

Report from educational participatory workshops on circular urban agriculture conducted as part of the FOCUSE project

Project: "Production and Food Supply through Urban Closed-Loop Systems in European Cities" [acronym: FOCUSE], funded by the National Centre for Research and Development under the DUT call 2022 program with a budget of PLN 1,125,906.50. Project duration: 1 February 2024 – 31 January 2027..

FOCUSE Team:

dr inż. Anna Zaręba, dr hab. Alicja Krzemińska

Wrocław 2025



<https://focuse.uwr.edu.pl>



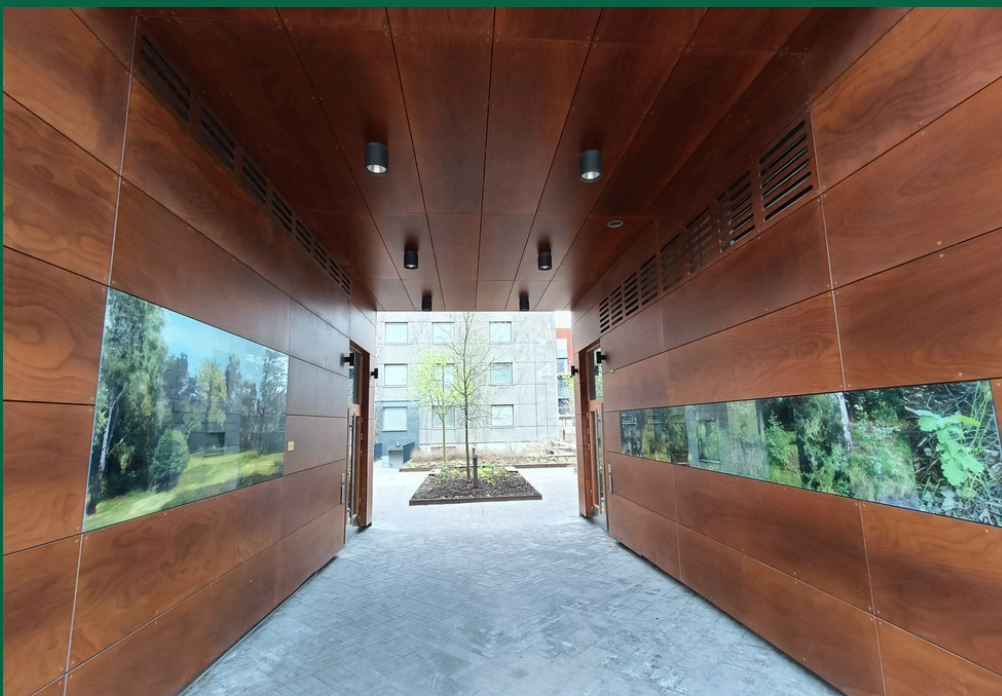


Introduction

The project "Food Production and Supply via Urban Closed-Loop Systems in European Cities" (FOCUSE) is being implemented from 2024 to 2027 by the University of Wrocław as part of the international Driving Urban Transitions (DUT) program.

One of the key goals of the project is to promote the idea of urban agriculture within closed-loop systems and raise public awareness about integrated food production and distribution systems in urban spaces.

As part of the project, a series of educational workshops were held for various age groups: youth, students and preschool children. Below is a detailed summary of the activities that were carried out.





Workshops for Secondary Schools During the International Landscape Day - October 20, 2024

Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

On October 20, 2024, the FOCUSE team took part in the celebration of International Landscape Day, organized by the Faculty of Earth Sciences and Environmental Management at the University of Wrocław. The event, held under the theme "HEALING THE LANDSCAPE," was attended by approximately 220 people, including secondary school students. Additionally, lectures and presentations were streamed online.

During the International Landscape Day several discussion panels were held, where experts from various fields presented the practical and theoretical aspects of healing landscapes degraded by human activity. Among the topics discussed were the role of green infrastructure in cities and the importance of biodiversity for the health of landscapes. Another part of the program was practical workshops.

Students from secondary schools in Lower Silesia had the opportunity to participate in design workshops, including shaping urban spaces and learning methods for introducing nature-based solutions (NBSs) in various types of landscape. The theme "HEALING THE LANDSCAPE" aimed to draw attention to the need for harmonious coexistence between humans and nature and to take action to protect and restore degraded areas.





