriculture and Forestry (DRAAF Occitanie) for research and experimentation projects

Objectives
- Putting buyers and producers in direct contact to establish fairer prices
- Improving and diversifying the use of agricultural products by establishing a food processing pool in the wholesale market
- Developing an energy efficient urban logistics system by integrating small trucks for deliveries within the city area

Legal framework & Budget
Mercadis is managed by the semi-public limited company Somimon. Montpellier 3M, the City of Montpellier and the Herault Department own 58%; Caisse des Dépôts 24%; Crédit Agricole Regional Bank, the Chamber of Agriculture and the Chamber of Commerce and Industry of Herault 18%. Mercadis employs around 500 workers and generates some 3,500 indirect jobs. Its annual turnover was about € 2.7 million in 2016.

Activities
Around € 120 million of transactions are completed annually at the market. In May 2016, Mercadis signed an agreement with Montpellier 3M committing to procure at least 40% of products from Languedoc-Roussillon. In addition to its conventional Producers’ Floor, it launched a ‘Bio & Local’ Floor in November 2017, where about 30 farmers offer local seasonal produce, including 10 organic farmers. In early 2017, it also inaugurated a 1,500 m2 processing centre, where 6 companies process local fruits, vegetables, meat and seafood. Mercadis acts as an incubator, shares the risks associated with investments and offers shared services. Today, the centre employs nearly 50 people (15 of whom are in integration).

Innovation & Outcomes
Mercadis is actively engaged in sustainable development. The pooling of deliveries reduces the number of vehicles and the proximity to the city centre allows for environmentally-friendly means of transport. 80% of the waste produced on the market is recycled. With the support of ADEME, Mercadis also installed photovoltaic panels. Finally, local farmers’ leftovers are given to local food aid associations.

In 2011-2012, Mercadis, Restos du Coeur and INRA-SupAgro experimented the local supply of free meals and food to vulnerable households. The project showed very positive results.

Main obstacles & Next steps
Buying centres of large retailers are the main obstacle to the continuity of small farming and the local sourcing of agricultural products. Mercadis aims to strengthen its position of trading platform for local production to increase the bargaining power of independent farmers. It also intends to increase the local supply of fresh produce from 40% to more than 50% in the coming years.

More on:
www.mercadis.net
Territorial Food Project

The Territorial Food Project (PAT) of Bouches-du-Rhône was initiated by Aix-Marseille Provence Metropole and Pays d’Arles in the context of the national call for projects launched by the Ministry of Agriculture in 2016. It was not selected at the national level but at the regional level. The PAT is now being developed over a 36-month period in order to meet the labelling criteria defined by the Ministry of Agriculture.

Contact details

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Alexandre Lautier - Head of Environment and Food Dpt, Aix-Marseille-Provence Metropole
email: alexandre.lautier@ampmetropole.fr

Location
Territory of Aix-Marseille Provence Metropole and Pays d’Arles

Stakeholders
- Elected representatives of Aix-Marseille Provence Metropole, Pays d’Arles and municipalities and technical staff of working on relevant topics
- Co-funding institutions: Bouches-du-Rhone Department, French State, Provence-Alpes-Côte d’Azur Region
- Chamber of Agriculture, Chamber of Commerce and Industry, Chamber of Trades, Regional Chamber of the Social and Solidarity Economy, Natural Parks
- Representatives of research institutions, local associations and the private sector

Objectives
- Promoting all forms of quality, local and eco-friendly agriculture
- Preserving agricultural land and landscapes of Provence through the creation of agrarian parks
- Bringing production closer to consumption
- Ensuring farmers’ quality of life and recognition
- Promoting access to quality local products and healthy food for everyone
- Promoting the local food heritage through the Mediterranean diet
- Positioning agricultural and food policy at the heart of the territorial project

Legal framework & Budget
Territorial food projects were introduced by the French Law for the Future of Agriculture, Food and Forestry (LAAF) of 2014 and formalised by an instruction of the Ministry of Agriculture, which defines the objectives, scope, content and development process of territorial food projects. The preliminary budget of the PAT of Bouches-du-Rhône for 2017-2020 is € 440,000. The main funders are AMP Metropole, Bouches-du-Rhône Department, SUD Region, DRAAF SUD, Pays d’Arles and DREAL SUD.

