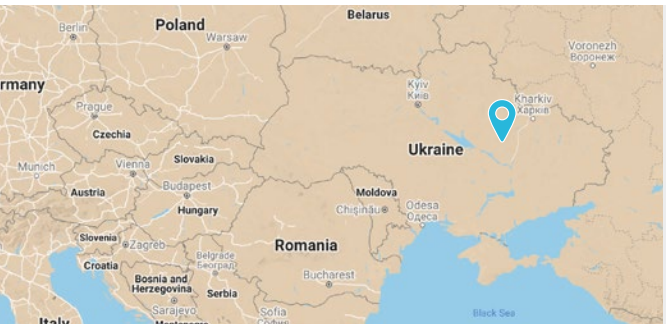
Poltava, Ukraine

Partner city

Status of the project: **Completed technical assistance**



Basic Information

Urban area: **106.4 km²**

Population: **106.4 km²** | Growth rate: **0%**

GDP per capita: **USD 4,621,31**

By aligning its economic and touristic objectives, Poltava is implementing a Sustainable Urban Mobility Plan with a focus on enhancing public transport attractiveness and promoting active mobility.

Key facts

City, Country	Poltava, Ukraine
Population[1]	287,000
Land area (Poltava City)[2]	106.4 km²
GDP per capita	USD 4,621,31
Baseline motorisation rate[3]	152 cars / 1,000 inhabitants
Local Partner (organisation)	Poltava City Council
Implementing partners	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH through the project Integrated urban development in Ukraine
Donors supporting technical assistance for the SUMP	• German Ministry for Economic Cooperation and Development (BMZ) • Swiss Federation State Secretariat for Economic Affairs (SECO)
Amount in technical assistance	Included in the Integrated Urban Development in Ukraine project which has a budget of 9,100,000 EUR to support multiple cities
SUMP implementation timeline	• Joined MobiliseYourCity in June 2017 • MobiliseDays in September 2018 • Start of SUMP elaboration in 2019 • SUMP completed and approved in 2020
SUMP Vision	To transform Poltava into a more liveable urban environment and a dynamic regional hub seamlessly connected to the national and global economies. The focal points of the SUMP are strengthening the city's economy and promoting a healthier, more inclusive way of life.

1 State Statistics Service

2 Poltava City Master Plan

3 Regional service center in Poltava region, Ministry of Internal Affairs of Ukraine, 2015

Thanks to the funding from BMZ, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has supported the Poltava City Council in developing a Sustainable Urban Mobility Plan (SUMP). The project encompasses diagnosis the current situation, defining sustainable urban mobility priorities and goals, analysing possible future scenarios, and, finally, identifying priority measures.

Although participatory processes had previously taken place in the city, such as online public consultations and civil society actions, the project went much further, ensuring the broad involvement of residents and specialised professionals in the area.

The implementation and development of the selected SUMP measures are expected to provide transport access to the entire population, particularly low-mobility groups, increase ecological compatibility, and strengthen the city's economy and tourism attractiveness.

Diagnosis: Urban Mobility in Poltava

Poltava is an important regional city characterised mostly by a flat terrain with a maximum elevation of +159.2 meters above sea level. The urban area experiences negative demographic growth, marked by low fertility and high mortality rates. However, motorisation levels are expected to increase by 330 cars per 1,000 inhabitants by 2031, which will have a significant impact on the city's road network and traffic.

The city's spatial organisation is heterogeneous. Although the average population density is high, there is significant variation in population density among micro-districts. Most workplaces and points of attraction are concentrated in the centre, the surroundings of the southern station and in the southern part of the city, while the northern part is less populated.

These factors are crucial for analysing the resident mobility patterns and forming an efficient public transport system. Commuting constitutes a significant share of traffic in the city, heavily influencing morning peak periods from home to work, and vice versa in the evening.

Mobility demand and transport services

According to a mobility survey conducted in May 2018, Poltava's daily travel rate averages 2.1 trips per person. As depicted in **Figure 1**, the modal split highlights the current dominance of motorised travel modes (car and public transport), representing 67.6% of trips, while non-motorised modes (walking and cycling) account for 32.3%.

