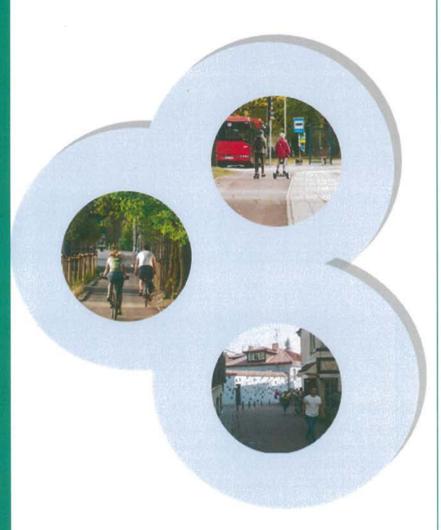
Innovations in Sustainable Urban Mobility Plans

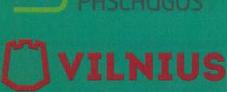
for low-carbon urban transport





Action Plan for Vilnius





June 2019







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June 2019





Interreg Europe Programme

Interreg Europe Programme of interregional cooperation helps regional and local governments across Europe to develop and deliver better policy. By creating an environment and opportunities for sharing solutions, the aim is to ensure that government investment, innovation and implementation efforts all lead to integrated and sustainable impact for people and place.

By building on its forerunner, <u>INTERREG IVC</u> (2007-2013), Interreg Europe aims to get maximum return from the EUR 359 million financed by the European Regional Development Fund (ERDF) for 2014-2020.

Solutions exist that can help European regions become the best that they can be. Today, the EU's emphasis is very much on paving the way for regions to realise their full potential – by helping them to capitalise on their innate strengths while tapping into opportunities that offer possibilities for economic, social and environmental progress.

To achieve this goal, Interreg Europe offers opportunities for regional and local public authorities across Europe to share ideas and experience on public policy in practice, therefore improving strategies for their citizens and communities.

InnovaSUMP Project

The InnovaSUMP project aims at introducing:

- a) New innovations, enhancements & advances in preparation, elaboration, consultation, adoption, implementation, evaluation & monitoring of Sustainable Urban Mobility Plans (SUMPs), based on the EU established methodology, for sustainable lowcarbon urban transport & mobility policies & measures promotion, funding, implementation & enhancement.
- b) Policies & measures that promote the use of & investments in sustainable mobility solutions, can be included in SUMPs, i.e.: high quality PT systems, alternative/clean fuels, electric vehicles, smart ticketing, urban freight logistics, active modes of cycling & walking, new forms of car ownership & use, access control, congestion charging, fair & efficient pricing, ICT mobile applications, ITS transport telematics infrastructure, FTS/DRT, Intermodality improvements for 'seamless' travel, links with Smart Cities mobility initiatives, etc; including stakeholder engagement, public participation, consultation procedures, social media applications, policy formulation and adoption by city and transport authorities, polycentric SUMP approach for regional and district authorities.
- c) Policy & institutional implications for advances in implementing & funding innovative sustainable mobility solutions.
- d) Contribution of SUMP process innovations to: urban regeneration, social inclusion, equity considerations, economy, competitiveness, effective PPPs, citizen society empowerment, cohesion, links with the 'Urban Mobility Package 2013', links with SEAP, mid-term review of White paper & Europe2020 targets.
- a) e) Enhancements to SUMP Methodology: Promotion of low-carbon mobility solutions, Travel behaviour research & potential user response analyses, Integrating pricing & financing measures, Planning for visitors at tourism destinations, SUMP-SEAP-SECAP Integration.





InnovaSUMP Project Partnership



InnovaSUMP facilitates the take-up of Sustainable Urban Mobility Plans, with innovations on travel behaviour, pricing and financing, planning for tourism and sustainable energy, towards low-carbon transport solutions

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Foreword



A capital city of any country is hardly imagined without a modern and well-developed transport system. Vilnius is a city where people, residing and creating, can feel being surrounded by the harmonious environment, and relevant attention of those who are responsible for the quality of transport and related services provided in the city.

Municipality Enterprise "Susisiekimo paslaugos" actively participates in implementation of strategic documents and Sustainable Urban Mobility Plan till 2030, approved by Vilnius City Municipality. The company contributes a lot to the development of sustainable transport system in the city. The company strives to make the city a pleasant experience. It seeks that residents and guests of the capital city can have the opportunity to choose the most convenient way of traveling (walking, cycling, impressively renewed public transport, car sharing systems and other alternative means of movement) without any economic, social, technical or physical limitations. The company pays great attention to the educational activities of the city's youngest residents, and familiarizes them with the urban transport system, traveling opportunities, advises and teaches them the rules of safe and comfortable travelling by public transport and bikes, how not to get lost among the various opportunities offered, and choosing the best.

The implementation of the actions planned in the "Action Plan for Vilnius" is a challenge. However, all the actions are closely related to the company's long-term strategy. Therefore, their implementation is important for the company as a partner of the project InnovaSUMP, as well as for the residents and guests of the city of Vilnius: in two years' time the company plans to humanize at least one street in the Old Town, to install at least one multimodal site, and to fix a missing section of a bicycle path in a picturesque part of the city.

We will implement the actions in cooperation with the City Municipality and our major stakeholders. The funds needed for the indentified actions have been planned in the company's strategic plan for the period until 2030.

Modesta Gusarovienė Director





Acknowledgements:

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Executive Summary

Introduction

Within the scope of the InnovaSUMP project, nearly ten events were arranged, when participants various countries shared their experience about innovative preparation of sustainable urban mobility plans (hereinafter – SUMP). These events have led to some useful lessons and insights, including the following:

- Guidelines for sustainable mobility plans must be adapted to a local context;
- The importance of the financing policy;
- The importance of financing at the national level;
- The importance of harmonisation of political measures and legal acts.

