



## Ukraine towards Carbon Neutrality

Work Package 4  
Pilot implementation in  
Ukraine, supported by European  
front-runners.

**MI City Institute (Lviv)**

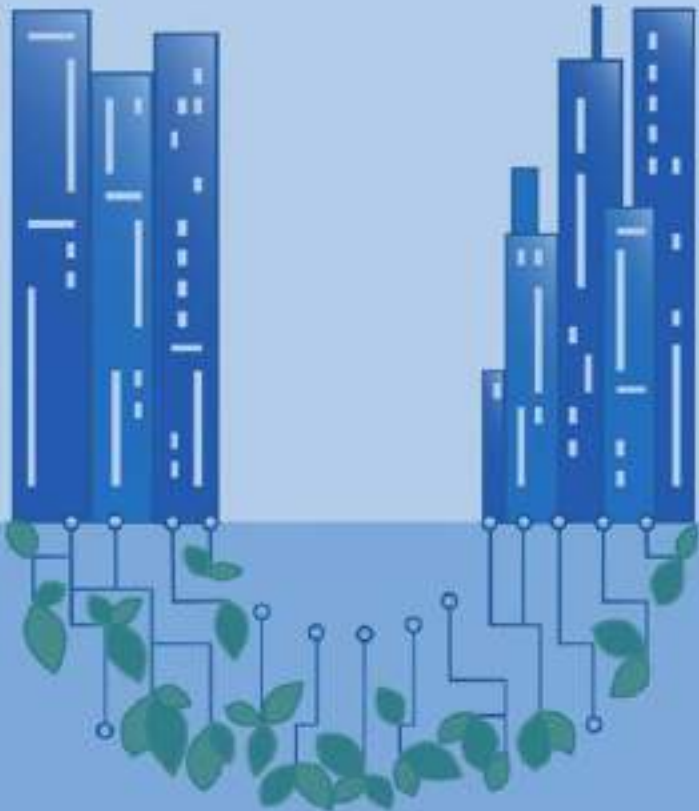


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## WP4 Aim

The aim of this WP is to implement short to medium-term climate mitigation strategies in 6 pilot cities in Ukraine (Lviv, Zhytomyr, Khmelnytskyi, Ivano-Frankivsk and Vinnytsia)



## WP4 Objectives

- **Support implementation of pilot activities in six cities to demonstrate climate-neutral city solutions;**
- **Integrate learnings from project and contemporary practices in short and medium-term strategies of local governing bodies in Ukraine.**



**CAN**



## Task 4.1: Assessment of climate indicators in pilot cities (OBM)



**This task will develop and deploy a methodology for data requirement to assess climate neutrality and impact indicators in pilot cities. It will be conducted in coordination with partners from pilot cities. Climate indicators will be collected, organised and assessed to indicate key hazards and potential risks in the pilots .**



## Deliverable 4.1: Climate neutrality and impact indicators in Pilots



- The document will provide methodology of evaluation of the Pilot projects implementation including the lists of climate neutrality and impact indicators for the said projects.



## Task 4.2: Climate-neutral pilot activities in Lviv (CIL)



CIL will implement two activities for the city of Lviv

- Positive Energy District (PED)
- Setting up a Bureau for EU Integration.

