

Application of Sustainable mobility

A. Profile of the Initiative

Geographic Region	Eastern Europe
Country/Region	Poland
Name of City/Local Authority	Lublin
Organization	City of Lublin
Title, Name and Position of Person(s) Leading the Initiative	
Basic City Data	
Population size: 339,850	
Population Growth Rate(%)-0.70	
Surface Area (sq.km): 147.000	
Population Density (people/sq.km): 2305.000	
GDP Per Capita (U.S.\$): 11658.000	
GINI Index: 0.288	
URL/Webpage of Your City:	
URL/Webpage of Your Initiative:	
Main source of prosperity (e.g. industry, trade, tourism, creative industry, etc.): Food Industry; BPO / SSC; IT / ITC, 5 supporting industries (Logistics and transport, Renewable energy, Automotive, Health Care and Pharmaceuticals, Biotechnology)	

B. Title and Abstract

For a large integrated initiative, please consider submitting up to three initiatives under the same title. For example, you may wish to submit under “Low-Carbon Urban Development for My City” an initiative on public transport, an initiative on energy efficiency in buildings, and an initiative on use of renewable energy.

Title or Tagline of the Initiative	Sustainable mobility
Sub-title	
Start date of the initiative	2010-01-01
Tentative End Date of the Initiative (if not yet completed)	2022-12-31
Thematic Areas	Economic Environmental Technology

Abstract/Short description of the innovative initiative being submitted for Award.(150 words max)

Lublin dynamically implements intelligent and innovative solutions in traffic management and efficiency improvement. The Intelligent Transport System (ITS) is a means of influencing traffic based on collected data on current traffic and environmental situation. Its objective is to ensure optimal transfer of people and goods, which will help improve traffic flow on the city level, and therefore reduce exhaust emission. ITS functions include

the operation of traffic signal and variable-message signs management systems, incident management, number plate recognition, as well as archiving, analysing, planning and information about traffic situation. The actions in the area of collective transport also include the implementation of priorities managed by ITS. The system is complemented by other solutions aiming to reduce CO2 emissions by introducing zero emission buses, promoting electric vehicles and public bicycles, as well as the development of corresponding infrastructure, such as cycle paths, bus stop passenger information, etc.

C. Background Information

Describe the legislative or policy framework under which the initiative is taking place, for example, a public policy document at the central or local government level, a policy statement, a covenant, a compact or internationally recognized agreement including, for example, the Sustainable Development Goals, and/or the New Urban Agenda

The initiative is reflected in strategy papers of the city, such as the Lublin Development Strategy 2020, the Low-carbon Economy Plan for the City of Lublin, the Sustainable Mobility Plan and the Plan of adaptation to climate change 2030 that is being created, which result from international discussion about the necessity of preventing climate changes. These actions will be reflected in the realisation of the Sustainable Development Goals, the Paris Memorandum COP21 and the New Urban Agenda of UN / EU.

D. Summary of the Origins of the Initiative

Describe how the initiative came about and what challenges or issues of sustainable development it is meant to address using the following lead questions as your guide. (350 words max)

1. Describe briefly the reason(s) for undertaking the initiative including social, economic, political or cultural challenge(s) or issues confronting the city/region/community. Include where relevant number of people, enterprises or institutions affected.

Cities, regardless of their size, are vital in the fight against climate change. In accordance with the Paris Memorandum COP21, cities around the world undertake actions to promote renewable energy, electric vehicles, etc. to reduce, among others, harmful CO2 emissions. Together with other levels of the government and the private sector, cities can potentially contribute to reducing global emissions, striving to realise the Paris Memorandum. Lublin understands the need to transform the city in this regard and constantly takes such initiatives. One of these actions is introducing intelligent and sustainable transport.

2. Describe the goals of the initiative in terms of desired change or outcome and timeframe for achieving the change or outcome (for example, change in policy, strategy, business model, technology, means of implementation, financing arrangements, human development and empowerment, measuring and evaluating progress and impact, etc.).

The main objective of the Low-carbon Economy Plan is to improve the living standard and quality of life of the society, realise the EU energy and climate policy and improve air quality. The specific objective concerning mobility is to develop sustainable multimodal

urban mobility and low-carbon transport.

Specific objectives:

- the development and a wider use of collective transport, including the purchase of low-emission fleet, electric or hybrid fleet, trolleybus traction extension, collective transport amenities (e-ticket/passenger information);
- the improvement of road surfaces for fuel savings;
- changes in traffic organisation to improve urban mobility (bus lanes, new road sections, intelligent transport systems – traffic lights/green wave/public transport priority);
- ensuring transport modes intermodality – integration of different modes (the creation of integrated hubs, P&R, B&R, K&R facilities);
- non-motorised mobility development – cycling, walking;
- reducing the use of passenger cars in the city;
- the improvement of road safety;
- providing access to safe, accessible, affordable and sustainable transport systems
- improving road safety by expanding public transport, with special attention to the needs of children, the elderly and the disabled.