The inspiring example of a properly installed "Park and Ride" site in Exeter (UK), which was presented during one of the events, made us consider adapting multimodal sites in Vilnius.

All actions listed in the Action Plan were discussed and reconciled with experts and stakeholders; then the most suitable ones were highlighted to concur with a current situation.

SUMP status, general description and requirements

Vilnius SUMP is already completed. The entire process from the idea to the approval took 2.5 years, including 1.5 years for the drafting of the plan. First, the city vision was identified: "Travelling in Vilnius – safe, fun and comfortable!". This vision is expected to be enforced by:

- changing travelling habits of residents;
- improving conditions and encouraging to use public transport, to cycle or walk;
- managing and regulating motorised traffic in Low Emission Zones (LEZ) (the city centre, car-free zones, urban freight LEZ, etc.); and
- coordinating urban development (sustainable land use planning, investors' control through the conditions for construction permits, shared spaces, etc.).

During the preparation of the plan, a comprehensive analysis of the current situation was carried out; an active communication campaign was implemented. Within its scope, authors of the plan presented relevant information to stakeholders (e. g., associations of the disabled, cyclists' community, during the events for young people, at the conferences of medical professionals, etc.) and communities; they also arranged open access creative workshops. Moreover, the website http://judumas.vilnius.lt/ (in Lithuanian) was created, hosting all relevant information that is permanently available.





Vision and Goals

Vision and goals of the concerned Action Plan were laid down taking into consideration the vision and goals of Vilnius SUMP, which in turn were drafted following the political measure (Vilnius City Strategic Plan for 2010–2020).

The vision of this document is a step by step improvement of the situation of mobility in Vilnius. The goals are as follows:

- To improve the mobility conditions for pedestrians and cyclists;
- To encourage residents and guests of the city to choose more sustainable ways of travelling.

Action Titles / Headings

The Action Plan contains the following actions:

Action 1. HUMANISATION OF A PART OF A STREET IN THE OLD TOWN

- Implementation of the municipal strategic instrument to protect the Old Town by preventing transit traffic.
- Implementation of Goal 2, Objective 1 of a strategy plan of *SĮ Susisiekimo* paslaugos (hereinafter SISP) humanisation of the Old Town and the city centre by making bicycle and pedestrian traffic safer and more comfortable.

Action 2. INSTALLATION OF A MULTIMODAL POINT AT ŠILAS BUS STOP

- The fulfilment of the targeted actions ensuring Goal 2 of the SISP's strategy to provide the complexity of transport services (synergy of multimodality and components; assurance of transport needs by efficiently exploiting the routing network of PT).
- The possibility to effectively implement the measure is rated as high because of a consistent implementation process.

Action 3. DEVELOPMENT OF BICYCLE INFRASTRUCTURE IN A PICTURESQUE PART OF THE CITY

The following actions are foreseen to be implemented in the Treaty of Political Coalition:

- To develop fast bicycle paths network (at least 70 km of new paths).
- The fulfilment of the targeted actions ensuring Goal 2 of the SISP's strategy to provide the complexity of transport services.
- The fulfilment of the targeted actions ensuring Goal 6 of the SISP's strategy ensuring the integrity of bicycle network connections.

Monitoring process

Monitoring plan shall cover the period from 31/09/2019 through 31/04/2021. It contains laboratory and practical research (i. e., passenger flow observations, data analysis of the public transport passenger flows, analysis of accident rates, etc.) and a





small-scale survey. These measures of the monitoring plan shall be implemented twice: before the implementation of the Action Plan and after.

Conclusions and Recommendations

The relationship with InnovaSUMP project was a limiting factor since the local context revealed the need for supplementary actions other than the ones analysed during the project. Activities were selected upon assessment of the influence made by more than one way of travelling and the positive complex impact. Actions are focused on the promotion of key ways of travelling (e.g., public transport, which is considered a major alternative to personal vehicles) by improving its conditions. They are also focused on the inclusion of the society in education, dissemination of the concepts of urban mobility and diversity of options, as well as in education on the environmental impact of environmental change. Practical implementation of the Action Plan depends on the critical aspects of continuity and synergy between all related documents. The proposed actions may seem like a drop in the ocean, but without that particular drop, the ocean will miss that single drop.





1. Action Plan





1.1. General information

Project: Innovations in Sustainable Urban Mobility Plans for lowcarbon urban transport

Partner organisation concerned: Municipal Enterprise "Susisiekimo paslaugos"

Country: Lithuania

NUTS2 region: Lithuania

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1.2. Policy context

The Action Pl	an aims to impact:	
	Investment for Growth and Jobs programme	
	European Territorial Cooperation programme	9
X	Other regional development policy instrumen	nt
Name of the	policy instrument addressed:	Vilniaus strateginis planas 2010-2020 (Vilnius
		Strategic Plan 2010-2020)

Further details on the policy context and the way the action plan should contribute to improve the policy instruments:

The policy instrument specified in the project application is a long-term strategic planning document, which, at the local administrative level, based on the vision of the future, determines the areas, goals, objectives and concrete actions for the development of the administrative territory. In order to monitor the implementation of the political instrument and ensure its viability, the system of management and monitoring of the Vilnius City strategic plan for 2010–2020 was prepared and approved at the beginning of the process. It is the basis for periodic assessment of the situation and annual reports. The actions provided for in the Strategic Plan are transferred to the city action programmes for ensuring a continuous process of implementation of the actions.

Objectives of the policy instrument target the following four areas:

- 1. Creating quality living conditions for the society;
- 2. Creating a competitive city economy;
- 3. Balanced development of urban areas and infrastructure;
- 4. Improving the quality of urban management.