Workshops for Secondary Schools During the International Landscape Day - October 20, 2024

Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

As part of the event, the FOCUSE team, represented by Dr. Alicja Krzemińska and Dr. Anna Zaręba, delivered a lecture titled "Biophilia and Ecopsychology in Urban Design" and conducted creative workshops: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

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Uniwersytet
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**Dzień Krajobrazu 2024:
UZDRAWIAJĄC(Y) KRAJOBRAZ**

**Biofilia i ekopsychologia
w projektowaniu miast**

dr hab. Alicja Krzemińska, dr inż. Anna Zaręba

Instytut Geografii i Rozwoju Regionalnego
Uniwersytet Wrocławski

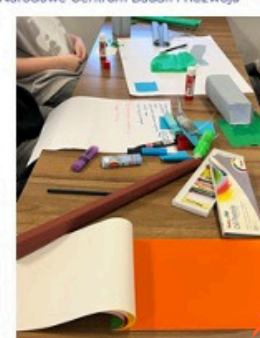
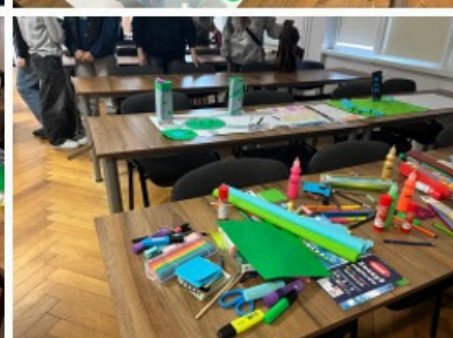
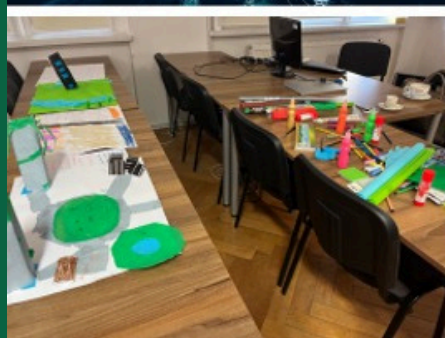
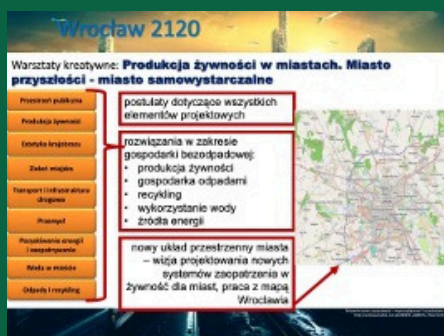


Workshops for Secondary Schools During the International Landscape Day - October 20, 2024

Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

Idea and Objectives of the Workshops

Students from the Powiatowy Zespół Szkół No. 1 in Środa Śląska designed the ideal "green city" using Wrocław as a case study, expanding their knowledge about the self-sufficiency of cities in terms of food production and integrated spatial planning. The workshops also aimed to show the connection between nature and the quality of life for urban residents. Biophilia, understood as the innate human need for contact with nature, was discussed in the context of designing urban spaces that promote both mental and physical health, with room for growing edible plants.





Workshops for Secondary Schools During the International Landscape Day - October 20, 2024

Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

Conclusions from the Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

1 Awareness of the Importance of Biophilia and Ecopsychology in Designing Sustainable Cities

Participants gained knowledge about biophilia as a key element in designing eco-cities. They understood that contact with nature in urban spaces significantly influences the mental and physical health of residents. Thanks to the workshops, students acquired practical skills in spatial analysis and creating projects that consider various aspects of sustainable development, including designing new food production areas in cities.

2 Integrated Urban Spatial Planning

While designing the model "green city", students recognized the importance of sustainable spatial planning, which combines functionality, ecology and social needs. Solutions such as green roofs, urban gardens and parks for growing vegetables, fruit and herbs were recognized as essential for the cities of the future and food production for future generations.





Workshops for Secondary Schools During the International Landscape Day - October 20, 2024

Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

Conclusions from the Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

3 Self-Sufficiency of Future Cities in Food Production

The workshops made participants aware that striving for self-sufficiency in cities, including local food production, a circular food economy, and the use of renewable energy sources, should be key elements in ensuring their sustainable development.





Workshops for Secondary Schools During the International Landscape Day - October 20, 2024

Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

Conclusions from the Workshop: "Designing a Model Self-Sufficient Eco-City of the Future in Wrocław!"