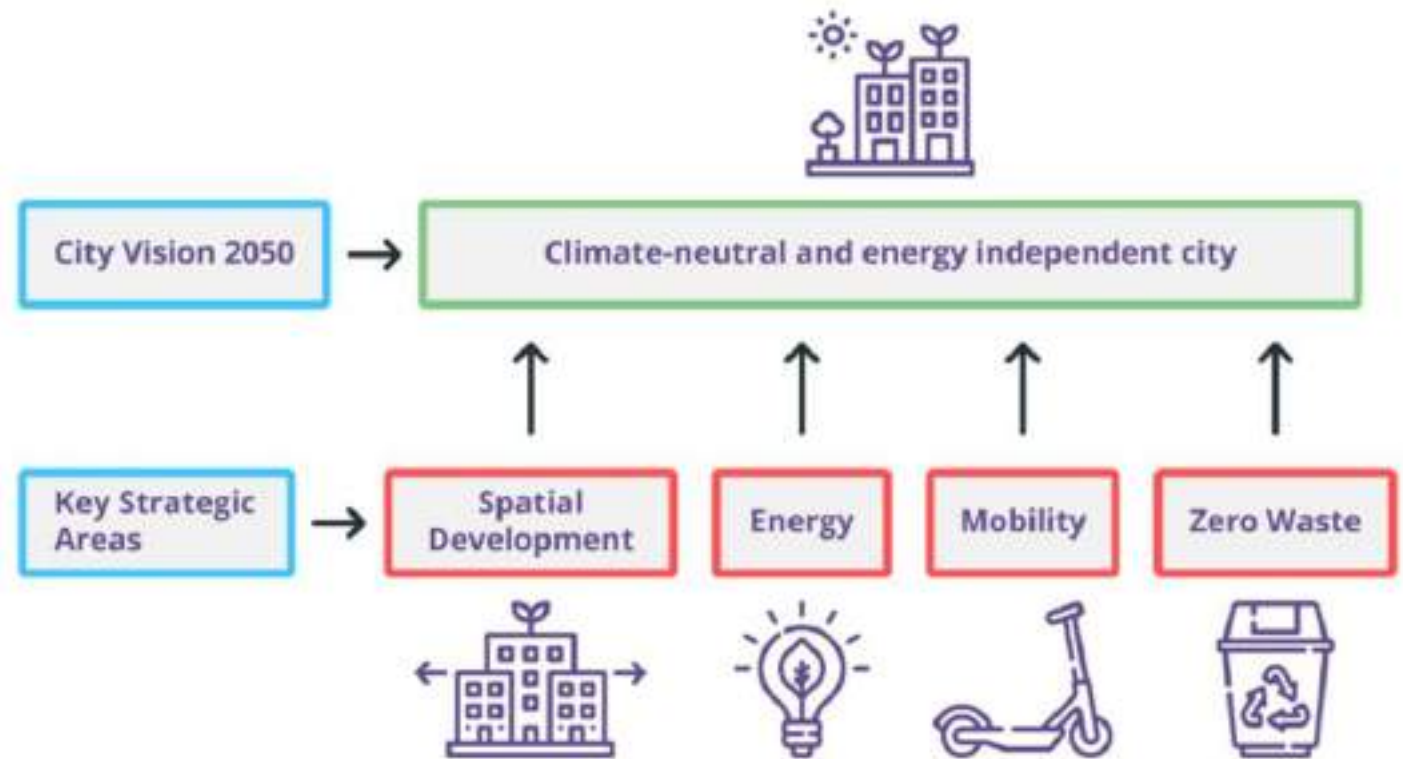


## Deliverable 4.2: Implementation Plan Lviv



- The document will summarize key actions undertaken, including the development of the project for modernization of heat networks and heat exchange stations in building and neighborhood levels; development of the project for integrating heat pumps in the neighborhood; development of the project for PV installations in the neighborhood based on the solar energy potential; and development of the project for smart energy grid for the neighborhood and integration of the smart energy grid into the Spatial Energy Plan of Lviv.

# City Vision 2050





# Lviv



## Task 4.3: Climate-neutral pilot activities in Kyiv (ISKPI)



- Recommendations for the use of the underground space of the city of Kyiv for systemic influence on the reduction of greenhouse gas emissions produced by transport.

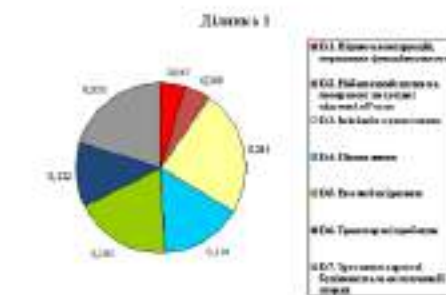
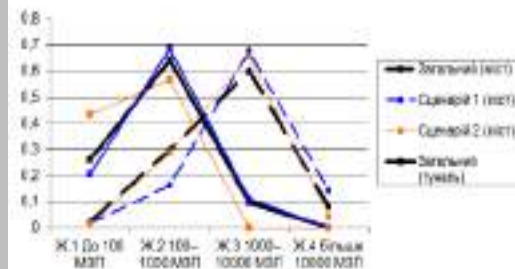
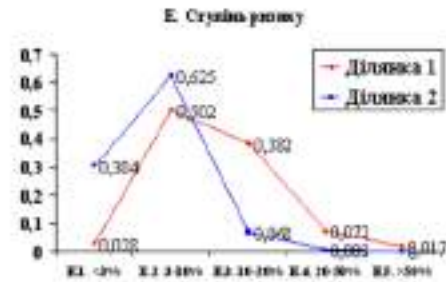
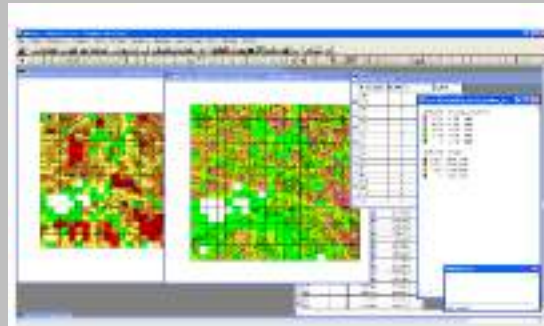


- Creation of Urban Atlas for Kyiv for 2020-2022

# Deliverable 4.3: Implementation Plan Kyiv



- Systematic evaluation of the reduction of automobile emissions when using the system of automobile tunnels and the subway. Urban Atlas for Kyiv for 2020-2022, maps of changes in land use, pollution and temperature fields of the districts of Kyiv will be created. System methodology and tools for making planning decisions regarding the development of underground transport infrastructure for the tasks of climate neutrality of the city. The results of the testing of promising routes of car tunnels and subway lines in Kyiv. Recommendations regarding the use of the underground space of the city of Kyiv for systemic impact on the reduction of greenhouse gas emissions by transport.