Only 10 percent of all actions formulated in the Strategic Plan are directly related to the promotion of sustainable urban mobility. Approximately 60 percent of the actions and measures of the political instrument are actions to consolidate the principles of sustainable urban mobility and are mainly related to the implementation of infrastructure measures. 40 per cent of measures can be attributed to low-budget (low-cost measures), which are significant but hardly measurable in terms of benefits and efficiency: public education (events, advertising, information tools), actions for adapting infrastructure to people with special needs (hereinafter referred to as PSN), (e.g., network of tactile surfaces and media, city maps, etc., improvement of passenger information system; training of public transport drivers on provision of services to people with special needs, etc.).

The analysis of territorial planning-based measures and sustainable urban mobility-based measures (e.g., localization of key social infrastructure objects in a residential environment) clearly demonstrates that they





are too abstract (e.g., "Create a network of pre-school education institutions and schools of general education that meets the requirements of efficiency, accessibility and quality").

The policy instrument does not include actions expressed through mobility aspect with strong likelihood of having a very high impact on the formation of mobility habits.

An analysis of the actions concerned by the project in question and envisaged to implement in the policy instrument. The actions formulated in the project policy instrument detail the steps for achievement of the development goals of all four areas identified in the strategy. Linking the actions specified in the policy instrument to the four themes covered by the project (travel behaviour research & potential user response analyses; visitors' mobility at tourist destinations; integration of SUMP-SEAP-SECAP; integration of pricing and financing instruments), only relevant policy instrument actions were analysed.

Some very important actions formulated in the policy instrument and steps that detail them, are **directed at the details of the consequences**, rather than the causes.

During several years of implementation of the political instrument, many changes have taken place in Vilnius and the major one is as follows - understanding of urban mobility has markedly improved among city residents, functionaries and politicians. Thanks to this change, Vilnius City Municipality prepared, and on 19 December Vilnius City Council approved the Vilnius City Sustainable Mobility Plan (hereinafter referred to as Vilnius SUMP). The main objectives of this plan are: multimodality and reducing the use of personal cars.

Particularly ambitious actions of the political instrument for the 10-year period focused on the improvement of public transport services and the prospects of the use of PT. Besides, the goal was formulated to increase the population mobility by using public transport. Many measures have already been implemented or are consistently implemented: monitoring of passenger flows is carried out regularly, a special plan targeting development of public transport services has been prepared for the introduction of new transport modes in Vilnius, the development of public transport lanes is being carried out; routes and traffic schedules are continually optimized based on passenger traffic research results. The high-speed rout network currently being developed has partially implemented proposals of the special plan by supplementing the high-speed network with special non-scheduled high-speed public transport routes; residents are encouraged to use public transport through integration of e-ticketing incentives into tourist mobility.

Other actions envisaged in the policy instrument or already implemented ones: upgrading of public transport fleet for achievement of pollution reduction targets and for integrating the needs of PSN; construction of a public transport terminal in the northern part of the city -is being planned (it will serve urban and suburban passengers in order to reduce the traction of the existing bus station); actions not provided for in the political instrument: effective passenger information system - with the help of innovative IT systems the real-time information about public transport services has been implemented.

Approximately 40 percent of the actions of the political instrument aimed at improving the services of the public transport sector have not been implemented yet. Strong political will is needed for some steps to be implement. So far, the following actions have not been implemented: changing the pricing of public transport travel in a socially just and economically justifiable way and based on real travel time (through a zone or time tariff system); incomplete and fragmented network of high-speed public transport lanes - not all crossroads provide priority traffic conditions for high-speed PT; introduction of a new mode of public transport into the urban public transport (single or partial) priority system has not been launched; B&R (Bike & Ride) sites are





not equipped in transport hubs (their construction is being considered); no passenger information system was created with self-service info and info lines (e.g., touch screens, Braille, simple and intuitive menus), etc. Some actions which were not begun or have not been done so far, are no longer relevant.

Pedestrian traffic receives extremely little attention in the political instrument. The improvement of conditions for pedestrian traffic is oriented only to the territories that are attractive for tourism: e.g.: design and installation of pedestrian zones and trails in the central part of the city by integrating them into the following streets: Gediminas Avenue, Pilies, Vokiečių, Vilniaus, and Aušros vartų as well as the following squares: Stoties, Town Hall, Europe, and Cathedral Square. There is a lack of actions for improvement of conditions for pedestrian and for encouraging people to travel on foot in residential areas and territories of attraction. There is also a lack of action for installing footpaths linking individual residential areas as well as objects of attraction. There is a lack of action for improvement of the mobility of people with special needs. There are steps in the policy instrument which include adaptation of the home environment and transport infrastructure to people with diverse needs of all social groups (disabled people, elderly people, mothers with children, etc.) as well as actions for renewal of PT, and driver training about provision of services for PSN. Unfortunately, the policy instrument does not foresee any actions for provision of opportunities for PSN to move to attraction sites, to public transport sites, and actions for adaptation of leisure areas and facilitating of mobility in the areas.

The document "Vilnius City Traffic Safety Programme 2011-2020" (No. 30-1379) includes the following proposals for pedestrian traffic safety:

- improvement of the level of installation of existing pedestrian crossings and visibility of transitions and illumination during the dark hours of the day;
- the development of pedestrian and bicycle paths, separating such paths from road traffic, and on the streets and roads that do not have a sidewalk building special paths for pedestrian and cyclist traffic; developing pedestrian zones or priority pedestrian streets with or without public transport; applying road sign "Residential Area" in urban residential areas and in the streets of the Old Town;
- the rational arrangement of conjunct pedestrian crossings corresponding to certain categories of public transport stops and streets;
- implementation of traffic management measures (speed limit for vehicles on category D streets close to schools, kindergartens and other places where no public transport is available, and car traffic is less than 700 cars per hour in both directions, by equipping high-rise pedestrian crossings and speed bumps, narrowing the the width of the street carriageway or by changing a design solution).