4 Creativity and Engagement of Youth in Building and Designing Sustainable Cities

Students demonstrated great creativity in designing urban spaces, taking into account both ecological and social solutions. The workshops showed that young people are aware of the challenges faced by modern cities, such as food production, and are eager to search for innovative solutions.

5 Wrocław as an Example of the Eco-City of the Future

The students' projects highlighted Wrocław's potential as a self-sufficient city, which can become a model city combining modernity with nature while meeting the needs of residents and addressing ecological challenges.





Workshops for IGRR Students – October 29, 2024

Design Workshops "Wrocław – Food Oriented City" – An Innovative Approach to Sustainable Urban Planning

On October 29, 2024, the Institute of Geography and Regional Development at the University of Wrocław hosted design workshops entitled "Wrocław – Food Oriented City," aimed at students of Spatial Economy. The event's objective was to design model eco-neighborhoods that align with the ideas of sustainable development, urban agriculture and a circular economy. The workshops, which attracted students from the urban planning field, contributed to educating students on innovative solutions for contemporary cities based on a circular food economy.





Workshops for IGRR Students – October 29, 2024

Design Workshops "Wrocław – Food Oriented City" – An Innovative Approach to Sustainable Urban Planning

The Idea and Objectives of the Workshops

The "Wrocław – Food Oriented City" workshops were initiated to address contemporary urbanization issues, such as the decreasing amount of urban green space, an increase in the amount of organic waste, and challenges related to reducing carbon dioxide emissions. At the same time, in the face of climate change and the need to strengthen cities' local resilience to the global warming crisis, local food production and urban agriculture systems are gaining increasing importance.

The objectives of the workshops were:

1. Educating students in designing eco-neighborhoods integrated with the circular food economy concept.
2. Carrying out creative exercises in designing model planning solutions that enable local food production in urban spaces.
3. Teaching students how to design low-emission solutions based on minimal organic waste.
4. Analyzing the potential of modern technologies, such as vertical gardens and hydroponic systems, in existing urban infrastructure.



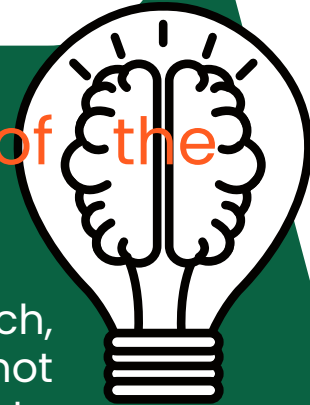


Workshops for IGRR Students – October 29, 2024

Design Workshops "Wrocław – Food
Oriented City" – An Innovative Approach
to Sustainable Urban Planning

The Idea and Objectives of the Workshops

Thanks to an interdisciplinary approach, workshop participants had the opportunity not only to gain theoretical knowledge but also to develop practical skills in various areas related to modern urban planning. Special emphasis was placed on the systemic analysis of urban space, allowing students to better understand the complexity and interconnections between various elements of the urban fabric, such as infrastructure, green and social spaces. Students analyzed the potential of urban areas for urban agriculture, such as community gardens, green roofs and vertical farms. This approach not only promotes sustainable development but also increases the self-sufficiency and resilience of cities in the face of global challenges such as climate change and ensuring food security in rapidly developing cities.





Workshops for IGRR Students – October 29, 2024

Design Workshops "Wrocław – Food
Oriented City" – An Innovative Approach
to Sustainable Urban Planning

Methodology of the Workshops

The workshops were divided into
several stages:

- 1** Preliminary analysis – identification
of urban issues in modern Wrocław
- 2** Analysis of urban agriculture synergy with the city's
natural system
- 3** Creative exercises in designing urban spaces and model
eco-neighborhoods in cities



1. PRELIMINARY ANALYSIS – IDENTIFICATION OF URBAN ISSUES IN MODERN WROCLAW

In this part of the workshops, students conducted a
detailed spatial analysis of selected districts in Wrocław,
where they identified key urbanization challenges, such
as:

- Insufficient green spaces.
- A large percentage of wasted food and organic
waste.
- Problems integrating ecological solutions in
urbanized spaces.
- The issue of engaging local communities in urban
agriculture activities.





Workshops for IGRR Students – October 29, 2024



Design Workshops "Wrocław – Food Oriented City" – An Innovative Approach to Sustainable Urban Planning

Methodology of the Workshops

2. ANALYSIS OF URBAN AGRICULTURE SYNERGY WITH THE CITY'S NATURAL SYSTEM

A key element of the workshops was the introduction of systems analysis, which allowed students to understand the relationships between food production, organic waste management, and CO₂ emission reduction. Based on this analysis, students learned to develop multiple development scenarios for eco-neighborhoods that integrated ecological, social and economic aspects of design.