Activities
The PAT of Bouches-du-Rhône will focus on 5 challenges: economy and employment; nutrition, health and social accessibility to quality food; urban planning and development; environment; Food and cultural heritage. Over a 36-month period, it will launch an ambitious agricultural and food strategy for the territory. This process involves the following steps: the development of an agricultural and food diagnosis of the territory; the selection of demonstrative projects and their accompaniment; the launching of a thematic project on out-of-home catering; the implementation of communication actions to promote these actions.

Innovation & Outcomes
The main innovation of the PAT of Bouches-du-Rhône is its collaborative governance, co-led by Aix-Marseille Provence Metropole and Pays d’Arles, and its participative development approach. It involves representatives of the entire agricultural and food chain in a continuous diagnostic process, allows actors who do not meet to work together and promotes the multitude of initiatives, public or private, large or small, existing throughout the entire territory.

Main obstacles & Next steps
The main obstacle is access to agricultural land due to peri-urban pressure and the need for a strong political backing. Effective governance and coordination between all stakeholders of this territorial food system will be a key factor of success for the PAT of Bouches-du-Rhône.
Le Serre dei Giardini Margherita

The former municipal greenhouse had been abandoned for 10 years. The Municipality of Bologna decided to open a call for tenders to rehabilitate it. Kilowatt was entrusted with this mission in 2013 and transformed the site into a place of experimentation and a new platform for many local activities, including urban agriculture, circular economy, training, entrepreneurship and innovation.

Stakeholders
- Kilowatt cooperative company, which rehabilitated and manages the site
- Municipality of Bologna, owner of the land and buildings and project sponsor, and Emilia-Romagna Region, project sponsor
- Golinelli Foundation and ASTER, which manage the business platform
- Snark startup, which supports initiatives, community building and facilitation
- VETRO, the natural eating bistro which manages food services
- KwGAS Solidarity Purchasing Group

Objectives
- Regenerating a derelict inner-city site and its greenhouse function
- Capitalising on urban agriculture and the circular economy for urban regeneration
- Mobilising citizens who want to test a shared and sustainable model of urban agriculture and green space management and to design new services for the community
- Experimenting a social and cultural community hub and creating a new platform for business incubation and acceleration

Activities
Le Serre is a multi-functional place, made of a 600 sqm community garden (gARTen), a natural eating bistro (VETRO), a Solidarity Purchasing Group (KwGAS), a co-working space, a daycare centre (KwBaby) and summer events (KwSummer). Since 2017, the community garden is managed by a professional gardener whose daily mission is to train the community on organic farming techniques. A small part of crops is dedicated to the VETRO bistro. Kilowatt also develops social and art activities with associations established in the neighbourhood. Finally, Le Serre hosts a space for start-ups and entrepreneurs.

Innovation & Outcomes
Le Serre is a collaborative public space where private actors, public bodies and civil society successfully coexist for developing new services for the community. Innovation is also in the management model, a mix of entrepreneurial spirit, social innovation and community building. Thanks to political will of the Municipality and Region, a 600 sqm community garden has been developed. It has about 300 members and organises 2 events on organic farming per month. Since 2016, Le Serre has organised 150 free cultural events and hosted more than 55,000 visitors.

Main obstacles & Next steps
The prerequisite to this initiative was to set up a public-private partnership and initiate collaboration between innovators, citizens, public administration and the social economy. This social, professional and educational model is sustainable as it responds to new needs in an inclusive way. Le Serre is now developing further its social and business related activities.
Green Belt of Tirana

In 2016, the Municipality of Tirana launched the Plan “Go Tirana 2016-2026 Smart City”, which includes the rehabilitation of clear cut and degraded forests in the Green Belt of Tirana through the planting of 50 hectares of fruit trees. The Green Belt of Tirana covers an area of 40,000 hectares and is inhabited and/or visited by roughly 1 million people annually. The plantation of a continuous belt of fruit and decorative trees is planned to expand the green surface around the city and ensure territorial cohesion.

