

5 Findings

This chapter provides a presentation of the pilots implemented in 5 CE cities within CoFarm4Cities project, exploring their main characteristics and the project objectives set for them. In addition, guidelines for USFLU model users are provided to support future implementations of the urban farms. Building on the implementation steps outlined in Chapter 4, this chapter synthesises the experience gained during the pilot actions and highlights the solutions derived from them.

5.1 Solutions

This chapter briefly presents five urban farm pilots in the cities participated in the CoFarm4Cities project. It focuses on the main characteristics and primary objectives of the pilot implementations.

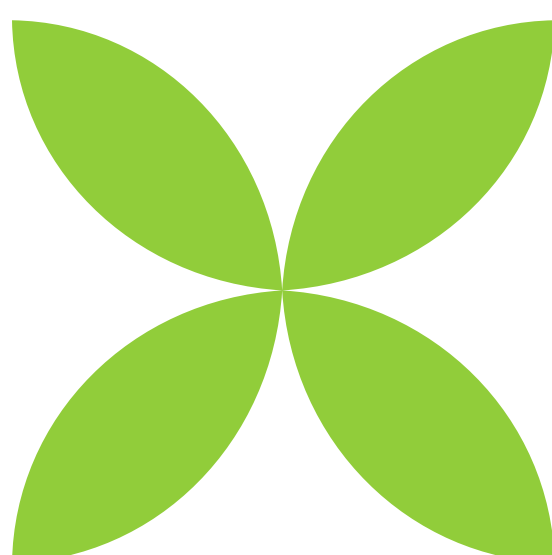
5.1.1 Local Farmers' Community Based Urban Farming (Óbuda)

The concept of establishing an urban farm emerged from the Integrated Urban Development Strategy of Óbuda-Békásmegyer, which identified abandoned agricultural land on the district's outskirts and highlighted the need to curb urban sprawl despite limited infrastructure development opportunities.

The initiative resulted in the creation of Budapest's first municipally owned, community-based urban farm, serving as a demonstrative pilot for integrated peri-urban land use. The project showcases the transformation of underutilised municipal property into a multifunctional space that combines **1. environmental responsibility applying circular and climate-friendly solutions, 2. economic viability and 3. social inclusion.**

The urban farm in Csúcshegy, Óbuda-Békásmegyer contributes to community building through community-based agriculture and supports the preservation of the area's natural, low-density character, thus mitigating urbanisation pressures related to the urban sprawl. From an economic perspective, the reuse of abandoned land for agricultural production increases the value of municipally owned property, while also generating positive environmental, economic and land-use impacts on the surrounding areas.

The farm operates as a non-profit, community-based production unit that is operationally self-sustaining. It is essentially small-scale, aiming at full or partial self-sufficiency for residential users, as well as educational and tertiary purposes for institutional stakeholders. It applies ecologically sustainable and nature-friendly farming methods, complemented by educational and knowledge-sharing activities that promote sustainable agricultural practices. Financial sustainability is ensured through a combination of limited municipal funding, institutional contributions, association fees, event revenues and available grant funding.



Key elements of the solution

5.1.1.1 A climate and environmentally friendly urban farm

The pilot integrates a permaculture-based approach to achieve environmental sustainability, with a strong focus on soil health, water conservation and biodiversity. To improve soil quality, synthetic inputs are avoided and replaced by composting, companion planting and mulching practices.

Due to the lack of drinking water infrastructure and the site’s location on a sensitive water base, rainwater harvesting is applied to support irrigation and reduce dependence on external water sources. Mulching contributes to moisture retention, while targeted irrigation systems optimise water distribution. The landscape is designed to slow, spread and sink water, ensuring effective absorption. A key lesson learned from the permaculture-based approach was the importance of involving a permaculture expert from the earliest stages of the project, ideally during the planning phase.

As nature-based solutions, the pilot applies regenerative farming approach as well as sustainable technical measures and methods were used, including solar-powered lighting, to reduce electricity consumption and support low-impact operation. Natural ecosystem and biodiversity is enhanced through the careful selection of plant species and the provision of microhabitats that support local fauna.