3. CREATIVE EXERCISES IN DESIGNING URBAN SPACES AND MODEL ECO-NEIGHBORHOODS IN CITIES

Among the proposed solutions were:

- Urban vertical farms – enabling local food production with minimal use of general urban space.
- Hydroponic and aquaponic systems supporting urban agriculture.
- Neighborhood composting – allowing the use of organic waste in situ.
- Community and vertical gardens – serving not only a productive function but also recreational and educational purposes.





Workshops for IGRR Students – October 29, 2024



Design Workshops "Wrocław – Food Oriented City" – An Innovative Approach to Sustainable Urban Planning

Conclusions from the Workshops

The "Wrocław – Food Oriented City" workshops resulted in new skills that students acquired related to creating model concepts for eco-neighborhoods that:

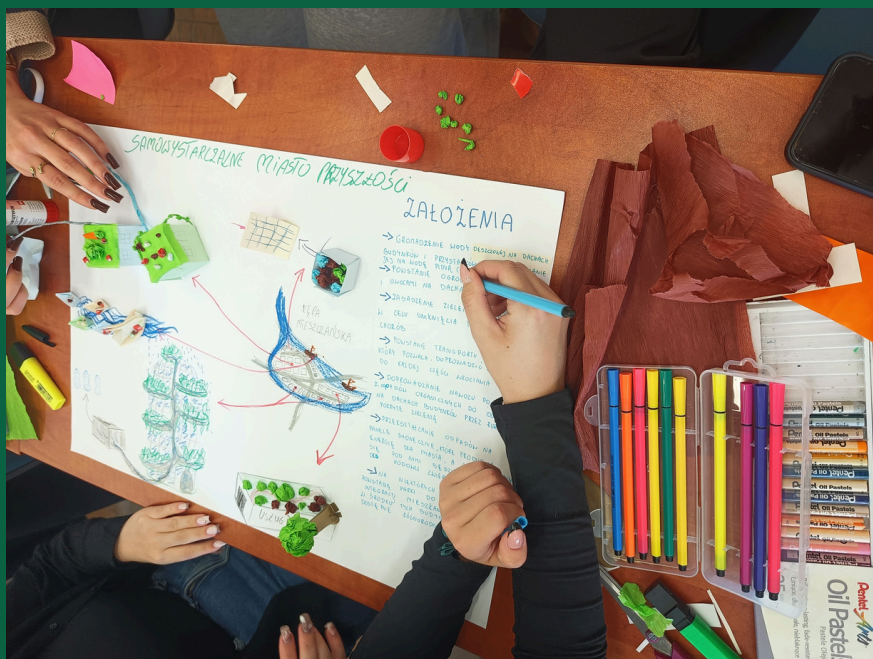
- Integrated food production with organic waste management.
- Reduced the carbon footprint through local food production within a circular economy.
- Created shared spaces promoting social integration, ecological education and healthy lifestyles.

Special attention was given to the educational potential of self-sufficient urban eco-neighborhoods. Students emphasized that urban spaces should not only produce food but also educate residents about sustainable living. They pointed out the importance of a circular food economy in which organic waste is processed into compost or biogas, and then used for food production in urban gardens, vertical farms or green roofs. During the workshops, attention was drawn to solutions that minimize food transportation needs and use renewable energy to power new eco-neighborhood infrastructure, significantly reducing carbon emissions. The importance of local production was emphasized, enabling city dwellers to access seasonal, fresh agricultural products while supporting the natural environment and biodiversity.



Workshops for IGRR Students – October 29, 2024

Design Workshops "Wrocław – Food Oriented City" – An Innovative Approach to Sustainable Urban Planning



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"

On November 29, December 9, and December 13, 2024, a series of educational workshops entitled "Wrocław – A Green City Full of Vegetables and Fruit" took place at Preschool No. 51 "Kolorowy Początek" in Wrocław.

The main theme was designing a green city where spaces filled with vegetables, fruit and herbs are an integral part of the urban landscape. These workshops aimed to develop ecological awareness among the youngest residents of the city and encourage them to promote a healthy lifestyle and healthy food. The workshops combined ecological education with creative play and imaginative thinking.



