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SMART CITY CHALLENGE 2025

City Challenge

Challenge Title – Developing a Coherent Safe Cycling Network

City: Lviv, Ukraine

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1. What is the future urban challenge that would need a solution to?

Lviv faces the challenge of creating a coherent, safe, and user-friendly cycling network that serves not only daily commuting but also supports recreational use and last-mile connectivity. Currently, bicycle infrastructure (total length 140 km, planned 268 km) is fragmented, with inconsistent standards, unsafe junctions, and insufficient links to public transport. Additionally, the lack of secure and accessible bicycle storage facilities prevents cycling from becoming a mainstream mode of urban transport.

According to Lviv's Sustainable Urban Mobility Plan (2020), the city's modal split is approximately 52% public transport, 22% private cars, 6% cycling, and 19% walking.

Category: Climate resilient city/Happy city. By developing its cycling infrastructure, Lviv aims to reduce car dependency, improve air quality, and foster healthier lifestyles.

This issue is a top priority for Lviv as the city is committed to implementing its Sustainable Urban Mobility Plan (2020) and Cycling Concept (2021–2030). The challenge is not unique to Lviv – many post-Soviet and European transition cities struggle to re-balance their mobility systems from car-centric planning toward sustainable, active modes.

2. Innovation

So far, Lviv has implemented separate bicycle lanes, a limited connections between districts. However, these measures have not been sufficient to create a safe, continuous, and convenient cycling experience. There are legal and financial barriers, such as limited funding and outdated street design standards, that slow down progress.

The future solution should include not only high-quality cycling lanes and safe



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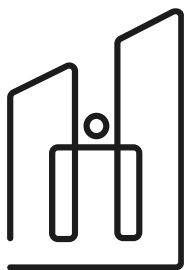


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crossings, but also:

- Digital mapping and smart planning tools for cycling corridors;
- Public awareness campaigns and incentives to encourage cycling as an everyday choice.

3. Expected impact of pilot solution

Environment: A significant reduction in CO₂ emissions, improved air quality, and decreased noise pollution. More space-efficient cycling infrastructure will also allow for greener and more livable streets.

Citizens: With the implementation of the project, Lviv expects a significant shift in its modal split: the share of cycling could increase from the current ~6% to 12–15% by 2030, while the use of private cars would gradually decrease. This would lead to safer and more livable streets, and a more balanced urban mobility system.

Increased safety and convenience for cyclists, improved accessibility for vulnerable groups, and a healthier urban lifestyle. A robust bike-sharing and parking system will make cycling practical for people who cannot store bikes at home.

Governance: Stronger institutional capacity to implement innovative mobility solutions, better alignment with EU climate goals, and higher attractiveness of the city for international investments and partnerships.

4. Piloting

Lviv is ready to become a piloting partner for innovative safe cycling infrastructure and mobility services. The city has a strong legal foundation (Sustainable Urban Mobility Plan 2020, Cycling Concept 2021–2030, and Mobility Department programs), political support, and an active civil society advocating for cycling. Lviv can provide pilot corridors, locations for bike-storage facilities, and partnerships with universities, private operators, and NGOs. This makes the city a reliable partner for testing scalable solutions that could be replicated in other European cities facing similar challenges.



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