Currently, with the rapid growth of automation levels (average annual growth of registered cars of about 4%), the rate of car usage and the rapid increase in traffic volume on the streets, including the D-streets, the implementation of road safety measures alone is no longer enough. Actions to increase traffic safety should be focused not only on the implementation of measures to ease the consequences of traffic intensity situations, but also on measures to change the traffic situation. Unfortunately, these actions are lacking in the political instrument. For example, in the context of kindergartens and schools, traffic intensity or public transport traffic should no longer be the main lever for pedestrian traffic safety decisions. The creation of a safe environment in the immediate environment of kindergartens and schools should, in individual cases, include not only the setting of speed limits or embankments, but also the reduction of traffic in general, or even the elimination of traffic. This is the only way to ensure maximum traffic safety in the environment of the objects in question. Such an approach to security would also make it possible to address noise and pollution problems more effectively in the surroundings of educational environment.





The policy instrument includes actions to increase the use of alternative energy in transport by encouraging Vilnius residents to use electric vehicles. However, the measures are not geared towards the ambitious goals, because by 2015 only a pilot network of electric vehicle charging infrastructure is planned. Up to now, the development of the electric car charging network has been mainly driven by the private sector. The location of recharging points installed in the city on the initiative of the private sector is usually not oriented to the guidelines for the development of electric car charging points in the city, which were established and approved in 2017 in the Vilnius City Electric Vehicle Charging Station Distribution Scheme. Today, availability of charging points is not convenient for residents of multi-apartment areas in their immediate neighbourhood because it is not oriented to the needs of the population.

In the city, several urban mobility management and behavioural change actions are taking place. The actions have stimulated efficient and economical use of cars. Their establishment was facilitated by "sharing-economy" tools (e.g., car-sharing services) as well as proactive business and public sector actions through remote working and internet shopping possibilities provided for in the political instrument.

Analysis of related documents complementing the political instrument. Within the scope of the political instrument, several documents complementing the political instrument were planned to be designed targeted at the major objective of the political instrument - Sustainable urban development. Some specific tasks were set to increase the mobility of the population using PT and non-motorized transport and to encourage measures for reduction of the negative consequences of traffic on the environment. In implementing the actions of the strategic plan, three documents were prepared: Vilnius Sustainable Energy Action Plan (SEAP), Action Plan of Vilnius City Municipality for the Development of Renewable Energy Use, and Urban Mobility Plan. As sectoral documents, they had to foresee much more detailed actions related to the implementation of the objectives of the political instrument.

Several actions or sectors (public transport, private and commercial transport, working with the population and training and education) are related to the issues of InnovaSUMP project in the Vilnius City Sustainable Energy Action Plan prepared in 2013. The plan was to reduce greenhouse gas (GHG) emissions by at least 20 percent by 2020 compared to the original data as of 2003. The document examines several sectors generating GHG - the category of buildings, equipment and industry and the category of transport. In 2003 it was noted that GHG emissions from the transport sector accounted for 25-27% of all GHG agents. The key actions for reducing GHG in the concerned document are aimed at reducing emissions from buildings, equipment and industry. Unfortunately, actions for reduction of GHG emissions in the transport sector, were not ambitious at all. Therefore, they partly duplicate the actions of the political instrument and do not complement and detail them. A preliminary forecast of GHG emissions in the transport sector reported an increase by 33.3% by the year 2020. However, the GHG emissions data for 2011 alone showed a tendency for almost 27% of the emissions in the transport sector. It is therefore clear that the actions for reduction of GHG emissions in the transport sector foreseen in the Sustainable Energy Action Plan were either inadequate or abstract or could have been launched at the wrong time.

The Action Plan for the Development of the Use of Renewable Energy Sources (hereinafter - RES) of the Municipality of Vilnius City was prepared in 2014. The document focuses on the implementation of the targets for consumption of RES in the overall final energy balance: the objective for 2020 is to reach 36.1 percent. in the final energy balance. As transport contributes to a significant share of total energy consumption, the above-mentioned action plan identifies specific actions for the transport sector. One of the major actions targets transition to the use of electric cars. The same document predicted the number of 900 electric cars in the city car park in 2018. According to the data of SE "Regitra", only 505 electric cars were



Innovations in Sustainable Urban Mobility Plans for low-carbon urban transport



registered, thus forecasted results were not reached. The document provides an insight that "the municipality has a relatively low potential to reduce end-use energy use with the help of technological measures (e.g.: reduction of vehicle weight, improvement of aerodynamic properties, improvement of internal combustion engine efficiency, automatic tire pressure testing, use of electric vehicles or hybrid vehicles, etc.).). but there is much greater scope for non-technological measures focusing on changing consumer behaviour and adjusting travel patterns".

When analysing the measures envisaged for the implementation of the objectives set out in the document, one can see that the proposals for behavioural change and structural adjustment largely overlap with the actions envisaged in the policy instrument, such as: organizing eco-driving training for drivers of less than 10 years old vehicles (600 drivers); implementing solutions for the organization of the complex transport system (Park & Ride, Bike & Ride, etc.); planning high and low intensity transport and pedestrian zones; limiting traffic of heavy vehicles, etc.; creating conditions for the use of ecological transport - bicycles, electric cars, i.e., designing and building bicycle paths, and facilitating the emergence of electric car charging stations.