75% of households do not own a car, resulting in limited car usage compared to cities of the similar size in Ukraine or elsewhere in Europe. Consequently, public transport usage is high (55.2%), making it the most frequently -used mode of transportation in Poltava. Walking ranks second, constituting 30.5% of all trips.

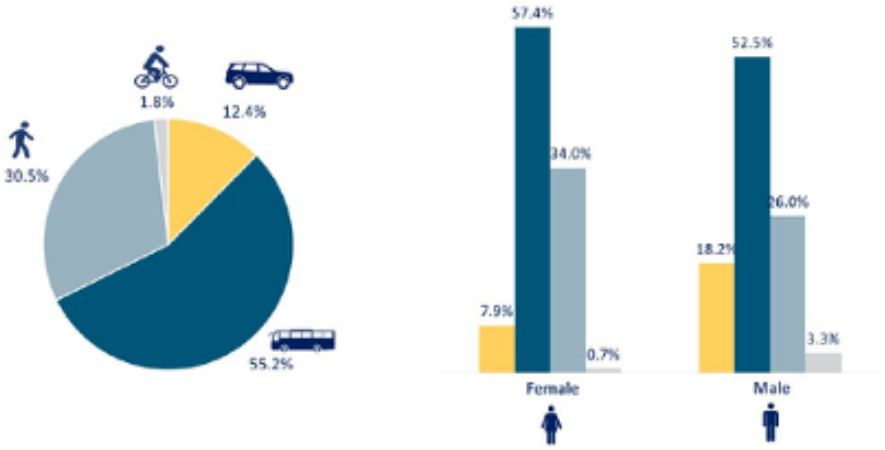


Figure 1 - Modal split

Overview of mobility services

Public transport services (trolleybus and bus)

The city counts 10 trolleybus and 65 bus routes.[4] 15% of the final stops of these bus routes are located outside the city's territorial borders, enhancing route network accessibility for nearby settlements. A staggering 87.9% of local residents live within 500 m of public transport stops.

The urban electric transport network (trolleybuses) spans 73 km, while the total length reaches 250 km[3] (Figure 2). The public transport system encompasses 407 stopping points.

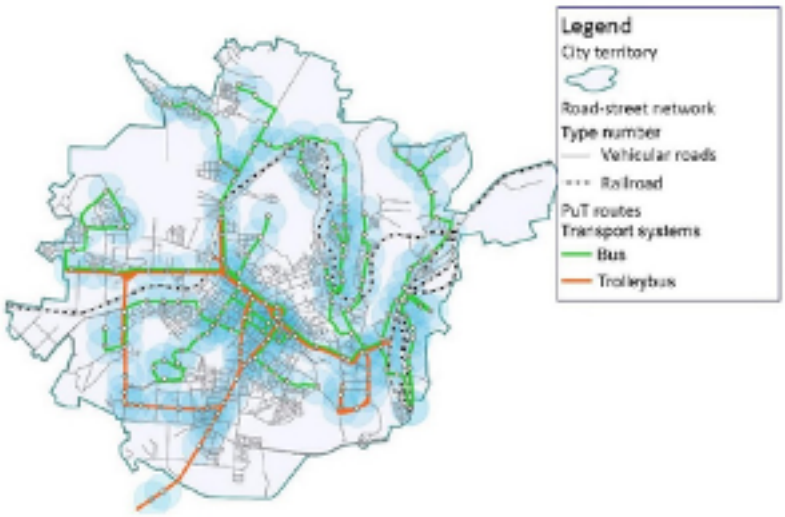


Figure 2 - Public transport network

While the network is relatively well developed, the renewal of both bus fleet and electric trolleybuses is necessary. Today 49% of Poltava's bus fleet consists of low-capacity buses, and over 70% of the rolling stock of the trolleybus fleet is over 15 years[5].

Walking

Poltava's streets do not systematically consider the needs of pedestrians. Ensuring barrier-free pedestrian spaces for individuals with limited mobility poses a significant challenge, considering that 10% of Poltava's population comprises people with disabilities. Additionally, various obstacles often occupy pedestrian space, which hinders the free movement of pedestrians.

Cycling

The city's cycling infrastructure remains undeveloped, yet its geographical layout and broad streets harbor substantial potential for its emergence.

Private vehicles

Although private cars constitute a minor portion of the modal split, Poltava grapples with significant issues stemming from mass spontaneous street parking. The absence of a unified city parking space management scheme and control system exacerbates this problem.

