LOW EMISSION ZONES

A Policy Learning Platform peer review

21-22 November 2023

Final Report

1. Brief presentation of the beneficiary and its motivation to host a peer review

In Romania, Ministry of Development, Public Works and Administration (MDPWA) operates on the basis of the Government Decision no. 477/2020, being a specialized body of the central public authority, with legal personality, which is organized and operates under the Government. It is responsible for implementing government policy on urban mobility. MDPWA also harmonises Romanian legislation with EU legislation on sustainable urban mobility.

At EU level, the EU Green Deal sets the goal of climate neutrality by 2050 by reducing greenhouse gas emissions from transport by 90%. The Sustainable and Intelligent Mobility Strategy contains measures to help achieve this goal, including measures to promote sustainable, smart, safe and healthy urban mobility and sustainable transport solutions - public transport, shared mobility, walking, cycling, etc. - that also contribute to the health and well-being of citizens. Sustainable urban mobility contributes to a range of European policies aimed at promoting low and zero emission mobility, improving air quality and road safety, while generating co-benefits for citizens' health and well-being.

In this context, rules for traffic in urban areas have been developed. These can also be considered as regulations, restrictions or bans, which are implemented to improve traffic and the quality of urban living and are included in sustainable urban mobility plans. Urban Vehicle Access Regulations (UVAR) are a form of traffic management that regulates access to certain urban areas according to vehicle type, age, emission category or other factors such as time of day or day of week. These regulations may include low-emission zones and/or congestion charging and involve a wide range of enforcement considerations. UVARs are becoming a method of managing vehicle flows in urban areas.

MS and their cities are responsible for managing urban mobility policies in accordance with the principle of subsidiarity.

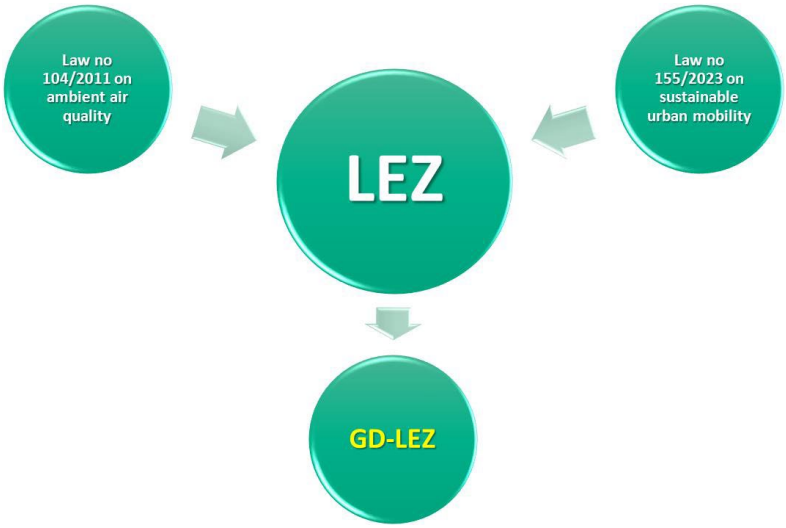
In Romania, on 30 May 2023, Law No 155/2023 on sustainable urban mobility entered into force, setting the general framework for the promotion and management of sustainable urban mobility at national level. The aim of this law is to establish the necessary conditions for a sustainable, equitable, efficient and inclusive mobility system to achieve better mobility conditions in urban and rural areas, reduce greenhouse gases from transport and increase road safety in urban areas, using green and digital solutions. As part of the measures to increase the attractiveness of active mobility and public transport, the establishment of low-emission zones (LEZs) within localities is foreseen, in line with EU regulations.

In order to comply with the provisions of Section 1 - Establishment of LEZs of Chapter VI - Measures to increase the attractiveness of active mobility and public transport of Law 155/2023, the Ministry of Development, Public Works and Administration needs best practices and advice from specialists with expertise in establishing LEZs in urban areas.

According to Art. 25 of the above-mentioned law, a government decision should be drafted by November to regulate the establishment and operation of LEZs within municipalities.

At the level of Romanian legislation, regarding the establishment of LEZs, in addition to the law on sustainable urban mobility, one should also take into account the law on air quality in which, in Annex 2, 13 cities and metropolitan areas are specified in which the implementation of LEZs is required. As an aside, at the meeting on 21-22 November, representatives of the 13 municipalities mentioned in the air quality law will be present.

In this context, at the initiative of MDPWA, an inter-institutional working group has been constituted, which includes representatives of the Ministry of the Environment, the Ministry of Transport and Infrastructure, the Ministry of the Interior Affairs and the National Printing House.



Romania's cities face a number of problems caused by urban sprawl and inadequate public transport services, incoherent road networks, undersized pavements and inadequate parking solutions, but the major problem is traffic, which is very crowded and frequently congested. When we talk about mobility we need to consider not only the transport of people, but also the transport of goods, an important component of urban agglomeration. In 2019, according with data from TomTom portal, Bucharest was the most congested city in the European Union and the 14th most congested in the world, and the time lost in traffic by Bucharest residents at peak hours ends up being more than 227 hours annually, equivalent to 9 full days or 28 working days. The situation is not very good in Romania's smaller cities either. A major problem is the dependence on the personal car and inappropriate behaviour in traffic. Traffic calming measures and those for reducing pollution, greenhouse gases are of prime importance, and the creation of LEZs within cities is an absolutely necessary solution to achieve these goals. In Romania there is no LEZs, we have no experience in this field and we need advice for a more adequate implementation, that's why we ask for advice from you, as experts from other countries which established LEZs and UVARs.

In this context, it is necessary to establish, as a ministry, how to create the right legislative context so that local public authorities can organise themselves.

More clarification is needed on the role of local public authorities, but also on the role of central public authorities/regional and national level.

2. Specification of the policy challenge encountered

In this peer review project, The Ministry of Development, Public Works and Administration (MDPWA) was interested in best practices and know-how from experts who have already worked on projects that have established LEZs in cities. It is important to know the experience of other cities with regard to:

- defining the size, boundaries and pathways of the LEZ;

- defining the categories of vehicles that fall under the scope of the LEZ;
- establishment of vehicle identification and timing of access within the LEZs etting controls, charges and fines;
- establishing support measures for vulnerable populations;
- impact monitoring and reporting;
- public consultation and communication of measures;
- role of regional /national authorities.