Certain measures are difficult to implement from the perspective of time and shall not be proposed from the perspective of benefit and limited technological possibilities. For example, a measure to be implemented by 2020 - introducing a new electric public transport vehicle in the PT system of Vilnius municipality. Today, the implementation of this action is cannot guarantee the efficiency of the service. The Vilnius SUMP approved at the end of 2018, supplemented and elaborated almost all areas related to transport and communications, and provided measures for the promotion of the use of alternative energy resources in transport. Therefore, it is proposed to follow not only the political instrument, but also relevant actions described in Vilnius SUMP.

The five actions outlined in the Action Plan below will, although to a small extent, contribute to the implementation of the above-mentioned policy instrument and the objectives of Vilnius SUMP, and most importantly, some of them will be implemented according to the needs that have already changed today.





1.3. Details of the actions envisaged

Three actions have been selected for the Action Plan as a result of the implementation of the Interreg Europe InnovaSUMP project. They all are mainly concerned with incentives of changing travel habits in the city. The following are the key criteria which were used for selection of the actions: positive impact on multiple (not one) modes of travel and complexity, and increasing multimodal travel opportunities in the city.

1.3.1. Action 1: Humanisation of a part of a street in the Old Town

1. Relevance to the project

The idea of a street humanisation in Vilnius originated from the humanization solutions of some spaces seen during a study visit in Exeter (UK). The area in which the action is planned to be implemented is crucial for giving sense to its function. It is an area of tourist potential, where huge transit traffic flows are observed today, where there is a deficit of spaces for pedestrians, in some places the territory is far from friendly to people with special needs.

2. Nature of the action

It is planned to reorganize the street space in the Old Town to make the movement of pedestrians and cyclists safer and more comfortable. The very first activities of the action will include engagement and education of of stakeholders and the public: residents and business institutions operating in the area will be informed about the intended plans in the street humanization process, vision, goals, reasons for choosing such an activity, and potential benefits for the environment, local economy, local residents, for the well-being of tourists and visitors.

Other activities for implementation of the action:

- Comprehensive analysis of the street and its immediate surroundings (identification of a priority function of the street and its purpose in the territory; analysis of street traffic intensity (flows of motor vehicles, pedestrians, non-motor vehicles, etc.); analysis of parking situation, processes of logistics in the territory);
- 2. Specific measures for the redistribution of street space shall be established by creating convenient and safe traffic conditions for pedestrians and users of non-motorized transport on the street and activities for engagement of public and their familiarization with intended solutions;
- 3. Specific measures may include:
 - 3.1 infrastructural solutions for the safety of pedestrian and cycling traffic, storages for bicycles;
 - 3.2 measures for servicing business establishments (e.g., short-term stops for logistics vehicles);
 - 3.3 changes in traffic management on the street and / or territory;
 - 3.4 implementation of information technology for parking and traffic management;
 - 3.5 issues related to landscaping and small architecture

For giving sense to humanisation of a street, entertainment events with the public will be organized. Attention of the public will be drawn to the main functional space of the territory and the meaning of its positive changes.





Common steps to implementing the action:

- 1. Identification and reconciliation of works on a street in the Old Town, whose space is to be humanized and objects redistributed;
- 2. Conducting a public information and resident engagement in decision-making processes regarding the intended street measures:
- 3. Research on traffic intensity, determination of traffic safety and security, territorial functionalities;
- Identification of decisions and measures to be taken for humanization of the space, increasing traffic safety and security for all road users, and for provision of travel opportunities for people with special needs;
- 5. Conducting preparatory works for procurement procedures for the implementation of the action;
- 6. Performing procurement procedures for the implementation of the action;
- 7. Monitoring of the compliance of the implemented action;
- 8. Execution of monitoring of traffic safety and security, intensity, and changes in transit circumstances.

3. Stakeholders involved

The main target stakeholders for the implementation of the action would be Vilnius Municipality Administration, business companies located in the target area, and the owner of the Action plan (SISP). The municipality's role would include decision-making and implementation of infrastructure measures. SISP would be responsible for solutions of information technologies / programming (if applicable). Businesses will have some indirect roles. They will voluntarily and cooperatively contribute to the process of humanisation of their immediate environment.

4. Timeframe

IV quarter 2019 - II quarter 2021

5. Costs

The action might cost around 20.000,00 Eur.

6. Funding sources

Funding by the owner of the Action Plan – Municipal Enterprise "Susisiekimo paslaugos".





1.3.3. Action 2: Installation of a multimodal point at Šilo bus stop

1. Relevance of the project

The planned action relates to the topics discussed in the project, especially the promotion of the change of travel habits. The idea behind this action came from Exeter's solutions for interactions between different modes of transport. Therefore, the aim is to increase the multimodality of the city and to enable residents to travel using different modes of transport. Unlike the Park & Ride sites seen in Exeter, the concept of a multi-modal site in Vilnius will focus on the needs of pedestrians and people traveling by bicycle and PT, and only to the minimum - the interaction of the personal motorised transport.

2. Nature of the action

The selected multimodal site is in Antakalnis residential area. The residential area has been selected purposefully – seeking more coherence and stronger impact when together implementing other related actions of the Action Plan (e.g., Action 4. Improvement of PT services and Action 5. Promotion of the use of non-motorised vehicles). The aim is thus to ensure complexity with other planned actions.

The main reasons for believing in the success of a multi-modal site are: availability of high-speed PT, a particularly important area for the service of the population of several residential areas, the possibility of installing the missing infrastructure for electric vehicles - charging points that are not present in this residential area to this day. It is planned to provide car sharing service in the surroundings of the point, and to ensure synergy of several systems - Bike & Go (especially for the nearby attraction objects: a college and a post office, etc.). The installation of a multi-modal point is planned near the bus stop Šilo Bridge in Antakalnis residential area.