3. Describe whether the innovation involves any partnership (public-public, public-private, public-community, etc.) and if yes, who is or was the leading partner(s), the role they each played and whether other parties have benefited or are benefiting from your innovation and how?

The implementation of solutions concerning sustainable mobility requires cooperation with many private partners. Services are provided under agreements with winning tenderers. The largest partner providing services and conducting research is URSUS. Another kind of partners are Lublin universities working on innovations to be implemented in the city – e.g. Lublin University of Technology.

4. Describe the resources used for implementing the initiative, including funding/financing strategy or arrangements and any significant contributions that are not in cash, for example, in human, technical or managerial resources.

To implement the said solutions, it was necessary to involve the capital from the city's budget and European funds. Non-cost resources include human resources responsible for the solutions implementation and system management and technical resources – the necessary infrastructure.

E. Summary of the Innovative Aspect(s) of the Initiative

Describe the innovation for the initiative using the following lead questions as a guide. (350 words max)

1. Describe whether the initiative should be considered evolutionary or revolutionary. Evolutionary would imply that innovation evolved over time based on lessons learned from experience and that the changes or outcomes are cumulative. Revolutionary would imply something quite new or something that has been borrowed from elsewhere but never been tried before in the sector or context in

question and therefore bears a certain degree of risk. If it's borrowed from elsewhere, describe what the linkage with the other preceding experiences is.

The implemented solutions concerning sustainable mobility have mostly evolved based on other cities' experience; however, thanks to the cooperation with scientific entities, Lublin is planning to introduce revolutionary solutions. Lublin is one of the three Polish cities owning electric buses – trolleybuses. Moreover, in 2013, it was the first Polish city to install photovoltaic panels on buses' roofs – nowadays, almost 50% of its buses have panels installed, one bus is fully electric and 38 out of 110 trolleybuses have additional batteries, which allows them to travel a distance of 5 km without tractions. Lublin can also boast a special approach to cyclists. We have the 4th largest city bike system in Poland and the first operating agglomeration bicycle system. The city continues to develop the bicycle infrastructure - cycle paths, self-service bicycle repair stations, and the number of children's bicycles and tandems that allow blind people to travel.

2. Describe where the innovation is being applied, for example, in policy or strategy; planning, design and implementation; business model or financing arrangement; tools and technology; governance and administration; etc

Sustainable mobility development is our priority – we constantly improve the used technologies and undertake actions to make their management system more efficient. Sustainable mobility is reflected in Lublin's policy and is included in the Lublin Development Strategy 2020 and the Low-carbon Economy Plan. The transport network structure and its components' arrangement is another important element included in planning documents.

3. Describe whether there was or are any obstacles or resistance to the innovation and if so, how were/are they being overcome.

Implementing intelligent solutions concerning sustainable mobility requires significant funding. Lublin participates in numerous national and international programmes enabling it to realise these projects.

Another challenge is to transform the residents' thinking and encourage them to use public transport instead of private. To reduce cars' presence in the city centre, the city introduced a paid parking zone, prohibited the access of trucks and created free park and rides at convenient hubs.

The city has also undertaken actions promoting public transport:

- free transport for primary school students, the disabled, pensioners and others specified in the regulation and car owners on car-free days;
- public transport between the city and its rural areas;
- bus stop amenities – information screens, chargers, braziers in winter;

- cycling amenities – apart from standard bicycles, there are tandem and children bicycles and counterflow lanes.

F. Summary of the Desired Change or Outcome and how it is being Measured

Describe how the initiative, and in particular the innovation, is or will be making a qualitative and/or quantitative change and how that change or outcome is being measured. (350 words max)

1. What change(s) or outcome(s) have you already achieved or hope to achieve? Please describe the nature of the change(s) or outcome(s) in, for example, improved quality of life; new levels of social, economic or environmental sustainability, including new attitudes and behavior; improved efficiency, effectiveness, accountability or transparency, etc. Please describe the scale of the change, for example, primarily local, regional, national or global and where possible, please quantify the change(s) or outcome(s) being achieved.

Lublin hopes to achieve a safe and sustainable transport system on a regional scale through improving public transport amenities, building more integrated and environmentally-friendly multimodal transport systems, changing the residents' attitudes and behaviour by promoting car sharing to reduce private vehicle use and adopting cutting-edge technologies and green energies to reduce negative effect on the environment. These actions are designed to improve life quality and economic or environmental sustainability. We have already realised many objectives, but there are still some to realise.

2. What indicators or metrics are you using to assess the change? Describe who is doing the measuring, and who is using the measurements and how.

The indicators are described in the Low-carbon Economy Plan. The most important ones are:

- the CO₂ reduction level compared to the previous years (especially to the base year 2008);
- the number of public transport users yearly, measured by the sold tickets;
- transport connections between the city and its rural areas;
- the congestion level – traffic flow;
- the cycle paths' length;
- the number of people using bicycles as a means of daily transport;
- the number of public bicycle rentals.

The measurements are made by the Lublin City Office employees and used for urban analyses performed by these employees, R&D institutions and private individuals.