During the implementation of the measures on sustainable urban mobility (SUM), we have seen how sensitive this green transition is and it is very important that there is an opportunity to identify, learn, aware, know, implement and disseminate examples of good practice, to highlight and increase the positive effects, from which the citizen benefits. This needs to be properly realised and applied, and even if a number of measures are established that may seem restrictive, they must be taken for the public's good and aim to ensure better living conditions. This also provides added value in terms of adapting SUM planning and the scale of implementation of SUMPs. It can also make a special contribution to the implementation of the National Integrated Energy and Climate Change Plan and the development of Romania's Long Term Strategy (coordinated by the Ministry of Environment), as well as to the improvement of the National Habitat Strategy (coordinated by the MDPWA). Following this peer-review, Romania can become a replicable model for other countries and cities with similar characteristics in Eastern Europe.

Romania is situated in the geographical centre of Europe (South-East of Central Europe), in the north of the Balkan Peninsula, halfway between the Atlantic Coast and the Urals, inside and outside the Carpathians Arc, on the lower course of the Danube (1 075 km), and is bathed by the Black Sea. Landforms consist of three major levels: the high-altitude Carpathian mountain range in the centre, the mid-altitude Sub-Carpathians, hills and plateaus outwards of the Carpathians, and the low-altitude plains, meadows and Danube Delta at the outermost southern, eastern and north-western regions. The main features of the relief units are proportionality (31% mountains, 36% hills and plateaus, 33% plains and meadows) and the concentric display of the major relief levels.

On January 1, 2022, Romania’s usually resident population was 19 042.5 thousand inhabitants, of which 9.8 million were women (51.5%). The age structure of the resident population bears the specific imprint of a demographic ageing process, marked, mainly, by the decrease in the birth rate, which determined the fall in absolute numbers of the young population (0-14 years), although a slight increase in its share is noted in total population (16,2%). The same evolution can be observed in the elderly population (60 years and over): a decrease in absolute numbers (by 24.2 thousand people) and an increase in its weight on January 1, 2022 (25.9%). The usually resident population in the urban area was 10 million people, 52.3% of the country's population.

The territory of Romania is divided into counties at the regional level (NUTS III level) and cities (municipalities), towns and communes at the local administrative level, without a subordinate relationship. Some towns can be declared cities, according to legal provisions. At the regional level, the Romanian territory is organized into 42 counties (including the city of Bucharest). Counties (judete) represent the traditional administrative units in Romania, formed based on geographical, economic and social-political conditions. Counties average 457 200 inhabitants, ranging from 189 700 inhabitants in Tulcea to 1 823 500 inhabitants in the city of Bucharest. The city of Bucharest has a special dual status (both municipality and county) and is organised into six administrative sub-divisions called sectors. The municipal level is comprised of 103 municipalities/cities (municipii), 216 towns (orase) and 2862 communes (comune). Towns play a large economic, social, political and cultural role and have administrative functions. Communes are established in rural areas and comprise one or more villages. There are more than 12 000 villages at the sub-municipal level.

Romania is a unitary state with two tiers of subnational government. The organisation and functioning of public administration authorities and institutions, the status of their staff, administrative responsibility, public services, as well as some specific rules regarding public and private property of the state and administrative-

territorial units is regulated by the EOG no 57/2019 regarding the Administrative Code. Subnational governments have self-governing bodies, namely county councils (Consiliul Judeţean) and local councils (Consiliul Local). Local governments are generally responsible for the financing of the provision of public services, housing and community amenities, local transports, social welfare, most of the costs related to pre-school, primary and secondary education. Since 2010, new responsibilities have been devolved to local authorities, specifically in the areas of education, healthcare and local police. Increasingly, county councils are also in charge of the overall coordination of the efforts and actions of local councils.

The Romanian state tries, through legislative and financial mechanisms, to stimulate the association of administrative-territorial units. The aim of the various associative forms that are established is to attract financial resources from the European level, to simplify the decision-making mechanism at local level, to achieve and jointly manage a public service or an infrastructure that benefits several local communities, at the same quality standards, reducing investment costs and increasing the number of beneficiaries . The modes of association of administrative-territorial units are intercommunity development associations, metropolitan areas, as species of intercommunity development associations, administrative consortia.

Romania has many challenges regarding environment in urban areas, especially on air quality. The vulnerability of Romanian cities to climate change, alongside with their contribution to national GHG emission mirrors the situation faced by cities all over the globe.

The main source of pollution in any large city in Romania is represented by vehicle emissions, followed by industrial emissions. With a degree of urbanization at 76%, road transport accounts for the 96% of the total GHG emission at the national level, while the contribution of energy related GHG emissions produced in cities accounts for 16% of the national share. GHG emissions are a major driver of air pollution.

Equally, the impacts of global warming are already felt in urban areas. The mean temperature in the southern cities of the country is expected to increase 1-2 degrees in the near-term future, while Bucharest alone is the 3rd fastest warming capital at EU level. The mortality rate of heatwaves and extreme heat events is measured at 0.2 and 5.5% for every 1˚C increase in temperature above a location-specific threshold.

Four main environmental challenges have been identified for urgent prioritization and action:

1) the Urban Heat Island effect and heatwaves (UHI);

2) seismic risk;

3) air pollution; and

4) municipal solid waste management.

The effects of air pollution in public health are already being felt in Romanian cities. According to the 2018 report carried out by the Romanian health observatory, air pollution causes the death of over 23,000 Romanians every year, and it is the root cause of such diseases as lung cancer, ischemic heart disease, stroke, lower respiratory infections and chronic obstructive pulmonary disease. In recent years, the percentage of the urban population exposed to pollutant concentrations that exceed the target values set for the protection of human health (for NO2, O3, PM10) shows a slight improvement at national level.