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"

The Idea and Objectives of the Workshops for Preschool Children

The main objectives of the workshops were:

1. Developing ecological awareness among children through designing green urban spaces.
2. Learning about the benefits of greenery in cities, such as improving air quality, reducing pollution and providing access to locally grown food.
3. Stimulating creativity and design skills in the context of sustainable urban development.
4. Introducing concepts such as green architecture and urban agriculture within a circular economy.



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"



Schedule and Course of the Workshops

NOVEMBER 29, 2024 – DESIGNING MINIATURE GREEN URBAN SPACES

The workshops involved a total of 47 children divided into three preschool groups:

- Group 1 – 15 children
- Group 2 – 15 children
- Group 4 – 17 children



Course of the activities:

The session began with a short multimedia presentation, designed to introduce the children to the concept of a "green city", its functions, and role in improving the quality of life for its residents. The children were shown examples of cities where fruit trees, bushes and vegetable gardens have become important urban elements. This allowed them to see how such solutions not only improve the aesthetics of cities but also promote a healthy lifestyle, social integration and environmental protection.

In the practical part, the children were divided into teams and tasked with designing miniature green urban spaces. Using various art materials such as paper, colorful tissue paper, crayons and paints, the children creatively expressed their ideas. The teams worked on projects for spaces filled with vegetable gardens, fruit orchards, green roofs and elements of green architecture, such as walls covered with plants or vertical farms.



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"



DECEMBER 9, 2024 – CREATING POSTERS OF GREEN CITIES AND BUILDINGS WITH ECOLOGICAL CULTIVATION

The second cycle of workshops involved 63 children and was targeted at the following groups:

- Group 2 – 21 children
- Group 7 – 21 children
- Group 5 – 21 children

Course of the activities:

The children were introduced to the concept of green infrastructure and learned how plants influence the appearance and function of cities. Special emphasis was placed on the idea of spaces friendly to residents where edible plants can be grown.

In the practical part of the workshop, the preschoolers used their imagination to create posters of buildings surrounded by urban crops and designed social spaces. Their projects depicted visions of cities with avenues full of vegetables and fruit, where residents could rest, walk and gather jointly grown plants.



**Wrocław – zielone miasto
pełne warzyw i owoców
9.12.2024**



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"

DECEMBER 13, 2024 – DESIGNING URBAN FARMS

On the final day of the workshops, 49 children participated from the following groups:

- Group 6 – 18 children
- Group 8 – 19 children
- Group 9 – 12 children

Course of the activities:

During the session, the children were introduced to the concept of urban farms, which support an ecological approach to urban living. They learned how urban agriculture can contribute to environmental protection and increase access to healthy food.

In the practical part of the workshop, the children designed spaces for urban farms where residents could plant and harvest vegetables and fruit together. The activities provided an opportunity not only to develop creative skills and imagination but also to teach the youngest children the importance of vegetation in cities and the benefits of introducing sustainable solutions in urban farming.



WROCŁAW- ROŚLINY JADALNE W MIEŚCIE

**Warsztaty kreatywne dla dzieci
13.12.2024**



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"

Conclusions from the workshops

During the "Wrocław – Green City Full of Vegetables and Fruit" workshops, special attention was given to engaging children in the process of designing urban spaces, which fostered their creativity while allowing them to understand the role of spatial planning and sustainable development in the context of food production in cities. The children gained knowledge about the health benefits of urban greenery, such as improving air quality and providing access to locally grown produce.

1. CHILDREN'S ECOLOGICAL AWARENESS: :

Thanks to the workshops, children became aware of the important role greenery and urban farming play in the space of Wrocław and how they affect human health and the environment.

2. CREATIVITY AND ENGAGEMENT:

The children showed great creativity in designing spaces full of cultivated plants, which encouraged their active participation.

3. LEARNING THROUGH PLAY:

The combination of educational presentations and artistic activities facilitated knowledge acquisition and helped develop the children's manual and design skills.

4. THE IMPORTANCE OF GREEN ARCHITECTURE:

The children's projects emphasized the need to introduce plant elements (fruit trees, urban farms, green pathways) into urbanized spaces, enabling the development of healthy, sustainable cities.



Workshops for Preschool Children



Creative Workshops: "Wrocław – A Green City Full of Vegetables and Fruit"



Wnioski z warsztatów

An important goal of the workshops was also to introduce children to the basics of spatial planning and sustainable development principles, taking into account local food production and the role of green spaces in shaping a climate-resilient urban environment.