3. Describe any specific tools or methods that were developed or applied to improve the chances to attain the desired outcome or change, for example, new working methods, new data and information, new incentives or disincentives, new means of communication and knowledge, new technology, etc.

The Intelligent Transport System – facilitates passage through main routes, detects incidents, suggests diversionary routes and provides information about the time needed to

travel a given road section.

The public transport management system:

- The passenger information system – the public transport vehicles were equipped with GSM/GPRS modems, GPS receivers and equipment for measuring the number of passengers. The main bus stops were equipped with dynamic passenger information displays.
- E-Ticket Card – ecological and easier, a possibility to code student cards.

The main applications supporting the systems:

- <http://www.sip.ztm.lublin.eu/Default.aspx?lang=EN> – bus tracking;
- MPay – purchasing tickets using mobile phones;
- City park app – online payments for parking;
- NextBike – bicycle rental;
- blinke.city – motor scooters rental.

4. How does the initiative and its intended changes or outcomes contribute to a new image or reputation for your city or community?

Introducing intelligent and sustainable transport improves traffic flow and facilitates mobility in Lublin, which directly improves the social and economic relations' quality in the city. Moreover, collective transport development outside the city to the rural areas improves accessibility to remote areas, while reducing barriers to development (links between urban, peri-urban and rural areas).

G. Describe what you think other cities can learn from our initiative and what your city/community is prepared to do to further that learning.

Choose any of the above headings or a particular aspect of the initiative that you wish to highlight and that you think best describes the reasons why the innovative aspect(s) of the initiative could be of benefit to improving social, economic and environmental sustainability in cities and regions and, in so doing, to advance the prosperity and quality of life of their citizens. (400 words max)

Thanks to its engagement in sustainable transport development, Lublin can share its experience – both successes and failures – while also learning itself. The obtained knowledge will be used in developing the Sustainable Mobility Plan, the already introduced solutions and in implementing new projects.

The development and promotion of collective transport remains the city's priority – zero emission buses and trolleybuses, car sharing, bike sharing. In order to do this, the city will introduce city zoning depending on the main preferred means of transport – cycling

and walking in the city centre, buses and cycling in the second zone and private and bus transport in the most remote parts of the city.

To achieve this, it is necessary to further remove transport barriers – build the necessary technical infrastructure and reconstruct the existing one. The main task connected with it is the extension of bus lanes. On the city's outskirts, park and rides will also be created. This year, Lublin is planning to purchase the next 61 electric buses that will make the collective transport system more efficient in the Lublin functional area – Lublin and surrounding municipalities. This will contribute to a further extension of connections between neighbouring municipalities.

We are open to share our experience, our mistakes and successes. At the same time, we believe that learning about other initiatives will help the city to constantly improve the project. It will also pay attention to the aspect that have not been taken into account and omitted so far. Co-creation between cities, including the flow of knowledge and innovation, is extremely important in creating cities that are friendly to their residents. Your initiative pay significant role at this stage – it stimulates creativity and favors establishing inter-municipal partnerships in the field of urban innovation.

H. Relevance of the Initiative to the 2030 Agenda for Sustainable Development, Commonly Referred to as the “Sustainable Development Goals” and to the New Urban Agenda.

Please tick the most appropriate boxes and provide a brief description of the relevance of your initiative in relation to the relevant goal(s). Please also refer to the complete text of the Sustainable Development Goals at:

www.un.org/sustainabledevelopment/sustainable-development-goals/

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
Target 2: Access to safe, affordable, accessible and sustainable transport systems for all
Target 6: Improve air quality and manage municipal and other wastes
Target 8: Support positive economic, social and environmental links between urban, peri-urban and rural areas
Target 9: Improving resource efficiency, mitigation and adaptation to climate change, resilience to disasters and implement holistic disaster risk management
Goal 13: Take urgent action to combat climate change and its impacts

I. Descriptive Materials in Annex to the Document

These are materials destined to allow members of the Technical Committee and the Jury to have a better understanding of the context of your initiative which is a very important consideration. Please do not exceed the specifications below; anything that exceeds these specifications may not be availed to the Technical Committee or the Jury. Please provide, where possible and relevant, the following:

◆Up to 5 press clippings or copies of covers and tables of content of reports published on the initiative.
◆Up to 5 photos (with titles) that best illustrate the initiative (.jpeg at 300 dpi, 2000 x 2000 px max).
◆Up to 5 graphics that best illustrate the initiative (300 dpi). These graphics could illustrate for example, trends, ratios or percentages; tools or technologies; etc.
◆1 map that best illustrates the physical context of the initiative (300 dpi)
◆1 chart that best illustrates the initiative (300 dpi)
◆1 technical drawing (300 dpi)

J. Additional material

Any additional material such as videos should be submitted on a DVD/CD or by email to the Secretariat at info@guangzhouaward.org.

Note: Any additional material should be submitted to the Secretariat via email or mailing.

The Guangzhou Award Secretariat

Tel: +86-20-66289390

Fax: +86-20-66289391

Email: info@guangzhouaward.org

Address: 3901-02, Pearl River International Building, 112 Yuehua Lu, Guangzhou, P.R. China