Contact details

Location
Outskirts of Tirana (area of Farkë)

Stakeholders
- Tirana Parks and Recreation Agency
- Municipality of Tirana
- Farmers and farmers associations
- Donors

Objectives
- Rehabilitating clear cut and degraded areas of the Green Belt of Tirana, as well as existing parks
- Increasing the green surface per inhabitant ratio in Tirana, mobilising public and private land
- Establishing a real and functional Green Belt in the city outskirts to improve air quality and maintain biodiversity
- Enabling the development of recreational activities, including hiking, trail running, mountain climbing, etc.

Legal framework & Budget
The project is implemented by Tirana Parks and Recreation Agency. The total cost for the rehabilitation of 50 hectares of forests is estimated at €1,200,000 (excluding VAT). The Municipality of Tirana, through the Tirana Parks and Recreation Agency, will cover approximately 15% of the total budget. The project will generate numerous jobs for planting trees and maintaining this new green space.

Activities
The project involves the planting of shrubs and fruit trees to control soil erosion, steep slope works, and reinforcements with concrete belts and panels with stones in gabion. To increase the green surface, the Municipality is also financing the plantation of fruit trees in private gardens of houses that have recently been built in the area, in agreement with inhabitants. The project started in 2016 in the area of Farkë, a recently urbanised area on the outskirts of Tirana.

Innovation & Outcomes
This project is innovative as it rehabilitates and maintains a green area that is subject to illegal dwelling. By involving existing dwellings, the Municipality shows its will to keep the integrity of the area, to reduce the fragmentation of green space and to protect recreational parks in Tirana. The project is in the first stage of implementation: it started in December 2016.

Main obstacles & Next steps
The main obstacle faced by the project was to reach a common agreement with all private owners regarding the surface to be planted, the type of fruit trees, etc. It was overcome thanks to the intervention and political will of the Municipality of Tirana. In the future, the area will be provided with new recreational infrastructure for the population of Tirana.
Legal framework & Budget

The registration process enables farmers to sell processed food products and thereby develop their activity for commercial purpose. This initiative is based on Greek Law 4235/2014, as amended by the 46th Article of the Greek Law 4384/2016, as well as on the Ministerial Decision 4912/20862/05.11.2015, as amended by the Ministerial Decision 345/23924/16.03.2017.

Activities

After successful registration in a specific registry, farmers are assigned a dedicated space within a cottage where processing can take place, adding more value to their fresh agricultural products. Cottage products are then sold on local markets, increasing their visibility. This marketing system invites consumers to support local artisanal food businesses and to discover or rediscover local varieties and tastes.

Innovation & Outcomes

This initiative was the first of its kind in Greece. Local authorities support the local food system through collaboration with farmers for their registration and sanitary controls of food production. This initiative also supports farmers’ families through the involvement of other family members in processing and selling activities. Finally, it has a positive impact on the environment as it contributes to land management for the cultivation of fruits and vegetables that more suitable for processing.

Main obstacles & Next steps

The main obstacle was to overcome the barrier for entrepreneurs and farmers in peri-urban areas to be authorized to sell their products to local consumers. The current experimentation shows positive results. The structuring of the local cottage industry through top-down public support led farmers to increase their business, to have a wider consumer base and to strengthen community bonds in their region.

Contact details

Margarita Karavangeli
Hellenic Food Authority
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Location
Thessaloniki Metropolitan Area and all over Greece

Stakeholders

- Hellenic Ministry of Rural Development and Food
- Hellenic Food Authority and Single Food Control Agency (EFET)
- Services of Regional Units and Municipalities
- Local farmers

Objectives

- Exploiting the production and increasing the added value of local farmers through processing
- Increasing farmers’ income and fighting unemployment at family level
- Promoting agricultural products and introducing consumers to local tastes
- Preserving local varieties and traditional food processing methods

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture

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8. Synergies

More on:
http://portal.efet.gr/portal/page/portal/efet
Transnational innovation

Many projects on urban and peri-urban agriculture initiate transnational networking. Most of these initiatives are creating linkages between Northern and Southern countries where urbanisation is more a population explosion in cities led by rural out-migration than the sprawl of urban centres in their hinterlands. This proliferation of urban populations brings along the major issue of food security in cities and the problem of food supply to the most vulnerable population groups.