Activities for implementation of the Action:

- installation of a bicycle storage;
- introduction of measures for road safety of non-motorized transport users (development of bicycle paths, installation of level crossings);





- development of bicycle sharing and scooter sharing services installation of sharing points;
- providing car-sharing near the multimodal point equipment of a car-sharing spaces;
- installation of an electric car-charging station;
- installation of public transport information tools (installation of displays and / or information stands);
- arranging and adjusting the point and its surroundings for needs of people with special needs
- implementation of IT solutions for the convenience of multi-modal point users (introduction of
 integrated mobility management tools for all mobility systems, developed one-application for
 several functions: bicycle storage unlocking system, PT ticket, and ordering of rental services, etc.).

Procedures for informing the public and introducing the idea of multimodal point, information publicity campaign, facilitating better understanding of alternative moving means (distributing handouts, equipment of interactive or other stands etc.).

Common steps for implementation of the action:

- 1. Resolving land ownership issues;
- 2. Obtaining building permits;
- 3. Preparation for procurement procedures;
- 4. Carrying out procurement procedures;
- 5. Implementation of supervisory procedures;
- 6. Multimodal point installation procedures;
- 7. Ensuring compliance with the requirements for people with special needs (SPT);
- 8. Ensuring business opportunities;
- 9. Application of IT solutions;
- 10. Introducing the concept, idea and functions of a multimodal point to the public;
- 11. Analysis of the multimodal point performance and monitoring.

3. Stakeholders involved

The main target stakeholders for the implementation of the action will be Vilnius Municipality Administration and the owner of the Action plan (SISP). The municipality's role would include implementation of infrastructure measures. SISP would be responsible for IT solutions.

4. Timeframe

Provisionally ,II quarter 2020 m. - IV quarter 2020.

5. Costs

Approximately 500.000,00 Eur.

6. Funding sources

The major funding source will come from Vilnius Municipality (some activities will be carried out as a results of another EU funded project called "cities.multimodal" (Urban transport systems in transition towards low carbon mobility).





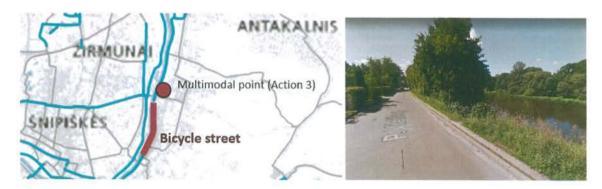
1.3.4. Action 3: Development of bicycle infrastructure in a picturesque part of the city

1. Relevance of the project

The choice of this action emerged during a study trip and a workshop in Thessaloniki (Greece) – from the idea of adapting the scenic locations to non-motorized transport users. Implementation of this action focuses on the progressively increasing flows of users of non-motorized vehicles and electric scooters. The action will ensure safe and uninterrupted travelling by bicycle and other similar means of transport (e.g., in the city of electric scooters) from several residential areas to the city centre where most of jobs are concentrated. At present, the environment is neither safe nor attractive for travelling by alternative modes of transport.

2. Nature of the action

For the implementation of this Action it is planned to reallocate the existing space of P. Vileišio Street. It is planned to install the missing link from the existing bicycle street and the planned multimodal point in Action 3, to the non-motorized transport infrastructure in the city centre. At present, this space is not safe for pedestrians or non-motorized users either in terms of traffic safety or security (especially dangerous to travel when it is dark). There is no other alternative convenient and safe junction for non-motor vehicle users of Antakalnis residential neighbourhood, from the planned to be equipped multi-modal point to the city centre.



When redistributing space of the existing street where only non-transit cars are allowed, it is planned to build a bicycle street of up to 2 km long. It is planned to install infrastructure for pedestrians, elements of small architecture, and lighting. Infrastructure solutions for pedestrians and cyclists, the principles of universal design and traffic safety will be applied. Vehicle speed limits are ensured not only by road signs but also by various horizontal infrastructure speed reduction measures.

Principal solutions are presented in the visualization below.







This action is crucial for improving the quality of life of the local population by exploiting the recreational potential of the area and developing public spaces within it. Street space redistribution for non-motorized transport and pedestrians in particular, as well as installation of required infrastructure will be of great importance for the safety of all communities in the concerned area.

Common steps for implementation of the action:

- 1. Analysis of the situation in the territory (analysis of traffic flows, accident situation (implemented);
- 2. Resolving land ownership issues (implemented);
- 3. Preparation of technical project (implemented);
- 4. Implementation of procedures for informing the public with decisions in the technical project (implemented);
- 5. Preparation for procurement procedures;
- 6. Carrying out procurement procedures;
- 7. Acceptance of the implemented project;
- 8. Carrying out procedures for informing the public about the implemented project;
- 9. Carrying our monitoring of the area;
- 10. Implementation of communication measures on the overall impact of the project on the territory (traffic safety and security situation, changes in traffic flows).

3. Stakeholders involved

The main target stakeholders for the implementation of the planned measure will be Vilnius Municipality Administration and the owner of the Action plan (SISP).

4. Timeframe

IV quarter 2019 m. - IV quarter 2020.

5. Costs

Approximately 1.700,00 Eur.

6. Funding sources

Sources for implementation of infrastructural measure will come from EU and Vilnius municipality. Soft measures will be funded by the owner of the Action Plan – SJSP.