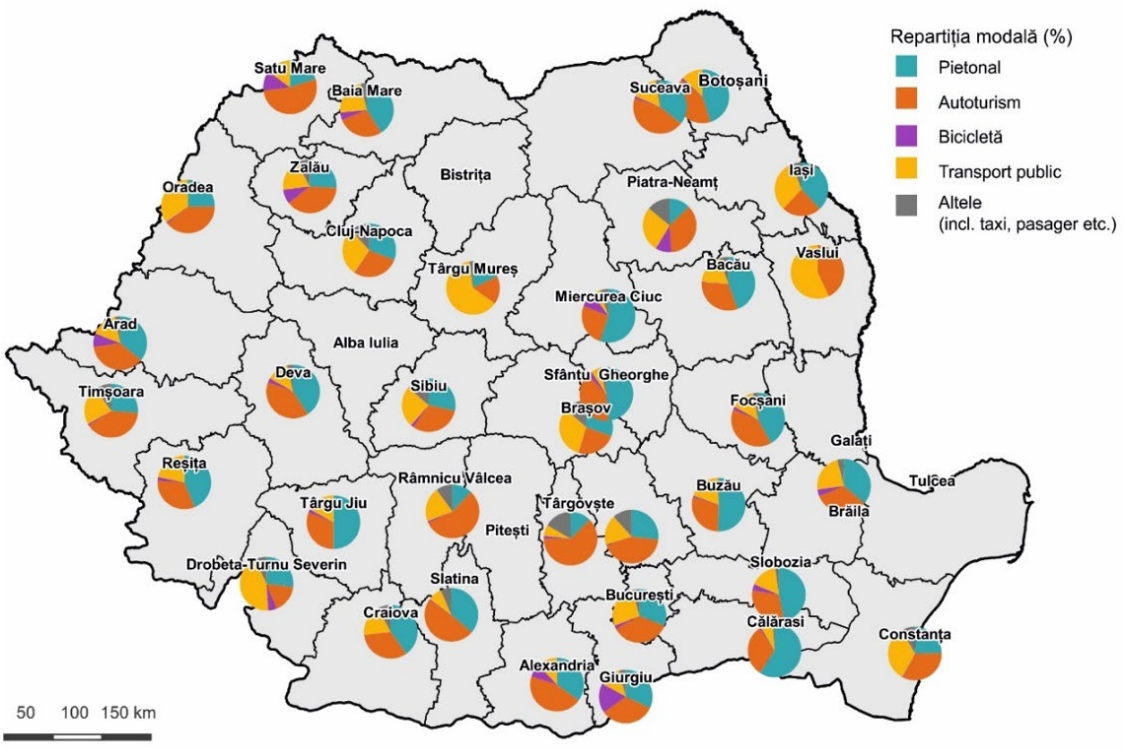
In accordance with the provisions of Law no. 104/2011 regarding the quality of the surrounding air, 13 were established in Romania urban agglomerations (municipalities: Bacău, Baia Mare, Braşov, Brăila, Bucharest, Cluj-Napoca, Constanta, Craiova, Galati, Iasi, Pitesti, Ploiesti and Timisoara). In these agglomerations there are automatic monitoring stations, with the help of which they are carried out monitoring and evaluating the air quality.

Regarding mobility, Romania has a low level of road infrastructure quality, the TEN-T network not yet being completed, and transcarpathian connections missing. The lack of adequate transport connections is an obstacle to territorial integration, leaving certain regions such as North-East and South-West Oltenia isolated. The general state of the road infrastructure remains precarious. Infrastructure is not keeping up with the traffic demand generated by an expanding economy, despite the availability of significant EU funding. The road network is among

the least developed in the EU, with only 38 km per 1 million inhabitants. The main transport routes are characterized by long travel times and traffic jams. This leads to a poor interconnection of the main economic and urban centers with other intermodal transport nodes, such as ports and airports. Certain areas have poor accessibility to transport networks, further investments are needed at the level of national and county roads. At EU level in 2020 there was an average of 530 cars per 1 000 inhabitants. It should be noted that in the period 2000-2020, Romania recorded the highest average annual growth rate of passenger cars among the EU member states (+5.5%). At the same time, the average age of cars in Romania in 2020 was 16.9 years (penultimate in the EU), over 28% of them being over 20 years old, with a very high pollution rate.

The modal split is the basic indicator showing mobility behavior and patterns at urban and inter-urban levels and is therefore a key indicator for understanding the impact of sustainable urban mobility projects and measures. There is still no clear, generally adopted methodology of measuring the modal split, therefore results tend to vary across cities and even EU states and cities. At national level, inland passenger transport expressed in passenger-kilometers (pkm) is dominated by the use of passenger cars (over 80%), followed by motor coaches, buses, and trolley buses (15.4%) and train with only 4.3% (Eurostat data). Although Romania has the 8th most extensive railway network in EU, in terms of performance measured in passenger-kilometers (pkm) it ranks 19th out of 32 European countries analyzed. The percentage of passengers transported by trains has been steadily declining since 2009 (6.3%), to 4.3% in 2018. These values are mostly related to the reduced investments in maintenance, upgrade and extension of railway lines and rolling stock. In 2016 only 4% of the rail TEN-T Core Network in Romania was completed, while the average speed of trains between the largest cities was 72.9 km/h in 2019, compared to 199.4 in Spain, 141.6 in Germany, 113.6 in Poland or 83.7 in Hungary. In the BCG Rail Performance Index Romania ranks 24 out of 25 EU countries

With the development of sustainable urban mobility plans, modal splits were measured for most Romanian cities, for the first time. While various cities in Central Europe are already at the second or even third generation of sustainable urban mobility plans and thus monitoring the evolution of the modal split, Romanian cities started to look at this key indicator only since 2015-2017. The modal split in Romanian cities is still dominated by trips made by car while public transport is less attractive, and cycling is barely present.



Regarding urban mobility patterns in Romanian cities, our cities are confronted with very serious car traffic problems. Because under communism cities were designed with public transport in mind, and because car ownership has risen significantly in most Romanian cities, streets and sidewalks are perpetually congested. Under communism, street-grids were not designed to handle the current traffic and few parking spaces were constructed in usually quite dense neighborhoods. After 1989, the authorities' tendency was to think of these problems in terms of congested flows that need to be eased.