However, since the mid-1990s, which were marked by unprecedented food scandals, urban and peri-urban agriculture has received renewed interest in industrialised countries and cooperation projects between Western metropolises developed at a rapid pace, supported by available international funds. These initiatives aims at raising awareness, exchanging best practices and advocating for better policies.

A number of NGOs and other associations are working at world or macro-region level, such as the International Urban Food Network or the RUAF Foundation. Some international networks are dedicated to a specific type of stakeholders, others are open to various categories. European projects, especially in the field of territorial cooperation, are also a good opportunity for local authorities and other actors from different territories and countries to learn from one another.

You will find a selection of 6 best practices of transnational innovation in urban and peri-urban agriculture in the MADRE metropolises in the following pages.
Legal framework & Budget
The launching process was supported from 2015 to 2016 by the EU-funded project “Food Smart Cities for Development”, led by the City of Milan and involving 12 other urban areas, including Barcelona, Marseille and Thessaloniki. The MUFPP keeps an informal constitution. Its Steering Committee is composed of 13 members, elected by signatory cities with a 2-year mandate. A Technical Secretariat was established within the Mayor’s office of the City of Milan. Foundations such as Cariplo provide some funding for activities.

Activities
The MUFPP provides a Framework for Action, including 37 recommended actions structured in 6 categories: Governance; Sustainable diets and nutrition; Social and economic equity; Food production; Food supply and distribution; Food waste. Since 2016, the Secretariat organises the Milan Pact Awards to reward signatory cities’ best practices and foster collaboration among them. The MUFPP is working with FAO on a Monitoring Framework, based on 42 quantitative and qualitative indicators related to the Framework for Action, as well as on an Urban Food Action Platform, to collect and share good practices. Finally, the MUFPP advocates at the global level on the role of cities in tackling food issues.

Innovation & Outcomes
The main innovation of the MUFPP is that, through a non-binding agreement, it encourages cities to adopt an integrated approach on urban food issues. Its impact is based on experience-sharing and a toolkit allowing cities to assess their progress and get ideas of possible solutions. Two MADRE cities are showcased among the good practices: Barcelona for its modern markets and “good living” strategy and Montpellier for the partnership developed between policymakers and researchers for policy formulation.

Main obstacles & Next steps
The main challenge is to work with so many cities with different economic, social and political contexts and priorities. Signatory cities are working to finalise the monitoring framework, to develop the Urban Food Action Platform, to promote cooperation at regional level and to boost the role of the Pact in the global debate.
Legal framework & Budget
Agri-Urban is an URBACT project. URBACT is a European Territorial Cooperation programme aiming to foster sustainable integrated urban development in cities across Europe. The 11 partner cities signed a Joint Convention to formalise the network. The total project budget is € 651,814, with EU contribution of € 516,359.80.

Activities
Phase 1 focused on the analysis of the problem tackled, the involvement and mapping of local stakeholders, and the development of the Baseline Study. In Phase 2, each city will animate a Local Group, which will meet 8-10 times and define needs, interventions and sustainable policies for the revitalisation of the agri-food sector. The final result of this process will be consolidated in an Integrated Action Plan, which will cover 4 main themes: short circuits, smart land use and urban-rural linkages, business development of SMEs, public procurement. Transnational exchange and learning activities will seek alignment of actions and policies that impact the food system, but giving flexibility to partner cities to mainstream the outcomes to their local reality.

Innovation & Outcomes
AGRI-URBAN can powerfully contribute to its objectives since it only involves small and medium-sized cities that show strong links between the urban and the rural environment. For this reason, they can exploit the opportunities offered by rural areas to create jobs in the agri-food sector and improve the overall sustainability of their ecosystem, while injecting in their urban fabrics elements of rurality. It is an ideal category to test new strategies to reinforce the urban-rural linkage.