Monitoring procedures in Phase 2

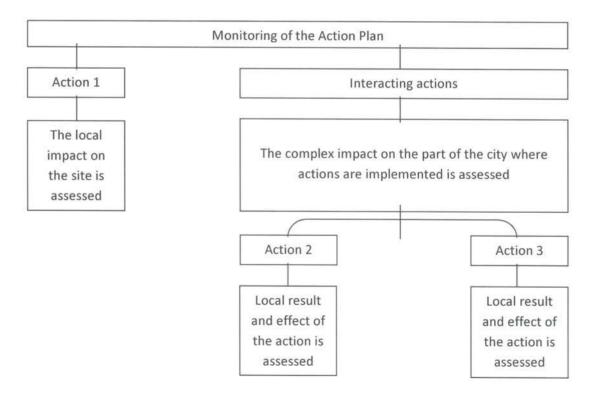
The Action Plan foresees five actions, the results, effects and impact of which on the mobility situation, the other factors determining the quality of life in the city (individually and in combination) must be properly assessed. To this end, monitoring with the following objectives must be carried out:

- · Assess changes in modal travel distribution;
- · Assess changes in transit traffic flows:
- · Evaluate how efficiently the action plan is used;
- To evaluate the experience of the population, the level of satisfaction;
- Assess changes in the level of awareness of the population (population awareness of sustainable mobility, multimodal travel, etc.).

The implementation of the Action Plan will be assessed through:

- Results of implementation of actions (amount of new infrastructure);
- Outcomes of these results (changes in flows, etc.);
- Impact (effect) on other areas (changes in pollution levels, changes in population opinion, etc.).

Taking into account the different nature of the actions and the fact that they will be implemented in different parts of the city, they have different tasks (some of them will work in a complex way), the following monitoring process is proposed:







Target audience:

- Action 1 (Humanisation of a part (street) of the Old Town): residents and guests of the Old Town;
- Interacting Actions 2 and 3: residents and guests of Antakalnis transport district;
- Action 2 (Installation of a multimodal point at Šilo bus stop): residents and visitors of neighbouring Antakalnis and Žirmūnai areas, staff and students of Vilnius Technology and Design College;
- Action 3 (Bicycle and pedestrian infrastructure on P.Vileišio Street): residents, visitors and cyclists of the neighbouring Antakalnis area;

Menotoring methodology:

- Laboratory, instrumental, in-house reserach:
 - Prior to launching the actions (no later than 31.09.2019);
 - After implementation of the actions (no later than 31.04.2021).
- A small-scale survey (100 respondents) to find out the opponion of residens and users about planned and implemented activities:
 - Prior to launching the actions (no later than 31.09.2019);
 - After implementation of the actions (no later than 31.04.2021).
- Detailed monitoring programme, the scope, the list of criteria and indicators to be monitored should be clarified after specification of solutions of the Action Plan;
- Indicators and data recommended for monitoring analysis are presented in Table 1. It is suggested to be filled in in during the monitoring process.





Results of the monitoring of the InnovaSUMP Action Plan



Dimen- sion	Corresponding objectives of the Action Plan	Evaluation method	Area/ target audience	Results prior to launching an action	Results after implement- tation of an action	Change (%)
ANISATION O	F A PART OF A STREET IN THE OLD TOV	WN				
unit	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation	Part of the Old Town (street) and its outskirts			
rs of result						
unit/hour	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	Part of the Old Town (street) and its outskirts			
unit/hour	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	Part of the Old Town (street) and its outskirts			
unit/hour	To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services	•Instrumental research (data available with MESP)	Part of the Old Town (street) and its outskirts			
unit/hour	To encourage residents and city guests to change their travel habints into more To improve PT services	•Instrumental research (data available with MESP)	Konstitucijos avenue and its outskirts			
	unit/hour unit/hour unit/hour	unit To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones s of result unit/hour To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones unit/hour To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones unit/hour To encourage residents and city guests to change their travel habints into more sustainable ones unit/hour To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services unit/hour To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services	ANISATION OF A PART OF A STREET IN THE OLD TOWN "To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones "To encourage residents and city guests to change their travel habints into more sustainable ones for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services "Instrumental research (data available with MESP) unit/hour To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services "Instrumental research (data available with MESP)	Action Plan **Action Plan **Action Plan **Actual implementation its outskirts **To encourage residents and city guests to change their travel habints into more sustainable ones **Or encourage residents and city guests to change their travel habints into more sustainable ones **Or encourage residents and city guests to change their travel habints into more sustainable ones **Unit/hour** **To improve mobility conditions for pedestriants and cyclists **To encourage residents and city guests to change their travel habints into more sustainable ones **Unit/hour** **To improve mobility conditions for pedestriants and cyclists **To encourage residents and city guests to change their travel habints into more sustainable ones **Unit/hour** **To encourage residents and city guests to change their travel habints into more sustainable ones **Unit/hour** **To encourage residents and city guests to change their travel habints into more sustainable ones **To improve PT services* **Instrumental research (data available with MESP) **Unit/hour** **Instrumental research (data available with available with soutskirts **Constitucijos avenue and its outskirts **Constitucijos avenue and its outskirts	Dimension Corresponding objectives of the Action Plan Evaluation method To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services To encourage residents and city guests to change their 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Corresponding objectives of the Action Plan Evaluation method MISATION OF A PART OF A STREET IN THE OLD TOWN Init or To improve mobility conditions for pedestriants and cyclists or To encourage residents and city guests to change their travel habints into more sustainable ones Init/hour or To improve mobility conditions for pedestriants and cyclists or To encourage residents and city guests to change their travel habints into more sustainable ones Init/hour or To improve mobility conditions for pedestriants and cyclists or To encourage residents and city guests to change their travel habints into more sustainable ones Init/hour or To improve mobility conditions for pedestriants and cyclists or To encourage residents and city guests to change their travel habints into more sustainable ones Init/hour or To improve mobility conditions for pedestriants and cyclists or To encourage residents and city guests to change their travel habints into more sustainable ones or To encourage residents 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Innovations in Sustainable Urban Mobility Plans for low-carbon urban transport