The problems are familiar:

- ✓ traffic is often slow because there are just too many cars in the city;
- ✓ in fact, the number of cars is so great that there is not enough parking space for them, which means that cars are parked on sidewalks (not only around high-rise residential buildings in peripheral neighborhoods, but also on central streets);
- ✓ car traffic slows down buses, trolleybuses, and trams, which therefore cannot keep their schedules;
- ✓ a large number of accidents occur on the streets of Romanian cities compared to the number of accidents that happen outside of cities;
- ✓ especially the largest cities are badly polluted with exhaust gas and noise; cars also contribute to the heating of these cities and are responsible for large percentages of city carbon emissions;
- ✓ car traffic involves non-negligible, recurrent maintenance costs (road repair, replacement of traffic signs, etc.) and forces city officials to be on the lookout for ways of easing congestion, which also involve high costs.

Other negative facts associated with dense car traffic are qualitative, hence less evident: cars "uglify" the environment and diminish the degree of liveliness of the city by reducing the individuals' capacity to see each other, talk with each other, etc.; they incur hidden costs to the city and its residents (e.g., levels of pollution reflect in worse respiratory health; hospitals have to spend more for phonic isolation; high levels of pollution and dust increase the consumption of water, since cars, windows, walls, clothes need to be washed more often, etc.); and they put additional pressure on residents.

The high amount of old passenger cars with high emissions (NOx, CO, HC, PM) is one of the main factors that determine the poor air quality in Romanian cities. Cities like Bucharest, Iasi, Brasov are already tackled by European Commission infringement procedures. Although many cities in Europe (Madrid, London, Milano, Stockholm etc.) are implementing low emission zones, this type of measure has not been replicated by Romanian cities.

It is important to mention that Bucharest tried to establish a low emission zone for the central area. In order to enter the delineated area, drivers would have had to pay, according to their emission standard. Cars with emission standards below Euro 3 would have been even banned from entering the central area. Before implementing the measure, the local administration started a public debate, also inviting representatives of most active NGOs and made a Facebook survey to find out if citizens would accept the proposed restrictions. As it could have been predicted citizens voted against the measure. Unfortunately, after the online poll the local administration decided to revoke the regulation, even if some residents already paid the tax and several surveillance cameras have been bought to provide enforcement. Even if other cities like Stockholm or London also collected data on willingness of citizens to accept such measures, they pursued their ambition to improve air quality. Stockholm used a referendum just after 6 months of testing and reinstalled the congestion charge, even if the vote was quite controversial (just Stockholm residents accepted the measure while those of surrounding settlements voted against). After seeing the positive results of the congestion charge, the percentage of citizens that are in favor of the measure is constantly increasing.

The situation of local public transport is also a major challenge. While many people in Romanian cities use public transportation for daily commutes (primarily because of affordability), the quality of public transport has decreased in many place because of a lack of investments after 1990. Several cities have lost their tramway

network (in some cases, an inherent consequence of loss in density, as explained below) and many have an old fleet of rolling stock. Because of the decrease in the quality of public transport, but also because of a wide-spread demographic decline, many cities in Romania have seen a dramatic decrease in the number of people who use public transport.

Bucharest barely reaches 27% of trips carried out via public transport with one of the most developed systems in the region (metro, tram, bus and trolleybus). Over the last years, cities have made important investments in public transport systems, mostly by renewing their fleet. Although most projects were already approved for funding from European funds, most of the new vehicles have not arrived yet. This can be one of the reasons why the number of passengers transported has been decreasing since 2014, with the metro being the only exception . Even though, cities like Constanţa, Cluj-Napoca, Arad managed to increase the number of trips via public transport.

While investments have been oriented recently towards fleet renewal, only several cities have focused on prioritising public transport. Cluj-Napoca was the first city to implement dedicated public transport lanes and is followed by cities like Brasov, Constanta or Bistrita that are implementing such measures. Bucharest separated most of its tram lines from general traffic and is testing the option in which these corridors can also be used by busses. Oradea installed the first public transport prioritisation system which is used by trams when they risk being late at the next stop. Still, in most cities public transport lines are not separated by general traffic and thus face serious delays due to congestion at rush hours. There are still very few cases when on the same route public transport can be competitive in terms of time compared to transport via personal car.

For MDPWA, promoting sustainable urban mobility is a target activity. For this reason, on 30 May 2023, Law No 155/2023 on sustainable urban mobility entered into force, setting the general framework for the promotion and management of sustainable urban mobility at national level. The aim of this law is to establish the necessary conditions for a sustainable, equitable, efficient and inclusive mobility system to achieve better mobility conditions in urban and rural areas, reduce greenhouse gases from transport and increase road safety in urban areas, using green and digital solutions.

The legislation was developed in line with:

- the provisions of European Regulation No 1370/2007, the European General Safety Regulation (GSR) (2019/2144);
- Romania's urban policy;
- Law No 92/2007 on public passenger transport services in administrative and territorial units;
- the reforms on road safety and regional and urban mobility established under the sustainable transport component.

According to the NRRP, the law on sustainable urban mobility includes:

