

# Focus Experience

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**Educating Cities**  
International Documents Databank



## Title

## Rooftop Allotment

### Basic data

**Disused public spaces for the inclusion of disabled people.**

**City:** Barcelona

**Country:** Spain

**Number of inhabitants:** 1.615.000

**Topics:** Social inclusion; Disabled; Personal growing; Living together; Education in values, Sustainable development, Public space.

**Principles of the Charter of Educating Cities:** 1, 2, 4, 8, 11, 14, 16, 17, 20

### Summary



The shortage of building land in Barcelona has led to people exploring new ways of fostering horticulture in the city. Hence the City Council's idea to take advantage of disused spaces in municipal buildings, such as rooftops, to install urban allotments. This led to the creation of the **Rooftop Allotment** project, which, in addition to contributing to the increase of green spaces in the city, it puts special emphasis on promoting groups of people with various disabilities or mental health problems, who are direct beneficiaries of the experience.

The pilot project came to light in 2016 at the building of the Municipal Institute for People with Disabilities, the organisation responsible for the experience, in partnership with the Institute of Agri-Food Research and Technology (IRTA, from the Catalan acronym) and three occupational centres for people with disabilities. There are currently five urban allotments in operation on the rooftops of various municipal buildings, run by about 120 people from 6 social organisations. What's more, surplus produce - initially earmarked for the participants' own consumption - is delivered to vulnerable groups (soup kitchens, food banks, etc.), thereby fulfilling a social function while also fostering the idea of locally-sourced consumption. The participants themselves are responsible for making the donation, which makes it easier for them to experience the whole cycle at first hand.



### Activity at the allotments

The project has shown remarkable benefits in the quality of life and personal development of people with disabilities. The rooftop allotments have become a space for living together, inclusion and learning for these people, while also being a green space that encourages sustainable agriculture.

## Objectives

- To foster the social inclusion of people with disabilities and the advancement of their autonomy and learning.
- To install urban allotments on the disused rooftops of municipal buildings and to entrust their operation to entities working with people with disabilities, in order to improve the physical, social and emotional health of these people.
- To increase the number of green areas in the city, while also implementing environmentally-friendly practices.

## Methodology

For the management of the allotments, participants receive training in horticulture from the IRTA in order to gain knowledge about all the processes of growing vegetables (planting, fertilisation, watering, pruning, harvesting and pest control).

The allotments use a pioneering outdoor hydroponic system, which favours lightweight plantation with a greater yield. Drip irrigation allows for a controlled and responsible consumption of water with all the necessary nutrients for the plants. What's more, the water is also reused. The allotments have an agricultural yield similar to that of commercial crops, and the capacity to produce between 5 and 6 harvests of vegetables per year. The ones currently in operation produce lettuce, endive, spinach, chard, tomatoes, peas, courgettes, cucumbers and peppers, as well as a variety of aromatic herbs. The horticulturists attend to the allotments 3 days a week, totalling 6 hours over the week.

The project influences the emotional training of people with disabilities in aspects such as teamwork among participants, inclusion in the community, social relations in a normalised setting, tolerance to frustration when initial expectations are not met, satisfaction of witnessing the entire growing process of the allotment, etc.

One of the allotments is run by people with physical disabilities, which involved adjustments to remove pre-existing architectural barriers and the design of new structures to support fully accessible crops. The other allotments are run by people with intellectual disabilities and/or mental health issues.

What's more, the experience has reached out to other similar groups by putting older people and/or small children in contact with people with disabilities. As a result, children between 2 and 3 years old at a kindergarten share allotment maintenance tasks with them. This also happens with senior citizens from a civic centre.



**Planting, harvesting and distribution of allotment products.**

## Social and urban context

Barcelona is a Mediterranean city with a population of 1,614,090 inhabitants (2016 census). Out of this population, 132,566 are people with disabilities.

The target population of this project are adults (over 18) with mild or moderate intellectual disability and/or mental health issues, and people with physical disabilities, with extensive and/or general support needs in the areas of personal development.



**Barcelona panoramic view**

The initiative has been progressively extended to various districts of the city.

## Assessment

A study conducted in 2018 found that the participation of people with various disabilities in the project is bringing significant benefits to their quality of life and personal development, allowing them to discover new urban environments, breaking the daily routine of occupational workshops, being in the open air, working as a team, boosting their self-esteem and expanding their levels of responsibility. It was also observed that it helps reduce anxiety in some people.



Meanwhile, the initiative takes advantage of disused spaces in municipal buildings, turning them into an alternative for cultivation in such a densely-populated city as Barcelona, which has few spaces available for cultivation on ground level.



It has been found that in the allotments there is a very low presence of pollutants (cadmium, lead, etc.), well below the maximum limits permitted by the European Union, and lower than other allotments located near roads with intense traffic. What's more, the hydroponic system has boosted productivity levels, and the food produced is healthy and contaminant-free.



**Moments of collaboration and sharing**

Strengths:

- Users go from receiving help to giving help, because they deliver the surplus of harvests produced with their very own effort to social organizations.
- This project has also raised awareness among the employees who work in the municipal buildings housing the allotments.

Weak points:

- Need to improve energy savings.
- The initial cost of the project is still high.

Proposals for the future:

- Double the number of rooftops in the very near future (there are already two planned).
- Diversify and classify the agricultural yield of the allotments.
- Carry out more social and environmental research to evaluate the impact of the initiative.

## Contact

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