- К1. Екстремально високі температури (температура понад 50°C)
- К2. Різкий похолодання та сильні вітри (швидкість вітру понад 10 м/с)
- К3. Велика вологість
- К4. Довга зима
- К5. Велика кількість опадів
- К6. Транспортування
- К7. Трубопровідні системи та інженерні рішення

## Task 4.4: Climate-neutral pilot activities in Zhytomyr (ZCC)



ZCC will conduct two activities in the city of Zhytomyr namely;

- Development of a floating solar power plant
- Development of urban gardening models based on the former municipal plant nurseries



## Deliverable 4.4: Implementation Plan Zhytomyr



The deliverable as a report of Implementation Plan for Zhytomyr will contain the pilot summaries of both the pilot activities. namely,

- Development of a floating solar power plant;
- Development of urban gardening models.

# ZHYTOMYR



RESERVOIR AREA

**300.0** ha

CONSUMPTION OF ELECTRIC ENERGY

**639.4** GWh per year

OWN GENERATION

**1%**

# ZHYTOMYR



area of greenhouses

**12 000.0** square meters

## Task 4.5: Climate-neutral pilot activities in Khmelnytskyi (KhNU, LYKUMML)



KhNU and LYKUMML along with the Khmelnytskyi City Council will conduct two activities in the city of Khmelnytskyi namely.

- Knowledge dissemination on CO2 reduction and development of an adaptive traffic management system.
- Development of a centre for the support of local policies in the field of climate-neutral construction and energy.



## Deliverable 4.5: Implementation Plan Khmelnyskyi



- The deliverable will comprise of dissemination activities including a conference in the field of CO2 emission reduction in the transport sector in Ukrainian cities. It will also include setting up of a Centre for the support of local policies in the field of climate-neutral construction and energy in Khmelnytskyi.



Zones with starting and ending points for traffic movement



Zones with starting and ending points for traffic movements and marked traffic lights



Khmelnytskyi public transport traffic (urban mobility)

## Task 4.6: Climate-neutral pilot activities in Ivano-Frankivsk (BRIT)



**BRIT will implement photovoltaic installation within the public building in central Ivano-Frankivsk. The climate-neutral solution and approach from the pilot activity will be included in an Implementation Plan for Ivano-Frankivsk to cater to the scope of scale-up and replication.**



## Deliverable 4.6: Implementation Plan Ivano- Frankivsk



- Implementation plan for Ivano-Frankivsk will represent a roadmap agreed by key stakeholders in the areas of recently adopted Declaration on Ivano-Frankivsk green deal and working Sustainable energy and climate action plan till 2030. The areas to be covered the Implementation plan include to are not limited by the following: private and municipal/public buildings, municipal transport, energy production facilities and dissemination policy. Other areas such a private transportation and companies, higher cost solutions will be showcased with best EU examples.

## Task 4.7: Climate-neutral pilot activities in Vinnytsia (ME IUD)



- **Strategy for restoration of urban biodiversity of Vinnytsia. As a sub task, it will also develop a socio-spatial concept for Tiazhylivka river revitalisation. This will include measures to protect local biodiversity and treatment of polluted river water. Climate-neutral approaches from the pilot activity will be included in an Implementation Plan for Vinnytsia to cater to the scope of replication.**



## Deliverable 4.7: Implementation Plan Vinnytsia



The deliverable as a report for Implementation plan for Vinnytsia will contain the developed strategy for restoration of urban biodiversity of Vinnytsia and a socio-spatial concept for Tiazhylivka river revitalisation.





## Task 4.8: Performance assessment of initiatives in six pilot cities (ENV)



- Impact and performance of the pilot activities based on the framework developed in T4.1. It is deemed necessary to create a roadmap and prioritize measures for implementation. It will, where relevant, include energy audits, risk assessment analysis and summarize the project's contribution to climate mitigation based on the pilot results in the form of Performance Assessment Report.



# Deliverable 4.8: Climate Impact and Performance Assessment Report for the pilot Cities



- Performance assessment report of all activities designed and implemented in the pilot cities between months 13-36. . The roadmap will be designed to at least assess:
- Effectiveness degree of each measure / activity through different KPIs
- Capacity of the implementation bodies, the needs and the difficulties experienced
- Financing methods and funding sources used It will also provide the framework for future development of similar activities and projects.



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**Thank you for your attention !**



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