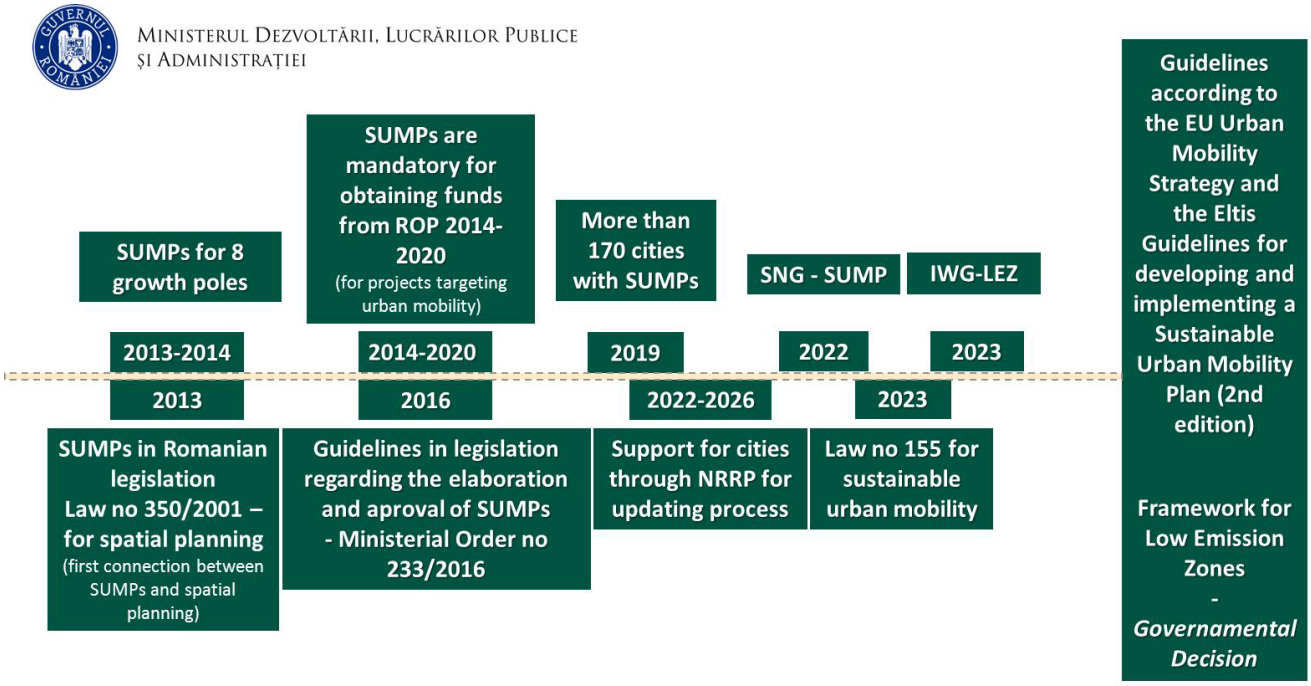
- measures to stimulate the renewal of the public transport fleet with clean vehicles and secure minimum national quality standards and access to public transport;
- the establishment of the Guide to develop Sustainable Urban Mobility Plans in compliance with the Sustainable and Smart Mobility Strategy C (2020) 789/2020 (Commission Communication) and the assessment and quality verification of Sustainable Urban Mobility Plans;
- provisions to oblige urban municipalities to establish low-emission zones, preferential routes (including bus lanes) for clean public transport;
- measures to reduce road safety risk at urban level and measures that allow to limit the space for private cars and the implementation and monitoring of parking policies at local level;
- measures that allow the development of infrastructure to encourage the safe and secure use of public transport, bicycles and walking;

- measures to allow the implementation of intermodal nodes to facilitate transport in the functional urban area/metropolitan area.

As part of the measures to increase the attractiveness of active mobility and public transport, the establishment of low-emission zones (LEZs) within localities is foreseen, in line with EU regulations.

As it mentioned before, in order to comply with the provisions of Section 1 - Establishment of LEZs of Chapter VI - Measures to increase the attractiveness of active mobility and public transport of Law 155/2023, the Ministry of Development, Public Works and Administration needs best practices and advice from specialists with expertise in establishing LEZs in urban areas. According to Art. 25 of the above-mentioned law, a government decision should be drafted by November to regulate the establishment and operation of LEZs within municipalities.

The MDPWA's policy and activity linked with LEZ knows an increase trend, as it can be observed in the next figure:



The specific problems regarding situation of sustainable mobility in Romanian urban areas are:

- ✪ 16% of total greenhouse gas emissions are generated by the transport sector (third largest contributor:
- ★ 95% is generated by road traffic;
- ★ 74% of the vehicle fleet in Romania is older than 10 years (only 16% of vehicles are EURO 6);
- ★ declining public transport - annual passenger numbers have been steadily decreasing (700 million fewer trips between 2014-2020);
- ★ dependence on personal cars - the number of personal cars registered increases annually;
- ★ motorisation rate is lower than the European average (332 cars/1000 inhabitants compared to 722 vehicles/1000 places) but in big cities there is congestion;
- ★ insufficient electric vehicle recharging infrastructure (in December 2021 there were 747 recharging points, according to Deloitte's Future of Mobility in Romania study);
- ★ the volume of bicycle trips is less than 5%, while European cities register 10-20%.
- ✪ the highest rate of road fatalities in the EU (93 deaths per million inhabitants compared to the European average of 44 deaths per million inhabitants).

✪ 18% RES-T for Romania.

By the other side, the main challenges related to low-emission zones in Romania are:

- the situation from Romanian urban areas;
- misalignment with the other urban strategies;
- citizens' mentality;
- difficulty in data collection;
- monitoring system (lack of ownership and of common indicators);
- setting the level of traffic allowed in the LEZ;
- establishing the traffic model;
- setting minimum standards for the establishment of the LEZ;
- alignment of local level with the trends and principles from EU level.

The challenges for LEZ establishment and implementation have to be based on:

- LEZ are one tool to tackle air pollution and congestion;
- should be linked with other measures to be pursued in parallel:
  - promote modal shift to public transport and active mobility;
  - improve capacity and quality of service of public transport;
  - accessibility of public transport services;
  - act on behaviour change for modal shift;
  - increase electrification of fleets, pubic and private;
  - reduce daily commuting intensity and perimeter;
  - increase sharing models (car-sharing & ride-sharing);
  - traffic calming: pedestrian zones, calming small streets, speed limits;
  - parking regulations; Parking (e.g. P+R) at entry points;
  - congestion charges;
  - alternative vehicle routes;
- outside of the mobility sector:
  - heating transition will reduce emissions to air.

3. Participants

The list of peers was established by the Interreg Europe Policy Learning Platform following selection of received applications according to their expertise on LEZs.