6. Parking occupancy	%	To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (parking occupancy in courtyards and free parkings) Instrumental research (data available with MESP)	Konstitucijos avenue and its outskirts	
Effect indicator	rs				
7. Level of pollution	μg/m3	To improve mobility conditions for pedestriants and cyclists	•Instrumental research	Part of the Old Town (street) and its outskirts	
8. Noise level	dB	To improve mobility conditions for pedestriants and cyclists	•Instrumental research	Part of the Old Town (street) and its outskirts	
9. Population and visitor opinion and assessment	Quality dimension (e.g., score 1- 10)	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	• Small scale survey (100 respodents)	Residents and visitors of a part of the Old Town (street) and its outskirts	
Action 2: INSTA		A MULTIMODAL POINT AT ŠILO BUS ST	TOP		
1.	unit	To improve mobility conditions	Actual	Multimodal	
Implemented measures	190 TO S	for pedestriants and cyclists To improve PT services To encourage residents and city guests to change their travel habints into more sustainable ones	implemen- tation	point	
Result indicato	rs of results				
2. Bicycle storage occupancy	%	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	•Instrumental research (data available with operator)	Multimodal point	
3. Scooter point occupancy	%	To encourage residents and city guests to change their travel habints into more sustainable ones	•Instrumental research (data available with operator)	Multimodal point	



Innovations in Sustainable Urban Mobility Plans for low-carbon urban transport



4. Car charging station occupancy	%	To encourage residents and city guests to change their travel habints into more sustainable ones	•Instrumental research (data available with operator)	Multimodal point	
5. Statistics on sharing bicycles	users/day	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	•Instrumental research (data available with operator)	Multimodal point and its outskirts	
6. Pedestrian flows	unit/hour	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	Multimodal point and its outskirts	
7. Cyclist flows	unit/hour	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	Multimodal point and its outskirts	
8. Flows of PT users	unit/hour	To encourage residents and city guests to change their travel habints into more sustainable ones To improve PT services	•Instrumental research (data available with MESP)	Multimodal point and its outskirts	
9. Car flows	unit/hour	To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	Multimodal point and its outskirts	
Effect indicator	s				
10. Level of pollution	μg/m3	To improve mobility conditions for pedestriants and cyclists	•Instrumental research	Multimodal point and its outskirts	No.
11. Noise level	dB	To improve mobility conditions for pedestriants and cyclists	•Instrumental research	Multimodal point and its outskirts	
Action 3: DEVE	LOPMENT OF	BICYCLE INFRASTRUCTURE IN A PICTU	RESQUE PART OF	THE CITY	
Result indicator	rs				
1. Implemented measures	unit	To improve mobility conditions for pedestriants and cyclists To improve PT services To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implemen- tation	P.Vileišio Street	







2. Cyclist flows	unit/hour	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	P.Vileišio Street and its neighbourhood	
3. Pedestrian flows	unit/hour	To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implemenation (monitoring of flow)	P.Vileišio Street and its neighbourhood	
5. Car flows	unit/hour	To encourage residents and city guests to change their travel habints into more sustainable ones	Actual implementation (monitoring of flow)	P.Vileišio Street and its neighbourhood	
Effect indicator	rs				
6. Level of pollution	μg/m3	To improve mobility conditions for pedestriants and cyclists	•Instrumental research	P.Vileišio Street and its neighbourhood	
7. Noise level	dB	To improve mobility conditions for pedestriants and cyclists	•Instrumental research	P.Vileišio Street and its neighbourhood	
Interacting acti	ions 2 and 3: /	ANTAKALNIS TRANDPORT DISTRICT			
Effect indicator	rs				
1. Distribution of travel mode		To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Representative survey	Residents and visitors of Antakalnis neighborhood	
2. Population and visitor opinion and assessment		To improve mobility conditions for pedestriants and cyclists To encourage residents and city guests to change their travel habints into more sustainable ones	Representative survey	Residents and visitors of Antakalnis neighborhood	
3. Automation level	Automation guests to change their travel		Data from SE "Regitra"	Residents and visitors of Antakalnis neighborhood	





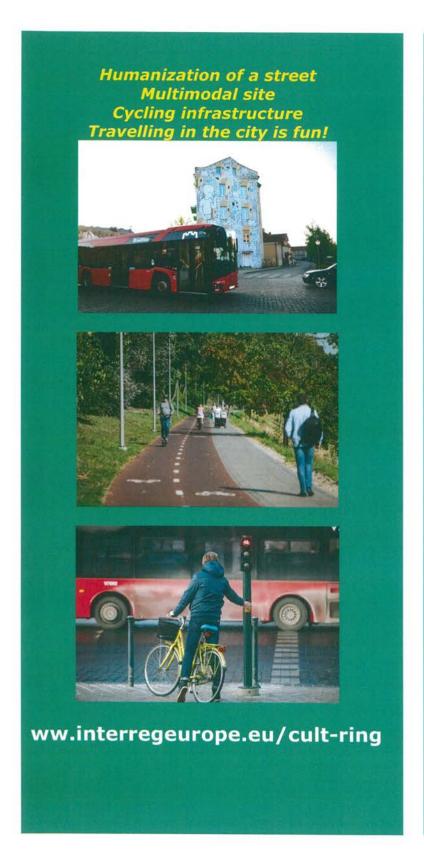
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Municipal Enterprise "Susisiekimo paslaugos"









InnovaSUMP facilitates the takeup of Sustainable Urban Mobility Plans, with innovations on travel behaviour, pricing and financing, planning for tourism and sustainable energy, towards lowcarbon transport solutions