4 Register of urban passenger transport routes as of December 1, 2017, Poltava Transport and Communications Department

5 According to the data of KP "Poltavaelektroavtotrans" as of 01.12.2017

Social issues

The diagnosis revealed that existing public transport vehicles inadequately serve vulnerable groups, including the elderly people and individuals with limited mobility.

Furthermore, several surveys highlighted gender disparities, particularly concerning cycling. Merely 9% of active bicycle users in Poltava are women[6]. This gender gap indicates the perception of cycling as a highly dangerous mode. On the other hand, women are more likely to use electric trolleybuses compared to men.

Road safety emerges as a critical concern in Poltava, especially for pedestrians, who constitute the most frequent victims. Analysis of traffic violence heat maps indicates that areas failing to meet minimal standards for pedestrian accessibility and barrier-free spaces, such as underground pedestrian crossings, tend to be the most dangerous for pedestrians in Poltava.

SUMP vision and goals

Vision for urban mobility in Poltava

> *Poltava is a city of healthy lifestyles, particularly welcoming to young people, that values and supports its elderly population. It maintains a tolerant and safe environment, underpinned by a strong sense of social responsability within the community.*

The Strategic Urban Mobility Plan (SUMP) for Poltava identifies six key priorities alongside associated goals aimed at enhancing the city's mobility landscape:

Priority 1: Improving public transport attractiveness

- Improve the quality of public transport services
- Introduce an efficient public transport management system
- Improve accessibility for individuals with limited mobility
- Develop a multimodal and integrated public transport network
- Prioritise public transport within traffic planning

Priority 2: Parking space optimisation

- Relocate parking from roads and sidewalks in the city centre
- Ensure sufficient parking provision in residential areas
- Implement parking management systems near public and commercial institutions
- Decrease the presence of large-sized vehicles in the city centre

Priority 3: Data collection and analysis, and creation of an intelligent transport system

- Establish a unified information system
- Introduce an electronic payment system for transport services
- Disseminate information to road users
- Upgrade infrastructure in accordance with the latest technologies

Priority 4: Cycling infrastructure development

- Encourage cycling among residents and tourists
- Establish a management mechanism for cycling development
- Improve cycling infrastructure to facilitate quick and safe journeys

6 Occording to the cyclists survey results of "CITYLAB", 2015-2016

Priority 5: Pedestrian spaces enhancements and accessibility

- Increase the appeal of walking as a mode of transport
- Develop safe and comfortable facilities for pedestrians
- Implement a municipal management system for pedestrian infrastructure

Priority 6: Road safety enhancement

- Cultivate a safer urban environment
- Foster improved traffic culture among residents

Key SUMP measures

Under the SUMP framework, specific measures have been identified for each priority area. They can be categorised into five points:

- **Infrastructure measures** to promote inclusivity, safe access to transport, and ensure long-term city resilience.
- **Management and organisation measures** relevant for the development of management systems and strategic documents to support high-quality urban mobility.
- **Monitoring and data collection measures**, essential for assessing urban transport conditions and identifying issues.
- **Capacity building measures** aiming toward raising the awareness among key stakeholders, including politicians and planners, about sustainable mobility.
- **Promotion and awareness measures** aiming toward scaling up citizen participation and understanding the sustainable urban mobility transition.

The following table presents the main short-term measures planned.

Measures	Cost estimates in M€	Proposed Financing Source	Implementation by
Physical investments (Infrastructure, rolling stock, etc.)			
Short term acquisition of 11 buses	0.8M€	Domestic financing	2019
Acquisition of 40 low floor trolleybuses and modernisation of 3 traction substations	10M€	European Bank for Reconstructions and Development (EBRD) loan	2021
Technical (studies, plans, designs, etc.)			
Setup of a working group for cycling infrastructure and appointment of a cycling envoy			

Projected results and impact

The implementation of the measures listed above will lead Poltava to consolidate its regional importance as an ecologically oriented city, committed to enhancing its citizens' quality of life. The following table presents the expected results and impact.