The peer review agenda elaborated by the Interreg Europe Policy Learning Platform and coordinated with the MDPWA was structured in a very constructive manner so that to ensure involvement of the stakeholders in interactive discussions on issues, which are crucial for LEZ establishment. Preliminary online meetings with Interreg

Europe thematic experts and peers contributed to good preparation on these issues and effective implementation of the tight agenda.

Below is the list of participants in the peer review:

a) Members of the beneficiary organisation:

- Liviu BĂILEŞTEANU, director, Directorate of Policies and Strategies, General Directorate of Regional Deveopment and Infrastructure, Ministry of Deveopment, Pubic Works and Administration;
- Mădălina ANDREI, counsellor/National contact point for SUMP, Directorate of Policies and Strategies, General Directorate of Regional Deveopment and Infrastructure, Ministry of Deveopment, Pubic Works and Administration;

b) Local stakeholders involved:

- Representatives of:
  - Ministry of Environment, Water and Forests, Romania;
  - Ministry of Internal Affairs, Romania;
  - Ministry of Transport and Infrastructure, Romania;
  - Romanian Car Register;
  - National Company " The National Printing House";
  - Association of Romanian Municipalities;
  - Association of Romanian Cities;
  - National Union of County Councils of Romania;
  - NGOs;
  - Civitta, Romania;
  - Local authority's cities:
    - Bacău;
    - Baia Mare;
    - Braşov;
    - Brăila;
    - Bucureşti;
    - Cluj-Napoca;
    - Constanţa;
    - Craiova;
    - Galaţi;
    - Iaşi;
    - Piteşti;
    - Ploieşti;
    - Timişoara;
- Members of National Support Group for SUMP Optimization;

c) Peers:

- Ana-Maria BASTON, Rupprecht Consult, Germany;
- Antonia SHALAMANOVA, Sofia Green, Bulgaria;
- Alessandro LUÈ, Poliedra - Politecnico di Milan, Milan, Italy;
- Luca COIN, City of Padova;
- Paolo CAMPUS, Municipal Mobility Agency, Milan, Italy;
- Piotr MAZUREK, Lead Specialist, Municipality of Warsaw, Poland;
- Raffaella MICHELON, City of Padova;

d) Interreg Europe team:

- Magda MICHALIKOVÁ, Thematic Expert on Greener Europe, Interreg Europe Policy Learning Platform;
- Katharina KRELL, Thematic Expert on Greener Europe, Interreg Europe Policy Learning Platform;
- Valentine DUFAYE, Event & social media expert, Interreg Europe Policy Learning Platform;
- Elena FERRARIO, Senior Thematic Manager, Interreg Europe Policy Learning Platform;
- Charo CAMACHO, Senior Policy Officer, Interreg Europe
- Alexis FRANÇOIS, Senior Finance Officer, Interreg Europe

4. Policy Recommendations

The adoption of a government decision establishing low-emission zones in Romania's cities is at the basis of this Interreg peer-review project, which is a window of opportunity for:

- design an ambitious, coherent and effective new scheme, based on a combination of the best practices from existing LEZs from across Europe;
- rising awareness for SUMP philosophy and for the necessity to transform especially city centres;
- Romania could aim at designing the best-in-class, nationally harmonised LEZ schemes in Europe.

The key insights of this peer-review project are:

- It's typically air quality concerns that trigger LEZs. There is a strong link between health and transport sector;
- LEZ is a topic requiring a multi-level governance approach (national-local);
- LEZ are potentially causing public resistance and must be carefully designed, communicated and introduced;
- LEZ design requires a multi-disciplinary approach;
- LEZ are one tool to tackle air pollution and congestion;
- Logistics vehicles deserve special attention;
- Should be linked with other measures to be pursued in parallel:
    - Promote modal shift to public transport and active mobility;
        - Improve capacity and quality of service of public transport;
        - Accessibility of public transport services;
    - Act on behaviour change for modal shift;
    - Increase electrification of fleets, pubic and private;
    - Reduce daily commuting intensity and perimeter;
    - Increase sharing models (car-sharing & ride-sharing);
    - Traffic calming: pedestrian zones, calming small streets, speed limits;
    - Parking regulations; Parking (e.g. P+R) at entry points;
    - Congestion charges;
    - Alternative vehicle routes;
- Outside of the mobility sector:
    - Heating transition will reduce emissions to air.

Due to their expertise in issues similar to the faced policy challenges in the peer review, the peers managed to quickly gain insights on the problems. As a result of constructive discussion, the following specific policy recommendations on each question were provided:

1. Multi-level governance

LEZ is a topic requiring a multi-level governance approach (national-local). The recommendations provided by the peers answered the questions:

- What's the role of the national level and the local level?
- How to best insert LEZ into existing planning documents? SUMPs?
- How to harmonise the approach across Romanian cities?

At ***national level***, the recommendations concerned:

- Set national legal frame, set targets, mandate measures;
- Ensure harmonised approach in the country (vehicle standards, road signs, communication, data collection et al);
- Provide a set of uniform guidelines (step by step process), with space for individual design by each municipality;
- Provide resources for coordination and shared services:
    - E.g. national car registry database to include information on emission class (EURO 1-6, type of engine);
    - E.g. national environmental agency for shared information and reporting;
- Offer of financial support, e.g. for ITS, that cities can use:
    - Shared responsibility among different Ministries/institutions;
- National monitoring/multi level dialogue for implementation;
- Because a National Environment Agency exists in Romania, under the Ministry of Environment and in charge with air quality measuring and monitoring, it could become the national agency for monitoring air quality impacts of LEZs, for pooling information on Romanian LEZ (performance, improvement of air quality), for reporting on LEZ (similar to the German Umweltbundesamt/Federal Environmental Agency).

For ***municipal level***, the recommendations are:

- Use of national guidelines to implement the LEZ;
- Develop *Low Emission Zone Plans* (LEZP), directly linked to indicators, measures and targets of national strategies;
- Chose detailed implementation modalities:
    - Ambition of restrictions;
    - Size & boundaries;
    - Area – choose areas with bad air quality, densely populated or frequently visited;
    - Choice of entry points (with or without barriers);
    - Exemptions;
    - Special rules for citizens;
    - Decide on level of fines or charges (possible within the limits of the national law).