Main obstacles & Next steps
Policymakers’ engagement is a prerequisite for the project success. Activities dedicated to elected officials will be organised to ensure the revision of municipal regulations and the allocation of appropriate resources for food-related policies. The project will also develop a stakeholders’ network (agri-net), which main missions will be to provide a permanent table of discussion, to connect stakeholders and transfer needs, to develop project proposals for regional, national and EU funding and to disseminate useful information.

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Stakeholders
- 11 partner cities: Baena (Spain), Fundão (Portugal), Pyli (Greece), LAG Pays des Condruses (Belgium), Südertälje (Sweden), Cesena (Italy), Abergavenny (United Kingdom), Mollet del Vallès (Spain), Jelgava (Latvia), Petrinja (Croatia) and Mouans Sartox (France)
- Local stakeholders and participants in the network activities: associations, trade associations, farmers and businesses, research and training institutes

Objectives
- Creating jobs through an integrated approach, taking advantage of the economic, social and environmental opportunities derived from innovative ways of farming and producing food
- Promoting cross-learning at international level between a group of cities and other interested third parties
- Creating an Integrated Action Plan for each member city, covering short circuits, smart land use, business development of SMEs and public procurement

Assessment against 8 key challenges for Metropolitan and Peri-urban Agriculture
1. Job creation
2. Social inclusion
3. Educational, health and nutritional benefits
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6. Territorial integrity/land management
7. Environmental benefits
8. Synergies

More on:
http://urbact.eu/agri-urban
URGENCI

Since 2004, the International Network for Community Supported Agriculture (URGENCI) brings together citizens, small farmers, consumers, activists and concerned political actors at global level through an alternative economic approach called Local and Solidarity-based Partnerships between Producers and Consumers (LSP) as a way to maintain and develop family-scale organic farming and to achieve local food sovereignty for each region and each community. URGENCI promotes all forms of LSPs, all kinds of Community Supported Agriculture (CSA) initiatives, as a solution to the problems associated with global intensive agricultural production and distribution.

Objectives

- Communicating the benefits of Community-Supported Agriculture (CSA) and its vital role in the radical transformation of the food system
- Building nourishing personal and organizational relationships, as well as strategic alliances to develop CSA globally
- Supporting and empowering local, national, and continental CSA networks in all their diversity
- Enabling knowledge-sharing between all actors, especially farmer-to-farmer

Stakeholders

- Regional and national CSA networks gathered within URGENCI
- Small farmers involved in LSP and CSA initiatives
- Other NGOs involved in the promotion of agroecology and food sovereignty
- Research institutes such as INRA in France for joint studies
- Local, regional and national public authorities, main target groups of policy advocacy activities

Legal framework & Budget

URGENCI is a non-profit association, which brings together national CSA networks. Its head office is located in Aubagne (France). The salaried team consists of a General Delegate, a Coordinator and a part-time accounting manager. Some hirings are underway to face the diversification of the network missions. The annual budget is around € 200,000, mostly funded by the European Commission, Charles Léopold Mayer Foundation, Bread for the World and FAO.

Activities

URGENCI promotes experience-sharing through farmer-to-farmer and network-to-network meetings at different levels, as well as a mentoring programme, a contact directory of trainers, online tools and webinars. Thanks to the support of FAO, a pilot project of exchange of good practices is being implemented in the Mediterranean area, where CSA was underdeveloped. The network also provides a database of all its members and allies, encourages action-research on the challenges and impacts of CSA and disseminates the results. Finally, URGENCI coordinates a global advocacy process, starting from the base and resulting in policy papers, publications and other dissemination activities.

Innovation & Outcomes

In the Mediterranean area, CSA-like initiatives have blossomed as a consequence to URGENCI’s experience-sharing activities: in Morocco with Swani Tiqa, in Croatia with a network of 15 LSPs involving 9 farms and a thousand consumers, and in Greece where fair local food initiatives are expanding. URGENCI also contributed to the strengthening of experienced CSA networks such as AMAP in France and GAS in Italy, and opened up their activities to cooperation with new initiatives.