Impact Area	Expected Impact
GHG emissions (SDG 11)	Improved but not quantified
Accessibility (SDG 11)	**Accessibility for the entire population** • Baseline: 87.9%[7] • Improved but not quantified **Accessibility for people with reduced mobility** • Baseline: 11%[8] • Improved but not quantified
Air pollution (SDG 11)	Improved but not quantified
Modal share	Percentage of total trips by public transport • Baseline: 55%[9] • SUMP scenario: improved but not quantified
Road safety (SDG 3)	• Baseline: 0.04 accident/ 1000 inhabit.[10] • Improved but not quantified
Mobilised finance (SDG 17)	10M€ - Loan leveraged through MobiliseYourCity (EBRD)
Infrastructure and assets with committed financing (SDG 9)	The primary focus of Poltava's SUMP is to enhance the attractiveness of public transportation. Consequently, the majority of measures outlined in the Poltava SUMP are related to optimising and restructuring the route network. The key actions include: • Reduce duplication in urban public transport routes • Transitioning away from low-capacity vehicles to alleviate network congestion • Reduce travel time for passengers • Optimise operational costs of the transport system • Establish a network with the most efficient vehicles • Promote the adoption of electric transport • Introduce additional trolleybus routes • Introduce new forms of public transportation such as car sharing, ride sharing (e.g., Uber), bike sharing or municipal taxis • Upgrade infrastructure in accordance with the latest available technologies; • Introduce bicycle infrastructure across all areas of the city, particularly those with recreational spaces and tourist attractions
Expected institutional impact	Poltava's SUMP includes several governance- related actions aimed at establishing effective management systems to guarantee the attainment of its goals and priorities. Expected institutional impact: Poltava's SUMP includes several governance-related actions aimed at establishing effective management systems to guarantee the attainment of its goals and priorities. The expected impact at the institutional level can be deducted from the following list of recommended measures: • Creation of a single centralised management system for public transport in the city • Establishment of a municipal management system of pedestrian facilities • Creation and approval at the municipal level of terms of reference for the development of cycling transport • Establishment of a responsible authority for the organisation and management of the unified data system • Creation of municipal service for parking control • Conduct regular training in the field of management, development of public transport and the collection and analysis of traffic data for members of the relevant local authorities • Development and implementation of a Programme for Street Design • Creation and approval at the municipal level of the terms of reference for the development of pedestrian infrastructure • Establishment of a municipal authority responsible for road safety coordination in Poltava • Inclusion of an independent "road safety audit" component into the projects for street repair and reconstruction

7 Based on data about place of voters registration

8 Characteristics of Urban Passenger Transport, 2008

9 Estimated based of Mobility Survey, Dornier Consulting International GmbH, 2018

10 Information of the Police Department of Poltava in 2015

Highlights

Two years after the adoption of the SUMP, significant progress has been made to make public transport and cycling more attractive in Poltava

Since the SUMP was approved by the Poltava City Council in 2020, the most progress have been made in Priority 1: ***increasing the attractiveness of public transport,*** and Priority 4: the ***development of cycling.***

Priority 1: Attractiveness of public transport

- Effective purchase of 11 buses in 2019 and 40 new low-floor trolleybuses in 2020 (financed by the EBRD)
- Implementation of real-time information systems for passengers, including a mobile app and GPS trackers embedded in trolleybuses
- Development of transport model to improve public transport routes
- Repair of 23 public transport stops, with ten equipped with real-time information systems for passengers
- Preparation of a EUR 4.5 million investment project by the European Investment Bank (EIB), to develop trolleybus network lines and infrastructure, including power station
- Initiation of the process to integrate fares

Priority 4: Development of cycling

- Formation of a working group for cycling infrastructure development
- Preparation and approval of a specific action plan for cycling in Poltava
- Ongoing development of bicycle infrastructure with additional support from GIZ, including bike park installations for schools, libraries, and sports facilities, shared bicycles for public administration, and identification of new cycling routes
- Communication and advocacy efforts have been made in local media and schools, in collaboration with police services, to improve attractiveness and safety of cycling in Poltava

The political situation is hindering the domestic financing of SUMP measures

The main obstacle for the SUMP implementation is the access to domestic public financing, exacerbated by the political situation, and the reallocation of budget to national defence. With international tensions escalating into a military conflict with the Russian Federation, there is little prospect of improvement in the short term.

Due to the limited availability of new or aggregated data, the factsheet has only marginally been updated in 2024.