Workshops for seniors

Workshops for seniors: Wrocław – “Green City Garden”

On January 10, 2025, creative workshops were held with the participation of 46 seniors under the theme "Wrocław – Green City Garden." The meeting took place at the Strachocin-Swojczyce-Wojaków District Council building, located at Swojczycka 118 in Wrocław. The workshops for seniors aimed not only to expand their knowledge about green spaces in cities but also to promote local community integration and encourage an active lifestyle through activities related to urban farming and green architecture.

Objective of the Workshops:

The goal of the workshops was to engage the older generation in a dialogue on sustainable development, introduce participants to the possibilities of implementing closed-loop urban farming, and showcase potential solutions for plant cultivation that seniors could implement in their local environment. These activities aimed to emphasize the role of seniors in creating ecological urban spaces tailored to the needs of various social groups. The workshops focused primarily on education regarding closed-loop urban farming, which includes, among other things, composting organic waste, utilizing renewable energy sources, and developing local food production through community gardens, green roofs and vertical farms. Participants learned how these solutions could not only increase the self-sufficiency of cities but also become spaces for building social bonds and promoting a healthy lifestyle.





Workshops for seniors

Workshops for seniors: Wrocław – “Green City Garden”



Course of the Workshops

the event included the following activities:

1. THEMATIC EXPERT LECTURE:

The FOCUSE team delivered a lecture on closed-loop urban farming. The presentation was based on best practices from various countries, including innovative technological and social solutions supporting sustainable urban development.

2. LOCAL EXAMPLES OF CLOSED-LOOP URBAN FARMING:

Special attention was given to urban farming initiatives in Wrocław, which helped participants better understand the local context of urban farming and the opportunities to adapt such solutions in their immediate surroundings, including the Swojczyce-Strachocin-Wojnow residential district.



Workshops for seniors

Workshops for seniors: Wrocław – “Green City Garden”

3. CREATIVE DESIGN WORKSHOPS:

Seniors had the opportunity to actively participate in the process of designing ecological urban spaces, sharing their ideas and experiences. The creative design workshops enabled participants to actively contribute to the creation of a shared concept for sustainable urban spaces, incorporating urban farming, recreational areas and green-blue infrastructure elements.

Results:

- Participants gained knowledge about closed-loop urban farming and its potential environmental, social, and economic benefits.
- The workshops allowed for the exchange of experiences and ideas between generations, promoting a more holistic approach to sustainable development.
- Seniors were engaged in a dialogue about shaping urban spaces and this contributed to an increased sense of social integration.

The “Wrocław – Green City Garden” workshops were an important step in raising ecological awareness among seniors and involving them in actions promoting sustainable urban development. The workshops demonstrated that the older generation can play a key role in promoting and implementing initiatives supporting closed-loop urban farming.





Workshops for seniors

Workshops for seniors: Wrocław – “Green City Garden”

Summary of Educational Participatory Workshops on Closed-Loop Urban Farming in Cities within the FOCUSE Project

The workshops conducted as part of the FOCUSE project contributed to the popularization of knowledge about urban farming, closed-loop food systems, and integrated urban space design. Through educational and research activities, the project strengthens intersectoral collaboration and supports the development of self-sufficient, sustainable cities in Poland and Europe. Such initiatives enable building societal awareness of the role of green infrastructure and closed-loop urban farming in urban transformation processes.

The series of workshop meetings held as part of the FOCUSE project for preschool children, youth, students and senior groups extended the project's reach to various age groups and social circles, integrating different generations around the idea of sustainable development and closed-loop urban farming. The series of creative workshops aimed to raise ecological awareness among Wrocław's residents and their ability to think creatively about the city's future. It was also an outcome of one of the project's aims focusing on popularizing science, as part of the initiatives funded by the NCBR. Each workshop day provided inspiring observations, showing that urban communities can actively participate in creating green and sustainable urban spaces. The creative workshops became an example of academic and design collaboration in the context of modern urbanism. Wrocław residents, through practical work on model solutions for self-sufficient cities focused on closed-loop food production, had the opportunity to address the challenges of contemporary cities, while also developing their analytical, social and creative skills. The integrated approach to eco-city design, combining local food production, a waste-free economy and sustainable resource management (such as energy and water), shows that it is possible to create human- and environment-friendly urban spaces together with city residents. These workshops proved that modern cities can accommodate innovative, durable and climate-resilient urban spaces.



Wrocław 2025

FOCUSE



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