Main obstacles & Next steps

The proliferation of LSP and CSA initiatives is proof of the dynamism and creativity of citizens to propose a concrete alternative to food commercialisation on the world market. However, in the absence of public financial support, some networks operate in very precarious conditions at a time when missions are multiplying. URGENCI is confronted with the need to secure its economic model by increasing membership fees and diversifying funding sources.

Stakeholders

- Regional and national CSA networks gathered within URGENCI
- Small farmers involved in LSP and CSA initiatives
- Other NGOs involved in the promotion of agroecology and food sovereignty
- Research institutes such as INRA in France for joint studies
- Local, regional and national public authorities, main target groups of policy advocacy activities

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More on:
https://urgenci.net
ResCUE-AB

Urban gardens have been a subject of research and training for a long time in Bologna. In 2013, the Department of Agricultural Sciences of the University of Bologna established a Research Center in Urban Environment for Agriculture and Biodiversity (ResCUE-AB) to deepen analyse this phenomenon. The Center aims to turn Bologna into a widespread ecological laboratory and to create a transnational network of experiences in urban agriculture and ecology.

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Stakeholders

- University of Bologna, which manages ResCUE-AB
- Other universities and research centres involved in the network from Italy, Hungary, Spain, Germany, France, Turkey, Netherlands and Malta
- NGOs involved in the network: Biodiversity (Italy), Tierra Integral (Spain), Workstation Berlin (Germany), RUAF Foundation (Netherlands)
- Private entities collaborating with ResCUE-AB: CAAB - Agrifood Center of Bologna, Horticity, STEPs, Mammutfilm (Italy), Hei-Tro (Germany) and Vegepolys (France)
- Municipality of Bologna

Objectives

- Setting up of a shared eco-laboratory to promote and coordinate diverse and international studies and researches related to urban, social and sustainable agriculture, biodiversity, food quality and green infrastructure
- Creating a knowledge-based decision-making tool on urban agriculture and eco-innovation
- Promoting urban agriculture as a key driver to be included in programming policies at local, regional, national and international levels

Legal framework & Budget

ResCUE-AB is part of the Department of Agricultural Sciences of Alma Mater Studiorum University of Bologna. The director is Professor Giorgio Prosdocimi Gianquinto.

Activities

ResCUE-AB activities include: cooperation with national and international research groups, dissemination and training through conferences and seminars such as the Greener Cities Symposium, publications and materials dedicated to the scientific community or the general public, support in the design and implementation of programming policies at local, regional, national and international level. ResCUE-AB coordinates the European project “Urban Green Train" and implements several other activities related to rooftop farming, indoor cultivation, urban biodiversity, simplified hydroponics, pollution, education and training, Life Cycle Assessment and ecosystem service provision.

Innovation & Outcomes

ResCUE-AB is an innovative initiative for its transnational, cross-cutting and multidisciplinary approach of urban agriculture. It investigates various topics such as growing with organic, permaculture and synergistic methods, alternative cultivation systems, or job creation for disadvantaged groups through social and local agriculture. Through its researches and projects, the Center already contributed to the development and management of green spaces and agriculture in urban and peri-urban areas.

Main obstacles & Next steps

Among other projects, ResCUE-AB is supporting the Municipality of Bologna in the implementation of the SALUS SPACE project, co-financed by the European Urban Innovative Actions Initiative. ResCUE-AB will develop social and urban agriculture in the former clinic “Villa Salus”, which was abandoned for years. The aim of the overall intervention is to create an experimental site for social innovation through a participatory design process, with a generative and intercultural welfare approach.

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More on:
http://rescue-ab.unibo.it
The project URBAN GREEN TRAIN (UBRNAG GREEN Education for ENTrePRising Agricultural INnovation) was designed to encourage pioneering business-oriented initiatives in urban agriculture through knowledge exchange and mutual cooperation between SMEs, policy-makers and higher education institutions. The project developed lifelong learning opportunities through a flexible path that can be entered at different life stages.

