

### 5.1.4.2 Outdoor learning area for the school and kindergarten

The school next to the pilot action has been involved in the implementation since the beginning of the project. The children have participated in the workshops that have provided the city and the landscape architect with the input and ideas about the wishes of the local community for this space that was just an empty field before.

The school has had difficulty in growing plants and trees in the school garden, as that land is prone to flooding and the soil is of low quality. The new area is enabling the school to conduct part of the teaching programme outside.

### 5.1.4.3 Waste reduction and compost production

Another element of the pilot action was the composting device that runs on electrical power and can turn food remains into high-quality compost in 24 hours. This device is used to manage school and kindergarten food waste into compost for school garden and for the urban gardens in the vicinity.

The composting device has been installed and is in use, as a great help to the school kitchen which has had a surplus of biowaste that was unfit to be turned into compost in the usual way. The composting machine provides an opportunity to transform the food scraps into compost by undergoing a process that includes beneficial microorganisms and moderate heat, so the food is turned into high quality compost within 24 hours.



### 5.1.5 Testing school program based UF scenario (Ljubljana)

The Ljubljana pilot shows how urban farms can support education for schools and local communities. At the Rakova Jelša allotment area, the city created the Mini Urban Farm Rakova Jelša as part of its strategy to promote urban farming and food self-sufficiency.

The farm provides educational programs mainly for primary school teachers and mentors, helping them gain knowledge to develop school gardens. It also serves as a hands-on learning space for children, where they explore plant life cycles, biodiversity, crop rotation, and sustainable practices like composting. They learn basic gardening skills and understand the connections between food production, nature, and climate.

The Mini Urban Farm is a dynamic learning environment for both students and residents, encouraging healthy eating and strengthening community ties. School gardens play a key role by allowing students to apply what they learn and by spreading awareness about food production and self-sufficiency.

Together, the Mini Urban Farm, school gardens, and six educational modules create a comprehensive system that addresses food production, sustainability, biodiversity, waste reduction, social skills, mobility, and energy. The project is part of Ljubljana’s 2021–2027 strategy for rural development and urban farming.



# Key elements of the solution

## 5.1.5.1 Holistic approach to food production on local government level

Section for Rural development within City of Ljubljana developed different mechanism to achieve as high as possible level of food self-sufficiency. Until 2010, the focus was on support to farmers on the field of primarily production and supplementary activities on the farm, but since 2010, it focused also on urban farming in the form of allotment gardens. In order to enable local farmers to sell their products within so-called short supply chains, many activities were directed into connection between local farmers and public institutions, mainly schools and kindergartens. It soon became clear that it is not enough to connect different sides; it is also important do educate both sides so that they understand the needs of each other. First, we approached the food organisers and cooks in order to create a demand for locally produced food in public procurement. We made some progress but it was not enough. We realised that the education of the youngest citizens in needed in order to achieve a proper demand and attitude towards locally produced food. In connection to Department of Education, a programme of school gardens was again introduced to schools and efforts toward holistic approach were made with six modules.

## 5.1.5.2 Active inclusion of food production as a tool for many other activities in school curriculum

If we want school gardens as well as Mini Urban Farm Rakova Jelša to become a productive part of educational process, they have to be a part of wider horizontal curriculum of school education. Many school subject can be a part of gardening education from chemistry, home economics, physics, language, development of motor skills. School gardens must become a laboratory for different activities from circular economy (composting), to cooking classes, learning about biodiversity etc. Integrating the topic into the educational process allows students to learn about the origins of the food they eat, understand the benefits of local production and its impact on community independence, environmental protection, and a healthy lifestyle.



## 5.1.5.3 Empowering educator and reconnecting students with local food production

Successful implementation of such programmes depends on committed and motivated teachers and mentors who understand their long-term value. Beyond formal curricula, it is essential to engage educators who are willing to invest time and effort, and to support them with the necessary knowledge and tools. This enables them to effectively transfer both theoretical and practical understanding of food production to children, and potentially also to their families. At the same time, reconnecting students with active food production is crucial for balanced development.

Practical, hands-on experiences complement theoretical learning and help children build a positive relationship with food, nature, and sustainability. When they know how much effort must be put into growing one radish, they will not throw it away next time, if they experience, by collecting, the amount of wasted food they will think twice before they throw something away. Urban school gardens provide an ideal environment for this integrated approach. In addition to learning about gardening and sustainable practices, students develop important social skills such as cooperation, responsibility, communication, and conflict resolution.

Working together in a garden fosters a sense of community, peer connection, and intergenerational cooperation, which contributes to students' personal development.