5.1.1.2 A non-profit, self-sustaining urban farm

The urban farm operates under a community-based economic model, managed by an association composed of the gardeners themselves. The Municipality provides the land free of charge through a commodatum (loan for use) agreement, while the association is responsible for the farm’s daily operations and maintenance, governed by a formal cooperation agreement. A key element of financial sustainability is the mandatory membership fee collected from all association members. These fees cover essential operational costs such as utilities and small-scale infrastructure investments, ensuring that the farm remains financially viable while benefiting from in-kind municipal support (including partial covering of utility expenses during the first year, contracting a farm manager to ensure efficient operation and community engagement). As the farm minimizes expenses through the free land provision and community-driven cultivation, the financial model becomes more sustainable over time. The mandatory membership fees support ongoing operational costs, while permaculture practices, such as organic fertilization, rainwater harvesting, and mulching, reduce the need for external inputs. The installation of renewable energy solutions like solar-powered lighting and low-maintenance landscape designs further contribute to financial sustainability.



5.1.1.3 A diverse and solidarity-based urban farm

The urban farm emphasizes social sustainability through inclusive community engagement and educational outreach. Local residents were invited to become plot holders via a three-month recruitment process facilitated by the Municipality, including joint site visits to help shape the final community. The farm is managed by a farm manager, who not only brings professional expertise but also plays a key role in fostering community development. Regular community events, training sessions, and awareness-raising activities are held monthly, ensuring ongoing engagement with the farm community consisting of local residents. The farm also occasionally opens its gates for broader public participation, offering designated days for residents to donate compost and engage with the community.

Education is a core aspect of the farm’s social sustainability. All plot holders participate in an intensive training program focused on urban permaculture, sustainable ecosystems, and nature-based food production. In addition, both plot holders and interested local residents are trained in proper composting practices.

The site is designed to be inclusive, offering tailored opportunities for vulnerable groups, including individuals with physical or mental disabilities. Raised garden beds and a therapeutic garden have been established to stimulate the senses and support sensory needs. Barrier-free access is ensured across the farm, making it accessible to people with limited mobility and parents with strollers. This inclusivity extends to creating a meaningful space for those who may experience social isolation due to the peri-urban location, offering opportunities for social interaction and community-building. The farm also aims to offer practical benefits, such as shared equipment, to local gardeners and continues to engage the community through participatory activities.

The upscalability of the solution is supported by the fact that concrete concept for the expansion of the farm already exist at the pilot site. Subject to obtaining the necessary institutional and financial approval, these plans may enter the implementation phase in the near future.

Overall, the solution contributes to regenerative, climate-conscious, economically viable and socially inclusive urban development, offering a replicable and upscalable model that supports sustainable land use and counters urban sprawl across the region.

5.1.2 Testing circularity, social cohesion, education based UF scenario (Turin)

The pilot Cascina Falchera builds on an already established urban farm site, which has been further developed and enhanced through the CoFarm4Cities project, and is a unique example of a multifunctional urban farm in the Metropolitan area of Turin. Implementation via CoFarm4Cities project aimed to create a space where all individuals of the community – schools, young people, children and adults – can be part of urban Community Gardens, a space to protect and foster biodiversity starting from the community.

The pilot site is used from different angles as a lively example of various modalities of agriculture and circularity practices, and offers new opportunities to produce and consume locally-produced organic vegetables and fruits on a private level. The focus point is to provide fresh fruits and vegetables to residents who do not have easy access to these products or the economic means to purchase them. For the future, it represents a big potential for an internal restaurant that will be set up in the farmhouse, where it will be possible to use locally-produced ingredients, reducing food waste while showcasing different ways to consume such fresh products.



Key elements of the solution

5.1.2.1 Protection and enhancement of peri-urban landscape, soils and biodiversity

The Cascina Falchera pilot transitions from intensive monoculture to sustainable, environmentally responsible farming. Soil quality was restored through mechanical aeration and organic amendments, while sustainable cultivation practices—minimum tillage, organic fertilisation, mulching, and pest management—are applied in the urban garden. On the main agricultural land, crop rotation with ancient wheat and maize varieties, combined with cover crops, supports soil fertility and ecosystem resilience.

Water management leverages the historic spring-fed irrigation channel and an automated drip system that adjusts to seasonal conditions, optimising efficiency and minimising waste. Environmental and ecological monitoring, supported by the University of Turin, ensures alignment with biodiversity and green infrastructure goals. Land is allocated to buffer strips, food forests, shrubs and tree lines, while native crop varieties are reintroduced, enhancing genetic diversity and local ecosystem resilience. All measures collectively promote sustainable food production, soil and water quality, and overall environmental and community well-being.