LEZ should be integrated into SUMPs and not stand alone. Introduction of LEZ could be an opportunity to update the SUMP's Action Plan and to ensure LEZ is meeting SUMP targets. LEZ should be linked with other SUMP measures: spatial measures, tolls and traffic calming measures are also necessary to sustainably improve the quality of life in cities accessibility of public transport services parking (e.g. P+R) at entry points alternative vehicle routes.

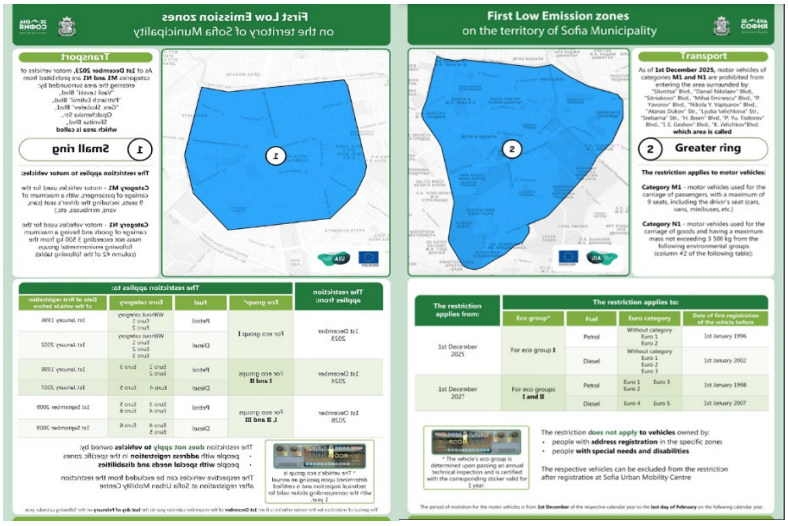
The recommendations also referred to city-to-city cooperation on LEZs. The 13 cities due to introduce LEZs should work exchange regularly on their work: exchange of progress and ideas peer-to-peer sounding boards harmonise local approaches (example of Polish network of cities planning to introduce LEZs).

2. Size, boundaries and pathway

The recommendations on the different principles of location and sizing of LEZ, consisted of the following:

- Pragmatic and demonstrative start with inner city in most cities:
    - Space-based boundary-setting is most common;
    - Highly frequented areas, city centre attractions for locals & tourists;
    - Accessible by public transport;
    - High population density;
    - No or little through-traffic, no highways, no emergency services, etc.;
    - Often coupled with other traffic calming measures, pedestrian zones et al.;
- Sizing according to ease of access control (Padova):
    - Selected an area with few entry and exit streets making camera control of entry and exit economically feasible;
- It's also possible to design zones based on environmental data:
    - Requires good micro-level air quality data;
    - Air monitoring stations across the city;
    - Mobile, calibrated air measuring stations.

Good practice example - Sofia, Bulgaria - LEZ is planned to start small and to grow over time (as can be seen below):



3. Categories of vehicles

The key elements of these recommendations offered by peers are:

- A dynamic approach: restrictions become stricter over time, helping the population to adjust (e.g. allow most EURO class at first, then less and less);
- Removing diesel vehicles brings most benefits – emissions from diesel are higher than from petrol – with special attention to logistics vehicles/vans /buses (e.g. none of these in city centre LEZ of Sofia);
- Additional measures:

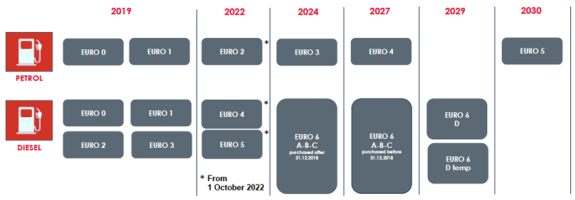
- Electrification of public fleets, e.g. electrification of waste trucks, public buses, etc.;
- Support to private e-mobility;

- Exceptions:

- Always permitted to LEZ:
    - zero emision vehicle (EV, hydrogen, LNG);
    - state vehicles , rescue vehicles, special vehicles;
    - disabled persons' vehicles, school buses (but not public transport);
- Certain number of free emergency entries (for example going to a hospital);
- No exceptions for residents in Germany, Milan (certain number of free entry per year – 40 times);

Milan dynamic vehicle restrictions

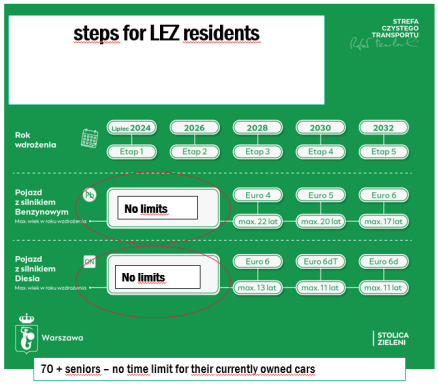
- Access is always allowed for Euro 6 petrol, electric and hybrid vehicles.
- Access is progressively prohibited for personal transport vehicles category M1
- Exceptions – limited number of days during a transition period, difference for residents and non-residents



Good practice

- Exceptions for residents in Sofia, Warsaw.

Warsaw dynamic vehicle restrictions



Good practice

4. Vehicle identification and timing of access within the LEZs controls, charges and fines

As far as the vehicle identification scheme is concerned, there are many ways, each local government applying the method that seems most convenient for the city:

- Poland: In 07.2023, Ministry of Digital Affairs has added information about the EURO emission standard to the database of National vehicles evidence;
- Germany: national federal car registry has information on EURO classes of all German vehicles;
- ***Number plates*** give information about compliance with LEZ:
    - Easier control, less burden for citizens, automated system, can be used for different purposes (parking permit);
    - Number plates can be read by cameras, fixed or mobile;
    - Can also be read by mobile traffic police agents (for cars parked in line, as in Brussels);
    - Higher initial costs;
- ***Stickers*** can also be used to identify vehicles compliant with LEZ:
    - Stickers are dominant scheme in all 48 LEZ in Germany;
    - Easy and quick to implement low tech solution, cheap.