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Stakeholders

• Partner academic institutions: University of Bologna (Italy), agreenium (France), University of Applied Sciences Südwestfalen (Germany)
• Private partners: Mammut Film, STEPS and Grow the Planet (Italy), Vegepolys (France), Heitro GmbH (Germany)
• Partner NGOs: RUAF Foundation (Netherlands - International network and leading centre of expertise in the field of urban agriculture and city-region food systems), HORTICITY (Italy)

Objectives

• Strengthening the knowledge triangle between education, research and business in the field of urban agriculture
• Raising awareness of potential employers and entrepreneurs on the global demand for urban green innovation
• Developing innovative curricula and learning methods, crossing sectoral, disciplinary and national boundaries
• Advocating on the role of new green enterprises in creating more sustainable cities

Assessment against 8 key challenges for Metropolitan and peri-urban Agriculture

1. Job creation
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Main obstacles & Next steps

The cluster, constituted as a working group, will schedule periodical discussion forums, meetings and newsletters to create a knowledge exchange platform on the most innovative entrepreneurial forms in urban agriculture, to connect experts from different disciplines, and to address the main funding agencies with key topics and initiatives.

Legal framework & Budget

URBAN GREEN TRAIN is an ERASMUS+ Key Action 2 Strategic Partnership for Higher Education. The project was coordinated by the University of Bologna and involved 9 other partners. The total budget was € 447,684, funded by the European Union and the Italian National Agency for the Erasmus+ Programme.

Activities

During a first phase, the project analysed the business opportunities related to urban agriculture, the existing educational offer and the training needs of different target groups. In a second phase, 5 training modules and educational resources were developed, tested through a full eLearning and an international blended course, including a 2-week at presence course in Bologna. The modules and resources were improved on the basis of the results of this phase and translated in the partner languages to be made available on online platforms. Policy recommendations for the validation and recognition of competences and a proposal of curriculum respecting the higher education standards were also developed.

Innovation & Outcomes

URBAN GREEN TRAIN is innovative as it developed a prototype and model for the collaborative development of courses/curricula covering both urban agriculture and entrepreneurship. The strong involvement of entrepreneurs in the process has led to the creation of educational materials that fill the gaps in the existing educational offer. To extend the impact of the project, an international and interdisciplinary Cluster on Entrepreneurial Urban Agriculture (UBRANAC) was created.
Legal framework & Budget
SIDIG-MED is a European cross-border cooperation project in the Mediterranean. It was coordinated by the Royal Botanic Garden and involved 5 other partners. The total budget was €1,998,646.60, with a co-financing of 90% by the EU through the ENPI-CBC-Med Programme.

Activities
The project started with an in-depth analysis of the legal and institutional frameworks of UPA in Jordan, Tunisia, Italy and Spain, the definition of participatory mechanisms for increased participation of local communities in the formulation of new UPA policies, and the development of guidelines and governance models for pilot projects in Al-Balqa, Mahdia, Rome and BMA. Then, one pilot project was designed, implemented and tested in each partner city. Can Pinyol Community Gardens are the outcome of the pilot project in BMA. Training sessions were organised to support the introduction of permaculture practices for soil management, rainfall harvesting, soil bed preparation, native seeds conservation, solar energy use, etc.

Innovation & Outcomes
The project promoted UPA models based on low cost tools and minimum inputs, tailored to each local context. New governance systems were developed for pilot sites, involving public authorities, associations and other local stakeholders. Appropriate design and management by local associations were key factors of success and sustainability for pilot projects. A total peri-urban agricultural area of 87 m² has been protected and valorised through the project. SIDIG-MED also facilitated experience sharing at the Mediterranean level.

Main obstacles & Next steps
The main obstacles faced by the project were related to the financing and implementation conditions of the ENPI-CBC-Med Programme. The initial duration of 24 months had to be extended of one year to go through the whole process. Some administrative and political issues also slowed down the progress but did not hamper the achievement of the project objectives.
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