A real problem is how to address foreign vehicles? Good practices and recommendations are:

- no exemptions for foreign vehicles (Milan, Germany);
- no coherent solution;
- possibility to have exemptions for a certain number of days;
- truly harmonised approach would require a joint database at an EU level.

5. Support measures for vulnerable population

Regarding this set of recommendation:

- Application for funding for vehicle switch, amounts depend on type of vehicle
- Exceptions as support to residents and vulnerable groups:
- Disabled persons' vehicles;
- No exceptions for residents in Germany, Milan;
- Exceptions for residents in Sofia, Warsaw (in the early/transition stage);
- Exceptions for elderly citizens (70+) and their cars;
- Too many exemptions would make the measure less effective.

6. Impact monitoring and reporting

Monitoring: impact on air quality:

- To be done locally;
- Regular monitoring of air quality to measure the effectiveness of a low emission zone:
    - Sofia: mobile air quality monitoring device to compare air quality in the low emission zone and outside:
        - Clean Air Fund provides financial support to NGOs to monitor air quality;
        - NGO or citizen-based measuring of air quality could build citizen support for LEZ;

- Milan: air quality monitoring is done 4x / year together with impact reporting on air quality and traffic congestion for the LEZ.

Ways to get insight into ***local emissions*** without measuring through proxys, such as:

- EU car emissions repository (e.g. for Sofia: data of all cars registered in Sofia was requested. This gave information on fleet composition. Based on that, general emissions of all vehicles in a city can be obtained. However, it does not distinguish by areas in cities that are more or less polluted);
- Database of the car emissions from the periodic technical inspections.

Reporting:

- Reporting about LEZs by local level to national level
  - Municipalities are responsible for data collection
  - Reporting about LEZs to the outside by national level
- Example: German Federal Environmental Agency pools information an all 48 German LEZs at national level
  - Collects data from municipalities and reports them
  - Inventory and specifications on all LEZs in Germany
  - Mobile App about LEZ

7. Public consultation and communication

Communicating and building acceptance for LEZ:

- LEZ are potentially causing public resistance and must be carefully designed, communicated and introduced:
  - How to communicate and introduce LEZ?
  - How to involve citizens to build acceptance?
  - Strong political commitment and leadership of Mayors is key;
- Agreements with stakeholders;
- Citizen engagement through public debates;
- Media and information campaigns.

Communication and public awareness:

- Have a strong statement (ex. Mission Sofia without emissions);
- Use of official channels;
- Dedicated webpage;
- Social media campaigns;
- Wide media coverage to raise awareness;
- Leaflets, physical information stands;
- Mobile apps for travel planning, navigation and maps.

Public consultations:

- Residents and all stakeholders should be involved in the ***planning*** process;
- Public meetings with residents and other stakeholders;
- Opinion ***polls*** to understand the support base and specific concerns of citizens;
- Multi-level approach to communication;
    - Establish a ***national*** **one-stop-shop** with information on all cities with LEZs
        - Make it easy for people to access information and ask questions (perhaps under the Environmental Agency with additional budget?)
    - ***Local*** authority websites with information and local contacts.

8. Recommended resources

- Resources on UVARs:

▪ The ReVeAL Toolkit (**https://civitas-reveal.eu/**) consists of:

- 33 factsheets on building blocks;
- The REVEAL guidance;
- The UVAR tool: **http://accessregulationsforyourcity.eu/tool/**;
- Webinars.
    - Good practice - the process of preparation of the Ordinance on the establishment of zones with low emissions on the territory of Sofia Municipality:

▪ INNOAIR project outputs (financed by UIA):

- White book for the introduction and effective operation of zones with low emission zones for motor vehicles on territory of Sofia Municipality;
- Best practice analysis on common global initiatives;
- 131 Ideas for Empowerment In the transition to sustainable urban mobility;
- All available at: **https://sofia-da.eu/en/past/innoair-project/library.html**.

5. Possible calendar of implementation

LOW EMISSION ZONES
A Policy Learning Platform peer review
Bucharest, November 21-22, 2023

Calendar of implementation of the proposed recommendations

Applicability [1]	Recommendations	December 2023	January 2024	February 2024	March 2024	April 2024	May 2024	June 2024	July 2024	August 2024	September 2024	October 2024	November 2024	Comments
Very likely to be applie	Multi-level governance													
Depends on specific p	Size, boundaries and pathway													
Very likely to be applie	Categories of vehicles													
Depends on specific p	Vehicle identification and timing of access within the LEZs controls, charges and fines													
Very likely to be applie	Support measures for vulnerable population													
Very likely to be applie	Impact monitoring and reporting													
Very likely to be applie	Public consultation and communication													

[1] Applicability of the recommendations – to what extent the proposed measures and given recommendations are seen as applicable by the beneficiary organisation.

Value:

Very likely to be applied

Depends on specific political decisions/conditions

Rather seen as not applicable at the moment

6. Conclusions

Thanks to the active involvement of all participants, the peers were able to get deep insight into the policy challenges and provide practically oriented recommendations proven by their specific experience.

The lessons learned from the peer review were shared with all beneficiaries who will established LEZ during the online meeting organized on November 21-22, 2023. The policy recommendations were disseminated to the respective decision makers. The peers' recommendations will also be integrated into the government's decision on the establishment of low-emission zones that is now in the pipeline.

The MDPWA intends to apply under the next Call of the Policy Learning Platform for hosting another interregional peer review or Interreg projects on thematic priorities "***Connected***" and "***Green***", regarding sustainable urban mobility. The topics considered for policy learning are related to existing mechanisms for best practice transfer and identification of policy solutions for the LEZs developed in Romania.

In addition, the MDPWA would like to continue cooperation with the peers through some follow-up actions including targeted exchange with the stakeholders represented by the peers.

The results of the peer review were highly appreciated by all participants: stakeholders and decision makers. The Romanian cities have benefitted from good examples of similar exemples and recommendations to be used in the process of planning their LEZs. For the MDPWA the peer review is a very good basis to build on the next initiatives for ensuring successful implementation and functioning of the LEZs.

Bucharest,

December 15, 2023